

Neill, Ben@Waterboards

From: Peter MacLaggan <PMacLaggan@poseidon1.com>
Sent: Thursday, April 28, 2016 1:24 PM
To: Outwin-Beals, Brandi@Waterboards
Cc: Barker, David@Waterboards; Neill, Ben@Waterboards; Waggoner, Claire@Waterboards; Tenggardjaja, Kimberly@Waterboards; Dan Connally (dan.connally@pgenv.com)
Subject: RE: Carlsbad Desalination Plant Questions - 4-18-16
Attachments: Appendix AA - CCC July 17, 2008 Findings Application E-06-013.pdf; Cabrillo Lease Pump Operation Provisions.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Hi Brandi,

Included below are responses to three of your requests for more information, and a report on the status of the other two requests.

Please let me know if you have any questions.

Peter

Peter MacLaggan

Vice President

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From: Outwin-Beals, Brandi@Waterboards [mailto:Brandi.Outwin-Beals@waterboards.ca.gov]
Sent: Monday, April 18, 2016 10:35 AM
To: Peter MacLaggan
Cc: Barker, David@Waterboards; Neill, Ben@Waterboards; Waggoner, Claire@Waterboards; Tenggardjaja, Kimberly@Waterboards; Dan Connally (dan.connally@pgenv.com)
Subject: Carlsbad Desalination Plant Questions - 4-18-16

Good Morning Peter-

The following are questions/comments that we have regarding the report of waste discharge (ROWD) for the Carlsbad Desalination Plant (CDP):

1. Appendix A (RCF 19) and Appendix B (Section 2.A.i [page 11]) state the following: A review of the site-specific applicability of subsurface intake technology supported by a hydrogeological study of the subsurface conditions in the vicinity of the CDP concluded that the subsurface intakes studied at that time were not feasible due to limited production capacity of the subsurface geological formation, poor water quality of collected source water,

excessive cost, and environmental considerations (i.e., construction impacts, operational impacts, and aesthetics). However, we are unable to locate any information in the ROWD (or its attachments) that support this assertion. Please provide the page numbers in the ROWD (or its attachments) that conclusively support the assertion that the subsurface intakes were found to not be feasible due to limited production capacity, poor water quality, excessive cost, and environmental considerations.

The first paragraph of RCF 19 is pasted below with red text that has been added to indicate the specific location of the subsurface intake feasibility findings in these documents. The FEIR and California Coastal Commission findings referenced in Appendix B are the same documents that are described below.

The feasibility of various intake configurations (beach wells, slant wells, horizontal wells, offshore subsurface infiltration galleries, and the existing EPS intake) was extensively studied in the Regional Water Board's 2009 Water Code 13142.5(b) determination for the Carlsbad Desalination Project (see Appendix O, Order R9-2009-0038 **See findings 34 through 37 located on pages 7 and 8 of Order R9-2009-0038** and Appendix P, Carlsbad Desalination Project Flow, Entrainment, and Impingement Minimization Plan **see Section 4.2 Alternative Desalination Plant Intake Technologies located on pages 4-3 through 4-12**); City of Carlsbad's Final Environmental Impact Report for the Carlsbad Desalination Project (see Appendix Q, City of Carlsbad EIR 03-05 **see Section 6.3 of the FEIR located on pages 6-5 through 6-7**); and California Coastal Commission's Coastal Development Permit (see Appendix R, California Coastal Commission CDP E-06-013 **The findings enclosed in Appendix R are related to the California Coastal Commission's (Commission) approval of Poseidon's Marine Life Mitigation Plan. The Commission's findings regarding the feasibility of the subsurface intakes are included in the Commission's Recommended Revised Findings – Coastal Development Permit Application E-06-013 Poseidon Resources (Channelside) LLC, July 17, 2008 (the "July 17, 2008 Findings") which is attached to this email. The specific page references for the Commission's findings regarding the feasibility of subsurface intakes in the July 17, 2008 Findings are as follows: page 7 of 133 (bullet at top of page); page 35 of 133 (paragraph 3); bottom of page 55 through page 66 of 133; and Exhibit 4 (Diagram of Subsurface Intakes considered). Poseidon apologizes for providing the incorrect reference to the Commission's subsurface intake findings and requests the San Diego Regional Water Board accept July 17, 2008 Findings as an amendment to Poseidon's September 4, 2015 Amended Report of Waste Discharge (ROWD).**) review phases of the CDP. A thorough review of the site-specific applicability of subsurface intake technology supported by a comprehensive hydrogeological study of the subsurface conditions in the vicinity of the CDP concluded that the subsurface intakes studied at that time were not feasible due to limited production capacity of the subsurface geological formation, poor water quality of collected source water, excessive cost, and environmental considerations (i.e., construction impacts, operational impacts, and aesthetics).

2. As we discussed last Tuesday, the ROWD references a fish return outfall but does not request the addition of a new discharge location, nor does it provide specific information regarding the location of the proposed discharge location. Please submit an amended ROWD including additional information/supporting material to assist us with permit development, including but not limited to an antidegradation analysis for this new discharge location.

This item is under review with more information to follow.

3. Please provide a copy of the agreement that exists between the Encina Power Station and Poseidon describing the operation of the intake pumps and shared effluent channel.

A copy of the pump operation provisions from the Second Amended and Restated Lease and Easement Agreement between Cabrillo Power I LLC and Poseidon is attached to this email (Cabrillo Lease Pump Operations Provisions).

Additionally, Appendix O, Order No. R9-2009-0038 includes the following provision regarding use of the Encina Power Station (EPS) cooling water pumps for the benefit of the CDP when the EPS is cooling water system is not flowing enough water to meet the needs of the CDP:

Finding 54. EPS's operation are regulated in part by Regional Board Order No. R9-2006-0043 (NPDES No. CA0-001350) issued to Cabrillo Power I, LLC on August 16, 2006. The Discharger's and EPS' use of the intake structure in accordance with Order No. R9-2006-0065, and the March 27, 2009 Minimization Plan during co-location operations to the CDP, does not constitute "cooling water flow" as that term is used in Section V.B. of Order No. R9-2006-0043. Therefore, EPS need not comply with Section V.B., but shall continue to comply with Sections V.A and V.C. of Order No. R9-2006-0043, when operating the intake structure during co-location operations to benefit the CDP.

4. Pursuant to Ocean Plan section III.M.2.b.(2), please provide information regarding whether or not the requested increase in influent/effluent from the facility is consistent with an applicable urban water management plan prepared in accordance with Water Code section 10631, or if no urban water management plan is available, other water planning documents such as a county general plan or integrated regional water management plan.

The San Diego County Water Authority (SDCWA) is currently updating its Urban Water Management Plan (2016 UWMP). SDCWA staff anticipate the 2016 UWMP update will identify a need for the additional desalinated water from the expanded CDP. The SDCWA Board is expected to consider approval of the 2016 UWMP in July 2016. Copies of the draft and final 2016 UWMP will be provided to the San Diego Regional Water Board as they become available.

5. Please provide the outcome of conversations Poseidon has regarding the possible use of the Encina Ocean Outfall for a portion of the effluent from the CDP.

Poseidon has advised the Encina Wastewater Authority (EWA) of a possible interest in using the Encina Ocean Outfall for a portion of the effluent from the CDP. More information to follow as the discussions between EWA and Poseidon advance.

I thank you in advance for your urgent attention to these questions/comments. As we continue to develop the draft permit, we may have additional questions/comments. In order to continue to develop the draft permit as quickly as possible, I will pose those questions/comments as they arise.

Brandi Outwin-Beals, PE
Senior WRCE, Source Control Regulation Unit

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