

**Heal the Bay**

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3-7-17 Board Meeting-Item 7  
Climate Change  
Deadline: 3/3/17 12 noon

March 3, 2017

Jelena Hartman  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814  
[jelena.hartman@waterboards.ca.gov](mailto:jelena.hartman@waterboards.ca.gov)  
[commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)



**VIA EMAIL**

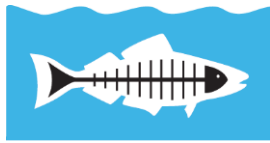
**Re: Consideration of a Proposed Resolution Adopting a Comprehensive Response to Climate Change**

Dear Ms. Hartman and the State Water Resources Control Board,

On behalf of Heal the Bay, we submit the following comments on the *Proposed Resolution Adopting a Comprehensive Response to Climate Change* (Proposed Resolution). Heal the Bay is an environmental organization with over 15,000 members dedicated to making the coastal waters and watersheds of greater Los Angeles safe, healthy, and clean. As part of our mission, we advocate for policies that will slow the progress of climate change when possible, and allow our local communities and habitats to adapt to the stressors of climate change, including sea level rise, ocean acidification, and impacts to our water system. We appreciate the opportunity to provide comments on the Proposed Resolution.

In some ways, California is in a similar situation now as it was ten years ago when the State Water Resources Control Board (State Board) approved **Resolution No. 2007-0059**, its initial resolution addressing climate change. At both times the state of California found itself facing drought conditions, and at odds with a Federal Government that deprioritized this urgent issue. Then, just as now, California has more at stake than most parts of the country with both its enormous coastline vulnerable to the dangers of sea-level rise and its geographical dependence on snowpack to store and slowly distribute water through its infrastructure as the wet season turns to dry. Knowing this, Heal the Bay is encouraged by the State Board's Proposed Resolution that addresses the impacts of climate change and tries to curb the greenhouse gases that got Californians here in the first place.

Since the Proposed Resolution was completed less than a month ago on February 9<sup>th</sup>, 2017, multiple pertinent infrastructure emergencies have taken place. On February 12<sup>th</sup>, Oroville Dam's near catastrophic spill-way fail forced the evacuation of 188,000 people in the foothills of the Sierra Nevada. On Feb 21<sup>st</sup>, Coyote Creek over spilled its banks at a shocking



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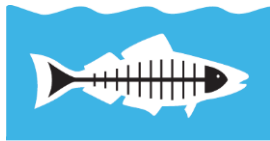
pace in San Jose, resulting in the displacement of 14,000 people and an estimated \$100 million in damages.

Most of California's aging infrastructure, in addition to being in disrepair, was built to accommodate water partitioned from slowly melting snowpack as opposed to flashy, intense rainstorms that are becoming more common. There is little doubt that this will become a new normal and is likely to become exacerbated as the decades wear on. Though the Proposed Draft mentions the need to repair aging infrastructure, we believe the State Board should bolster the language concerning the attention to larger scale projects with a particular focus on if and how these systems may be retrofitted or managed to handle more extreme precipitation events. In this same vein, Heal the Bay appreciates the attention the State Board gave in **Resolution 15**, for the need to work with the Department of Water Quality "to reduce water and wastewater treatment infrastructure vulnerability to flooding, storm surge, and sea level rise."

Considering the Proposed Resolution's strategy for action going forward, Heal the Bay agrees that the California Natural Resources Agency's *California Climate Change Assessments* mentioned in **Whereas Point 3**, the *Safeguarding California* document mentioned in **Whereas Point 9**, the *California Water Action Plan* mentioned in **Whereas Point 11**, and the [Cal-Adapt website](#) mentioned in **Resolution #16**, are all valuable resources, and we appreciate the State Board's efforts to highlight the need for cross-agency collaboration in addressing this issue.

As the Proposed Resolution mentions, The California Natural Resources Agency, provides "a suite of actions developed to build resiliency into California water management." Still we think a few actions should be more directly stated and given more attention within the Proposed Resolution. Though the Proposed Resolution mentions saltwater intrusion as an impact to groundwater basins and highlights the important role that groundwater resources can play in adaptation to climate change, we ask that other important impacts to basins be mentioned, including subsidence which can cause permanent loss of groundwater storage, and the difficulty of managing recharge under more extreme precipitation conditions. Explicitly mentioning these challenges in the Resolutions would serve to highlight their importance as regions are developing strategies to comply with Sustainable Groundwater Management Act requirements.

