

CW-640063; BNeill

Meeting Agenda

Carlsbad Desalination Project – NPDES Permit Development Update

Date and Time

Tuesday, September 27, 2016
10:00am-12:00pm

Location

California Regional Water Quality Control Board, San Diego Region
Third Floor Library
2375 Northside Drive, Suite 100,
San Diego, CA 92108

Teleconference

Phone number: 1-888-808-6929 or 213-787-0529
Access code: 2535683

Meeting participants

Entity	Staff
Poseidon	Peter MacLaggan Kelly Huffman Craig Johns Josie McKinley Michael Welch Tim Hogan
San Diego County Water Authority	Toby Roy Robert Yamada
San Diego Regional Water Board	David Barker Brandi Outwin-Beals Ben Neill Dan Connally
State Water Board	Claire Waggoner Kim Tenggardjaja Daniel Ellis Phil Wyels Marleigh Wood Adriana Nuñez

Jeremy Crutchfield

*Renan
Jauregui*

Agenda Items

1. Introductions
2. Status of Water Board review of ROWD Addendum
3. Revised Hydrodynamic Discharge Modeling Report
 - a. Location of the zone of initial dilution (ZID)
 - b. Location of the brine mixing zone (BMZ)
4. Location of outfall for fish return system
 - a. Note: Figure 7 from Report of Waste Discharge (ROWD) must be updated
5. Alternative options for brine disposal
 - a. Encina Ocean Outfall
6. Potential impacts, benefits, and mitigation requirements
 - a. Status of current mitigation
 - b. Future mitigation requirements
7. Permit renewal schedule
8. Additional questions/discussion

**Alternative Brine Disposal Option
24 MGD to the Encina Ocean Outfall**

Feasibility Criteria	Feasibility Assessment Findings
Technical	<ul style="list-style-type: none"> • State laws and regulations encourage the maximum beneficial use of recycled water. • In recognition of these policies and local and regional water supply needs, the Encina Wastewater Authority (EWA) has initiated a study to identify opportunities for beneficial use of 100% of the plant effluent, which is an indication that there may not be any effluent available for blending with the brine from the CDP. • Brine from the CDP cannot be discharged directly into the sewer collection system due to existing water recycling facilities relying on the Encina Water Pollution Control Facility (WPCF). A dedicated pipeline would need to be constructed to convey the brine from the CDP directly to the Encina Ocean Outfall. • Assuming there is sufficient effluent available for blending with the CDP brine discharge,¹ the improvements required to transport 24 MGD of brine to the Encina WPCF to comingle with the WPCF's effluent and dispose of it via the Encina Ocean Outfall include: <ul style="list-style-type: none"> - Dedicated brine pump station; - 1.8 miles of 36" diameter brine conveyance line; - Conversion of existing influent equalization tanks into brine equalization storage (absent equalization, brine dilution capability limited to minimum diurnal flow of 7 MGD); - Outfall connection and - Modifications to the diffuser to comply with initial dilution requirements.
Environmental	<ul style="list-style-type: none"> • EWA is not able to accept brine discharge during large storm events. As a result of this limitation, comingling the brine discharge from the CDP with treated wastewater from the Encina WPCF and discharging the combined flow via the Encina Ocean Outfall does not reduce or eliminate the need for the proposed intake/discharge modifications. • Influent equalization no longer available to contain peak storm events. • 24 MGD of treated water dedicated to brine disposal is not available for beneficial reuse. • The impact of the comingled brine discharge on marine life mortality has not been determined. • Impact on initial dilution requirements and other conditions in EWA discharge permit have not been determined. • The increased energy consumption for brine disposal has not been determined.
Social	<ul style="list-style-type: none"> • 24 MGD of treated water dedicated to brine disposal is not available for beneficial reuse. • Congested construction corridor would result in temporary traffic impacts and construction delays.
Economic	<ul style="list-style-type: none"> • Capital cost for brine pump station and brine conveyance line \$52,900,000. • Brine pump station operation and maintenance costs have not been determined. • City of Carlsbad franchise fee for granting access to the public right-of-way has not been determined. • Capital cost for reconfiguration of equalization tanks and interconnection to the Encina Ocean Outfall has not been determined. • EWA fee for granting long-term access the equalization tanks and ocean outfall to a non-member has not been determined. • EWA fee for ongoing operation and maintenance services for non-member has not been determined.
Timeliness	<ul style="list-style-type: none"> • Six years to complete permitting, property acquisition, and construction.

¹ Currently, the average annual discharge from the Encina WPCF ranges from 23 MGD to 27.5 MGD.