
SECOND WORKSHOP FOR

POSEIDON'S HUNTINGTON BEACH DESALINATION PLANT

PERMIT RENEWAL AND WATER CODE 13142.5(b) DETERMINATION

PRESENTERS:

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ITEM NO. 3

MAY 15, 2020

AGENDA

1. OVERVIEW OF THE PROPOSED DESALINATION PROJECT
2. REVIEW FROM DECEMBER 6, 2019 WORKSHOP
3. WORKSHOP FOCUS AREAS
 - A. IDENTIFIED NEED FOR THE PROPOSED FACILITY
 - B. MARINE LIFE MITIGATION REQUIREMENTS
4. NEXT STEPS

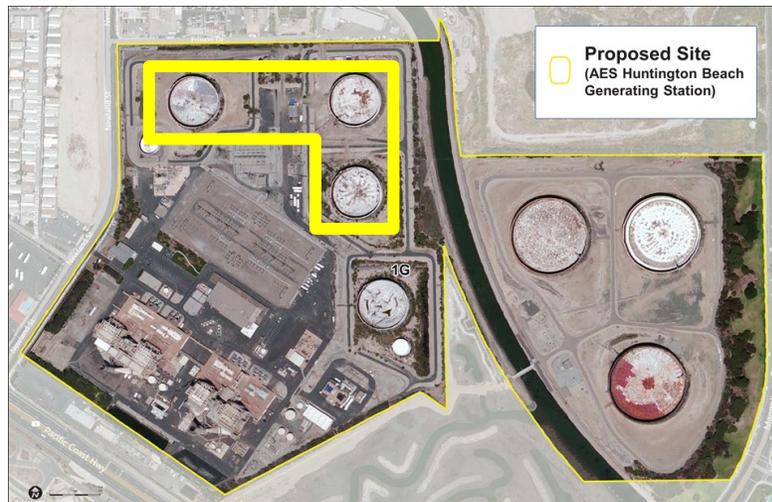


OVERVIEW OF THE PROPOSED DESALINATION PROJECT (FACILITY)

- PROPOSED FACILITY DESCRIPTION
- PROPOSED INTAKE AND DISCHARGE SYSTEMS

PROPOSED DESALINATION FACILITY

- At the AES Huntington Beach Generating Station (HBGS) property, 12 acres would be used to treat seawater using a Reverse Osmosis Treatment System
- Produce 50 million gallons per day of potable water for Orange County
- About two gallons of seawater are used to produce one gallon of potable water



PROPOSED INTAKE AND DISCHARGE SYSTEMS

Seawater Intake and Brine Discharge Systems at the AES HBGS:

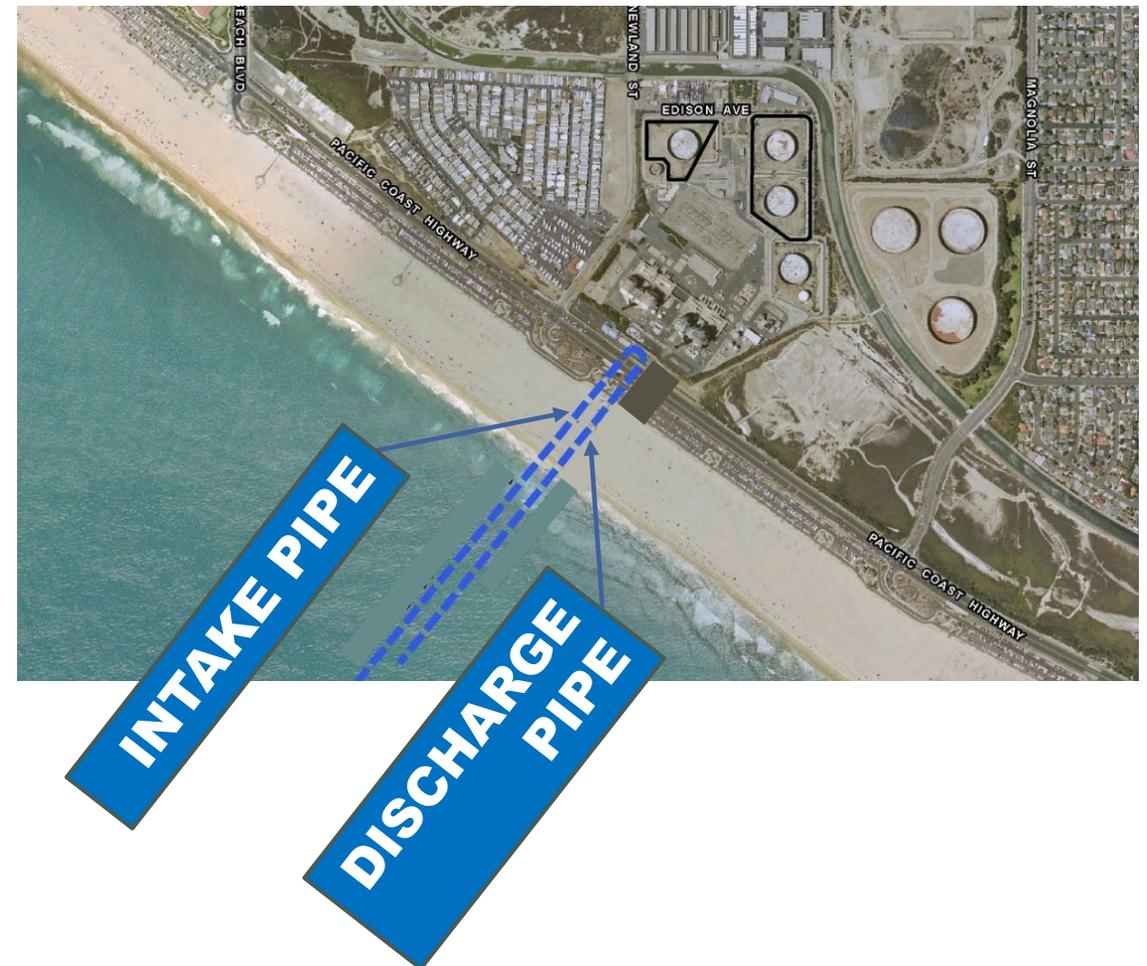
Intake System:

- 106.7 million gallons per day (MGD) of seawater
- Equipped with 1 mm wedgewire screens
- Located 1650 feet offshore

Discharge System:

- 56.7 MGD of brine wastewater
- Equipped with linear, multiport diffuser
- Located 1500 feet offshore

Construction and Operation of the Facility will require mitigation activities





REVIEW OF THE DECEMBER 6, 2019 WORKSHOP

- **WORKSHOP OVERVIEW**
- **FOLLOW-UP ITEMS**

DECEMBER 2019 WORKSHOP OVERVIEW

The December workshop was designed to cover the proposed permit requirements and Water Code 13142.5(b) determination for the desalination facility

Key areas covered:

- Facility onshore location
- Intake considerations including subsurface and surface intake systems
- Concentrated brine discharge considerations
- Calculation of the marine life impacts, and
- Determination of the best feasible mitigation project available



FOLLOW-UP ITEMS FROM DECEMBER 2019 WORKSHOP

Main Questions raised by the Regional Board at the December Workshop were:

- Identified Need for the desalinated water
- Environmental data and the proposed Marine Life Mitigation Plan
- Cost comparison of the intake system alternatives
- Compliance of Carlsbad Seawater Desalination Plant





IDENTIFIED NEED FOR THE PROPOSED FACILITY

- IDENTIFIED NEED IN THE CALIFORNIA OCEAN PLAN
- NEED FOR THE WATER FROM THE PROPOSED PROJECT
- MUNICIPAL WATER DISTRICT OF ORANGE COUNTY'S PRESENTATION
- ORANGE COUNTY WATER DISTRICT'S PRESENTATION

IDENTIFIED NEED IN THE CALIFORNIA OCEAN PLAN

Section in the Ocean Plan Amendment applicable to identified need:

*Chapter III.M.2.b.(2) Consider whether the **identified need** for desalinated water is consistent with an applicable **adopted 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.*

NEED FOR THE WATER FROM THE PROPOSED PROJECT

The need must be consistent with an applicable planning documents:

- Urban Water Management Plan (UWMP):
 - Municipal Water District of Orange County UWMP (2015)
- Other Planning Documents:
 - Orange County Water District's Groundwater Management Plan 2015 Update
 - Orange County Water District's Term Sheet Water Reliability Agreement with Poseidon Resources LLC

The need for 50 MGD appears to be consistent with the applicable UWMP and other documents

- Attachment G.2 of the Tentative Order provides analysis



IDENTIFIED NEED: WATER CODE 13142.5(b) DETERMINATION

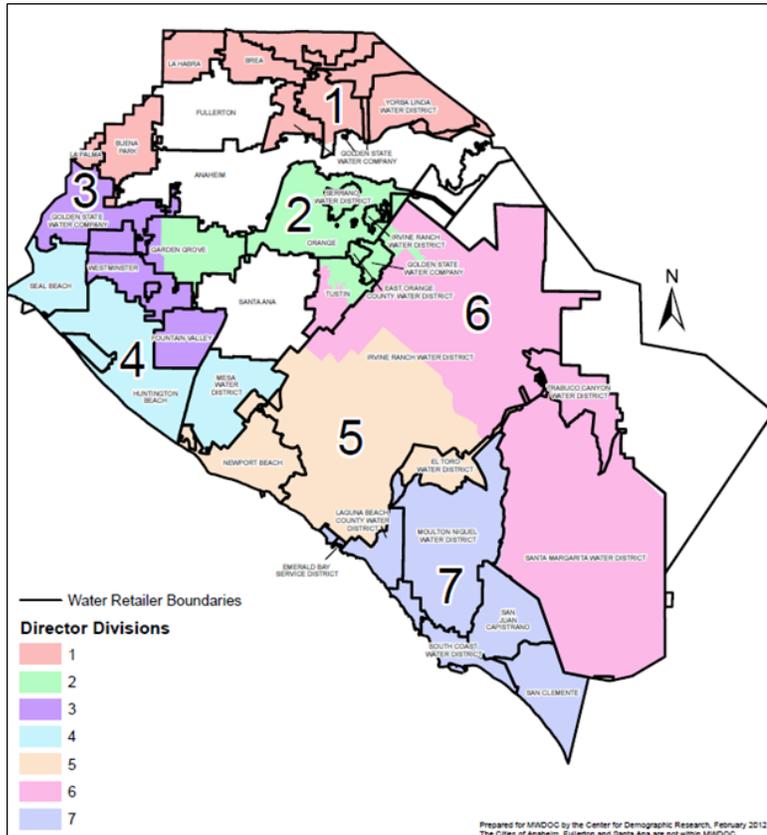
Identified Need:

- The proposed Huntington Beach Desalination Project's identified need for 50 MGD (or 56,000 acre-feet per year) is consistent with the applicable urban water management plans and other water planning documents

Draft Water Code 13142.5(b) determination:

- Staff recommends the Board find that the proposed project satisfies the identified need requirements in the Ocean Plan

BREAK FOR MWDOC AND OCWD PRESENTATIONS



MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

ORANGE COUNTY WATER DISTRICT