The State Board's Proposed Resolution takes the dual role not only to "build resilience to the impacts of climate change," but also to "mitigate greenhouse gas emissions," the culprit behind our changing climate. Heal the Bay thinks the State Board should take a page from its sister agency, the California Energy Commission in this regard. In 2005 the staff of the California Energy Commission released *Implementing California's Loading Order for Electricity Resources* which prioritized desirable energy traits within the department such



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as “energy efficiency,” “renewables,” and “distributed generation.” Considering the greenhouse gas mitigation portion of the Proposed Resolution’s ties to energy, Heal the Bay recommends a similar “loading order” type outline when prioritizing water sources and projects. Our priority greenhouse gas-reducing loading order would basically consist of slight variations on the four prioritized energy intensity mitigation measures mentioned in **Whereas Point 4** and **Resolution I. B-E** of the Proposed Resolution as well as explicit prioritization within this list: reduced local consumption, improved efficiency, reliance on local supply, and replacement of fossil fuels by renewable energy when pumping or conveying water.

#### **1) Reduced Local Consumption**

As the Proposed Resolution itself clarifies, if local communities don’t use the water in the first place, there will be no need for any sort of energy input. This puts it as priority one in the loading order.

#### **2) Improved Efficiency**

This is taken directly from the California Energy Commission’s Loading Order #1. To quote their manual but subbing in the water surrogate for each energy term you get:

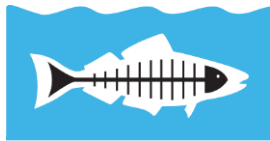
*Using [water] efficient buildings and equipment to decrease California’s per capita [water] consumption reduces the state’s need for new [water sources] and the associated environmental impacts.*

#### **3) Reliance on Local Supply**

Reliance on local supply is a logical third priority because it alleviates the energy-intensive need for long-distance transport of water. It also incorporates two preferable water venues that are mentioned within **Resolution I**: stormwater capture and reuse of recycled water.

While we appreciate the emphasis on stormwater capture as a key strategy in the Proposed Resolution, we ask that the State Board highlight the multi-benefits beyond just water quality, water supply, and flood protection that come from integrating green infrastructure into California’s urban landscapes when advocating for stormwater capture. The combination of benefits, for example reduction of the urban heat island effect, and increased habitat and recreational space, when tied together to stormwater purification, water supply augmentation, and flood management, make the infusion of green infrastructure an appealing, cost-effective choice when combatting climate change. More should be made of these win-win multi-benefits within the document.

#### **4) Replacement of Fossil Fuels by Renewable Energy for Pumping/Conveying**



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If water must be imported over long distances, it makes sense, just like within the California Energy Commission's Loading Order, that it be done using sustainable, low carbon dioxide emitting energy sources.

### **Where Does That Leave Ocean Water Desalination?**

Based on the loading order, some sources of water are likely to be left out in the cold simply due to the State Board's desire to eliminate greenhouse gases where possible. Ocean water desalination plants simply have no place in the current climate change landscape. If ocean water desalination plants are truly constructed as a response to climate change and the resulting increase in drought, they would have to be run completely on renewable energy sources. Otherwise the very energy-intensive act of desalinating water only works to put more greenhouse gases in the air, exacerbating the problem and potentially creating a positive feedback loop. This is not to mention the lack of co-benefits that other water supply options provide, as well as the potential detriment to the marine environment. Given the Board's leadership in setting strong and protective policy on ocean water desalination through its 2015 Ocean Plan Amendment,<sup>1</sup> it would make sense for the Proposed Resolution to reference the analysis done in that document and explicitly discuss the impacts that ocean water desalination may have on attaining our climate mitigation and adaptation goals.

Climate change and its direct and indirect impacts are here to stay for foreseeable future generations. It would be irresponsible for California not to plan and accommodate for its people and resources accordingly, in spite of a lack of support or even push back from the federal government. Heal the Bay sees this Climate Change Resolution as a prescient and necessary document that will help to guide the State and Regional Water Boards in a direction that will benefit the water resources and people of California.

Thank you for your consideration of these comments. If you have any questions please feel free to contact us at (310) 451-1500.

Sincerely,

Steven Johnson  
Water Resources Policy Analyst  
Heal the Bay

Rita Kampalath, Ph.D., P.E.  
Science and Policy Director  
Heal the Bay

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<sup>1</sup> State Water Resources Control Board. (2015). *California Ocean Plan*. Sacramento, CA. Retrieved from [http://www.waterboards.ca.gov/water\\_issues/programs/ocean/docs/cop2015.pdf](http://www.waterboards.ca.gov/water_issues/programs/ocean/docs/cop2015.pdf)