

An aerial satellite image of a coastal region. A blue line is drawn across the image, starting from the ocean, crossing the shoreline, and extending inland through agricultural fields. The line has a small orange segment near the shore. The ocean is a deep blue, and the land is a mix of green fields and brownish-grey areas.

# Salinity Management Pipeline

WCVC Climate Resilience Workshop  
April 28, 2016

Data CSUMB SFML, CA OPC  
Image Landsat

Google earth

# The SMP solves two water supply problems

- Increases water reliability  
by allowing brackish groundwater to be put to use
- Reduces salinity in the aquifers  
by removing salt from the watershed





# What is being (or will be) discharged to SMP?

- Brine from treatment of
  - Groundwater
  - Tertiary treated wastewater (potable reuse)
- Excess tertiary treated wastewater too saline to be discharged to creeks



Image Landsat

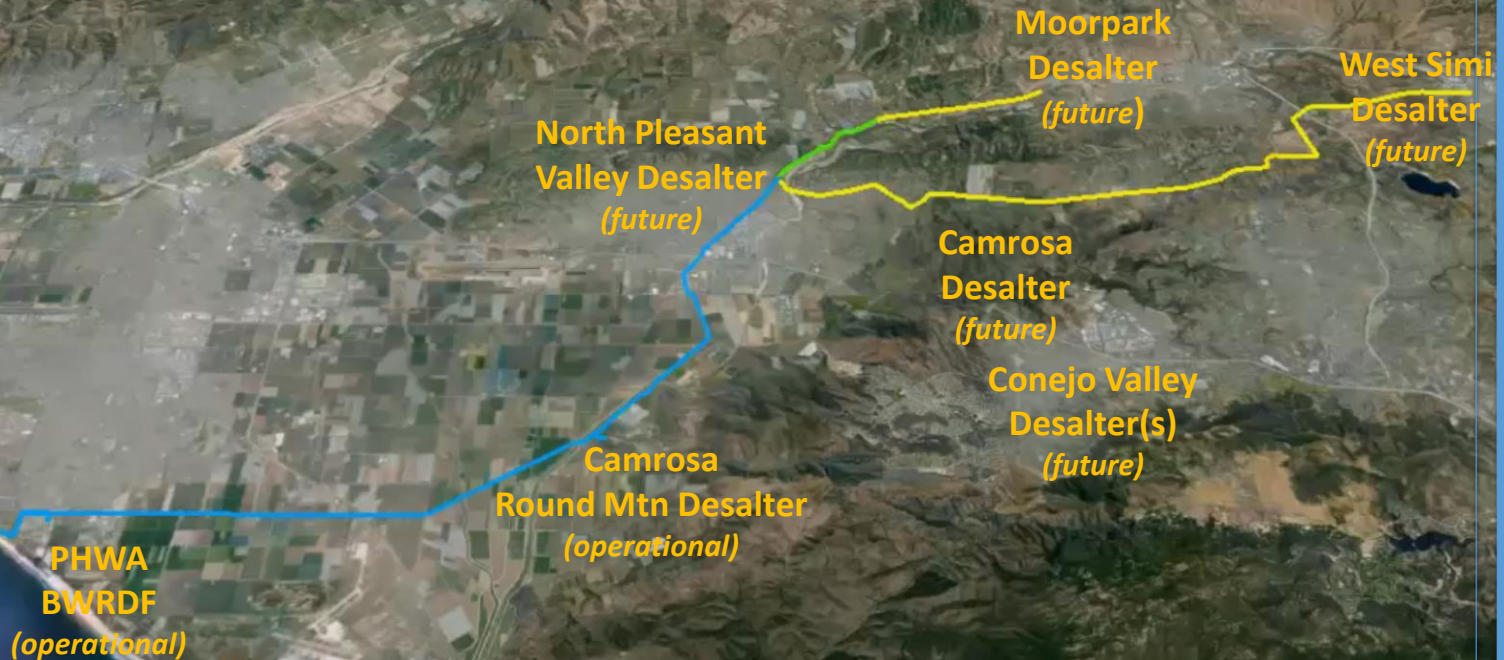
Data CSUMB SFML, CA OPC  
Data USGS

Google earth



# Who wants to build a desalter?

- Municipal Agencies
  - Treated brackish groundwater is cheaper than imported water
  - Potable reuse is relatively drought proof
  - Diverse supplies improve reliability





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# Who wants to build a desalter?

