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## Central Coast Regional Water Quality Control Board

July 21, 2016

Kira Redmond, Executive Director  
Santa Barbara Channelkeeper  
714 Bond Avenue  
Santa Barbara, CA 93103

Dear Ms. Redmond:

**RESPONSE TO YOUR MARCH 17, 2016 COMMENT LETTER ON SUBSURFACE  
DESALINATION INTAKE AND POTABLE REUSE FEASIBILITY STUDIES FOR THE CITY  
OF SANTA BARBARA CHARLES E. MEYER DESALINATION FACILITY, WASTE  
DISCHARGE REQUIREMENTS ORDER NO. R3-2010-0011, NPDES PERMIT NO.  
CA0048143**

Thank you for your comments at the March 17, 2016, Central Coast Regional Water Quality Control Board (Central Coast Water Board) meeting in Santa Barbara regarding the City of Santa Barbara's Desalination Facility Subsurface Intake Feasibility Study. Central Coast Water Board staff reviewed your March 17, 2016 letter (attached) and we understand your main concern is the City's use of the 10,000 acre-feet per year (AFY) thresholds in the work plans and subsequent work studies. Our October 20, 2015 letter to the City accepting the work plans (attached) describes several reasons why the Central Coast Water Board's Executive Officer approved these plans, which resulted in the City's subsequent work studies. The subsurface intake work study followed the approved work plan in that the City initially looked at the maximum technological capacity of various subsurface intake options. A subsequent final work study for potable water reuse is pending. Our position has not changed since our October 20, 2015 letter, and this letter reiterates the reasons we accepted the work plans.

**The State Water Board's desalination amendment for intake evaluations does not apply to this facility**

The City's desalination plant is permitted as an existing facility since it is neither new nor expanded. The 2015 Ocean Plan Amendment for Desalination Facilities (OPA) criteria for our jurisdiction on intake evaluations do not apply unless the City were to later expand the desalination facility above existing permitted limits. Although not required by the OPA, the City volunteered several environmental improvements during the process of getting the facility operational once again. These improvements included installing new intake screens, funding a restoration project at Devereux Slough, and conducting feasibility studies for subsurface intakes and potable wastewater reuse. The Water Board and City agreed to include language in the permit requiring these projects. Although these projects are required in the permit, it is up to the City to decide whether to replace the surface intake at the desalination facility with a subsurface intake or to go forward with wastewater reuse options.

**The facility was already permitted and Water Boards use the maximum volume in permitting decisions**

We understand your position that the City should have evaluated the feasibility of alternatives based on producing 3,125 AFY rather than 10,000 AFY as described in your letter. However, Water Boards use the maximum capacity of waste water discharges and intakes because, as permitted, the permittee is authorized to discharge up to the design maximum and the design maximum would have the maximum environmental effect. The California Coastal Commission has permitted the facility to produce up to 10,000 AFY, which is commensurate with the 12.5 million gallons per day brine discharge limit in our Order No. R3-2010-0011. We expect the City to conduct studies relative to the permitted and design maximum, especially considering the severity of our current drought and the unpredictable nature of water supplies on the Central Coast. We expect the City to plan for the possibility of utilizing the permitted and design maximum. The City's original permits are still valid and the City's initial approach, as described in its work plans, was to look at various technological subsurface intake technologies and potable reuse options that could replace the permitted 10,000 AFY. The City has decided to not move on to further detailed analyses of social, economic, and environmental feasibility at this juncture. We do not oppose this approach.

**Work studies looked at various alternatives**

The work plans and work studies have been reviewed through a public process with an expert Technical Advisory Panel (TAP) as described in the following link:

<http://www.nwri-usa.org/santa-barbara-panel.htm>

Water Board staff reviewed the work studies, public comments, and TAP reviews, which indicate that the following six different subsurface intake technology alternatives were evaluated:

1. Vertical wells
2. Lateral beach wells (onshore infiltration galleries)
3. Horizontal collector wells (i.e., Ranney wells)
4. Slant wells
5. Subsurface infiltration galleries – offshore
6. Horizontal directionally drilled wells (i.e., Neodren)

For each of these intake technologies the City considered potential project sites (East Beach, West Beach, Leadbetter Beach) based on their proximity to the City's desalination plant and the existing intake pipeline and the availability of existing geotechnical data. The work study describes how all six subsurface intake alternatives went through technical evaluation to determine the maximum yields achievable at each project site.

**The City will present results of work studies to Central Coast Water Board and revisit options based on these studies and future information**

On July 1, 2016, the City made a request to present its progress at a Central Coast Water Board meeting in May 2017. At the Water Board meeting, we expect the City to report the technically feasible maximum yield from a variety of subsurface intake and potable reuse alternatives. The presented studies will evaluate the technical feasibility of the maximum capacity of potable reuse and subsurface intake options and provide information on whether the

alternatives could independently or combined potentially replace the screened intake at the desalination facility.

The alternatives considered in these work studies also support a future update to the City's Long Term Water Supply Plan. The City will revisit water supply alternatives, including desalination and potable reuse, when decisions on future water needs (e.g., Lake Cachuma allocations) are known. Subsurface intakes will be part of this discussion, and when the Long Term Water Supply Plan is updated, subsurface intakes at the required capacity can be evaluated for desalination's role in the City's future water supply portfolio. Likewise, the upcoming State Water Board regulations on direct and indirect potable reuse of wastewater will factor into the City's Long Term Water Supply Plan. The Water Board encourages the City to go forward with these options and can help with grant opportunities through the State Water Board.

**We will also schedule an informational update on this project to our Board on September 22-23, 2016, in Santa Barbara. We encourage you to attend and address the Water Board at that time. Please note this item is not on the July 28-29 agenda.**

Thank you for your work protecting water quality. If you have any questions, please contact **Peter von Langen at (805) 549-3688 or peter.vonlangen@waterboards.ca.gov** or Harvey Packard at (805) 542-4639 or harvey.packard@waterboards.ca.gov.

Sincerely,



Digitally signed by Michael Thomas  
Date: 2016.07.21 15:51:00 -07'00'

for John M. Robertson  
Executive Officer

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