- Agriculture
  - Treated brackish groundwater and wastewater are more expensive than current sources, but...
    - Aquifers are getting more saline
    - Groundwater supplies are limited

Las Posas Ag Desalter(s) (future)

Santa Rosa Ag Desalter(s) (future)





## Climate Resilience and the SMP

- Provides local water supply reliability for an unpredictable water future
- Enables the use of local water supplies that are less GHG intensive than SWP water

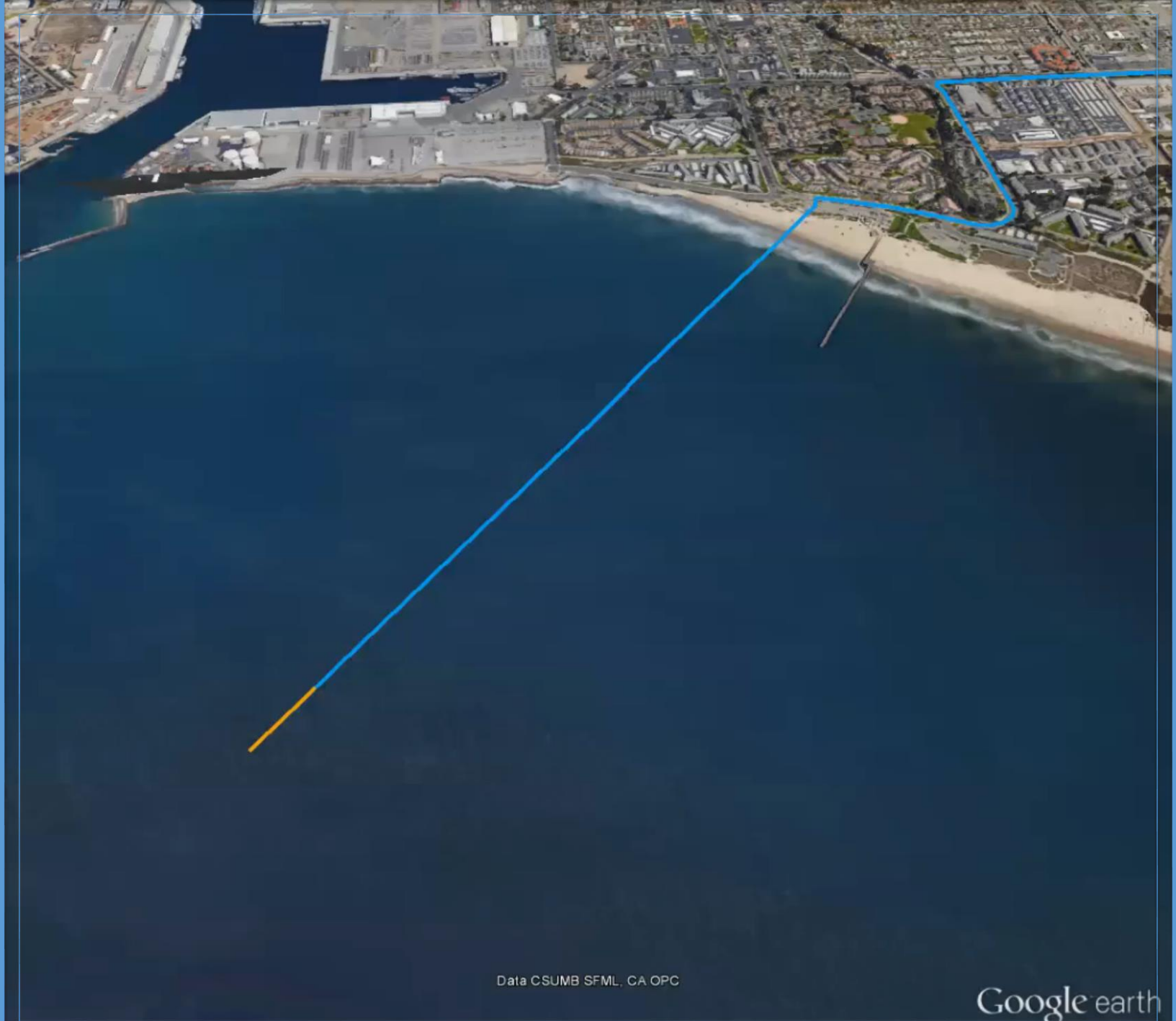






## Calleguas Ocean Outfall Inspection September 2015





Data CSUMB SFML, CA OPC

Google earth

City of Oxnard  
Advanced Water  
Purification Facility

PHWA  
Brackish Water  
Reclamation  
Demonstration Facility





Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Data LDEO, Columbia, NSF, NOAA

Google earth



AWPF  
Connection to  
SMP







AWPF Water  
Delivery  
Connection







AWPF Water  
Delivery  
Connections (2)







An aerial photograph of a multi-lane highway running diagonally from the top left to the bottom right. The highway is flanked by green agricultural fields. A blue line is drawn along the right shoulder of the highway, indicating a water delivery connection. A yellow callout box with a pointer identifies this line.

AWPF Water  
Delivery  
Connection



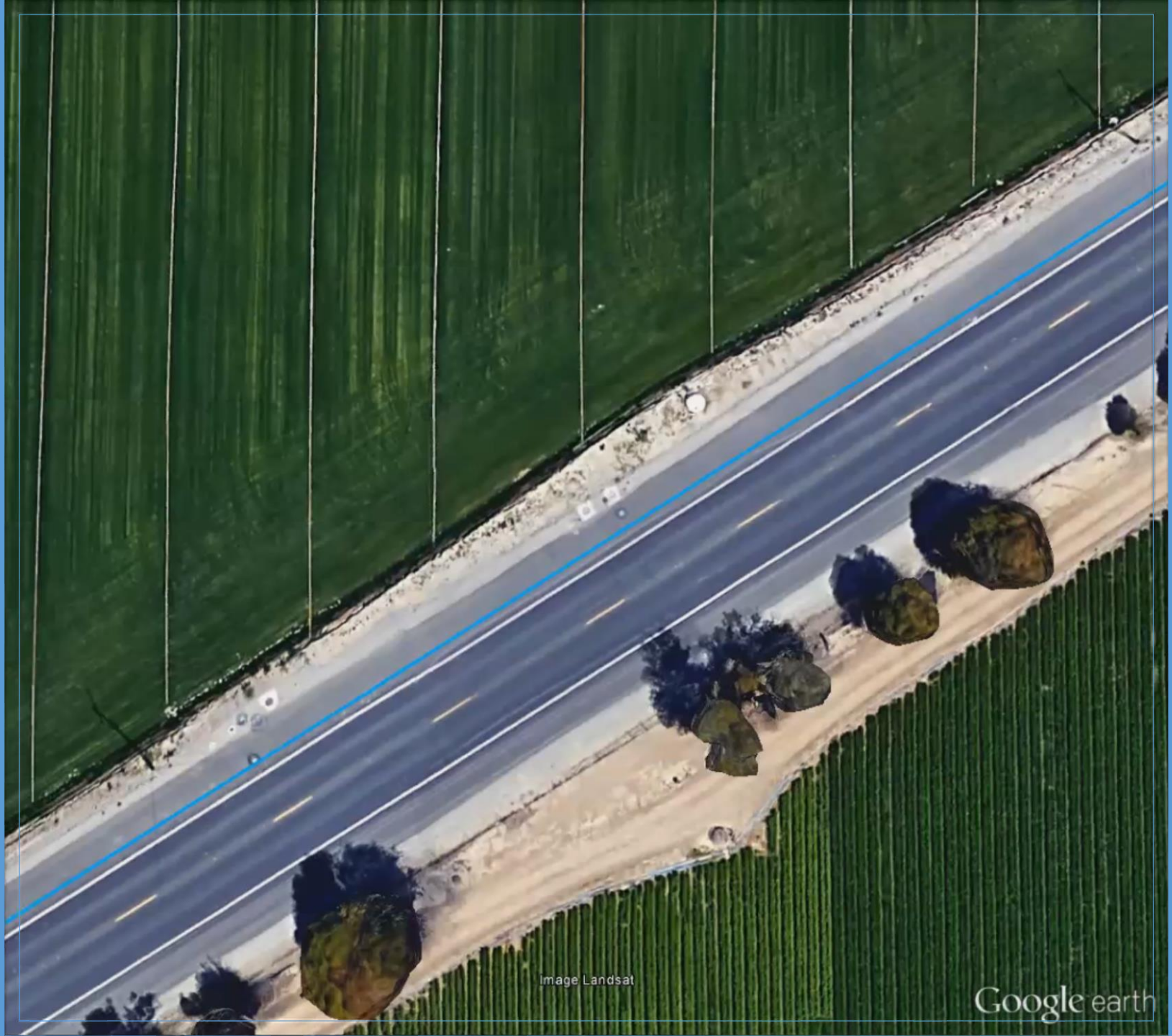


Image Landsat

Google earth



Camrosa Water  
District  
Water Reclamation  
Facility

Image Landsat

Google earth





Image Landsat

Google earth



Camrosa Water  
District  
Round Mountain  
Desalter







Image Landsat

Google earth





SMP Control  
Tank



Google earth





Image: Landsat  
Data: SIO, NOAA, U.S. Navy, NGA, GEBCO  
Data: LDEO, Columbia, NSF, NOAA

Google earth



City of Camarillo  
Wastewater  
Treatment Plant

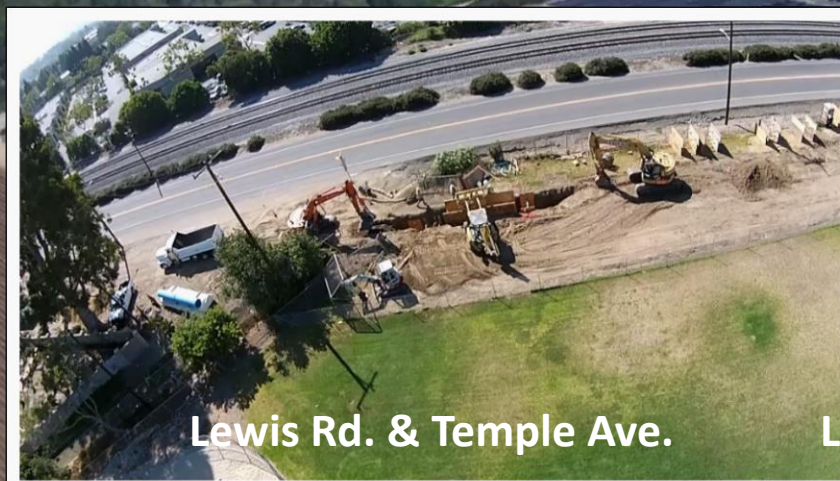
Image Landsat  
Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
Data LDEO-Columbia, NSF, NOAA

Google earth





Camarillo



Lewis Rd. & Temple Ave.



Lewis Rd. & Pleasant Valley Rd.









Hitch Blvd.

Los Angeles Ave.

Google earth









Simi Valley

Tierra Rejada Valley

Santa Rosa Valley



An aerial photograph of a desert landscape. A yellow line, representing a pipeline, starts in the upper center and curves downwards and to the left. The landscape is arid with brownish soil, some sparse vegetation, and a few buildings or structures scattered across the terrain. A city or town is visible in the upper right corner.

**CALLECUAS**

**MUNICIPAL WATER  
DISTRICT**

**Salinity Management Pipeline**

Google earth