



SANITATION DISTRICTS OF LOS ANGELES COUNTY

Update

CLEARWATER
PROJECT

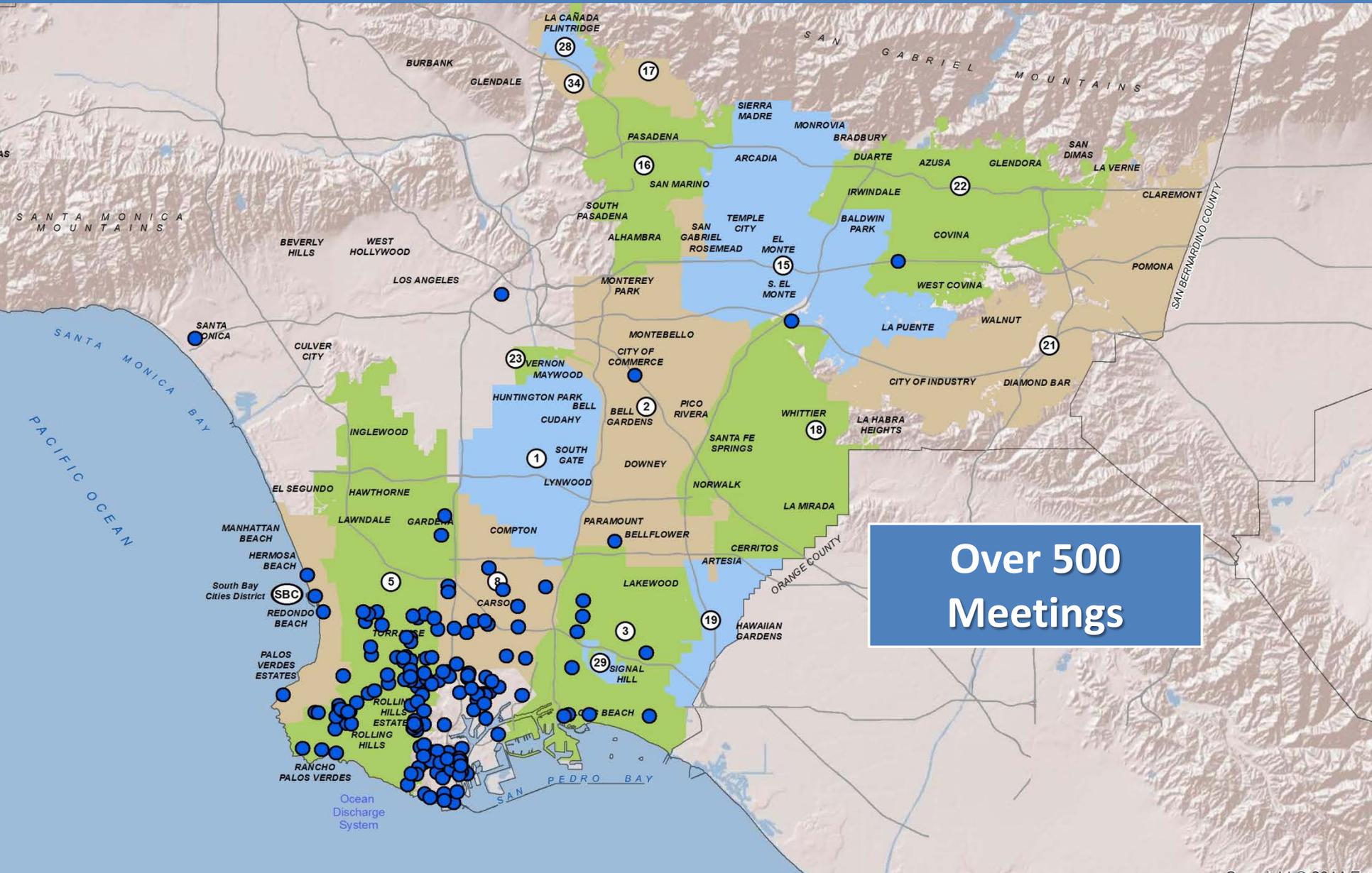
PUBLIC WORKSHOP

San Pedro Doubletree Hotel

September 19, 2017

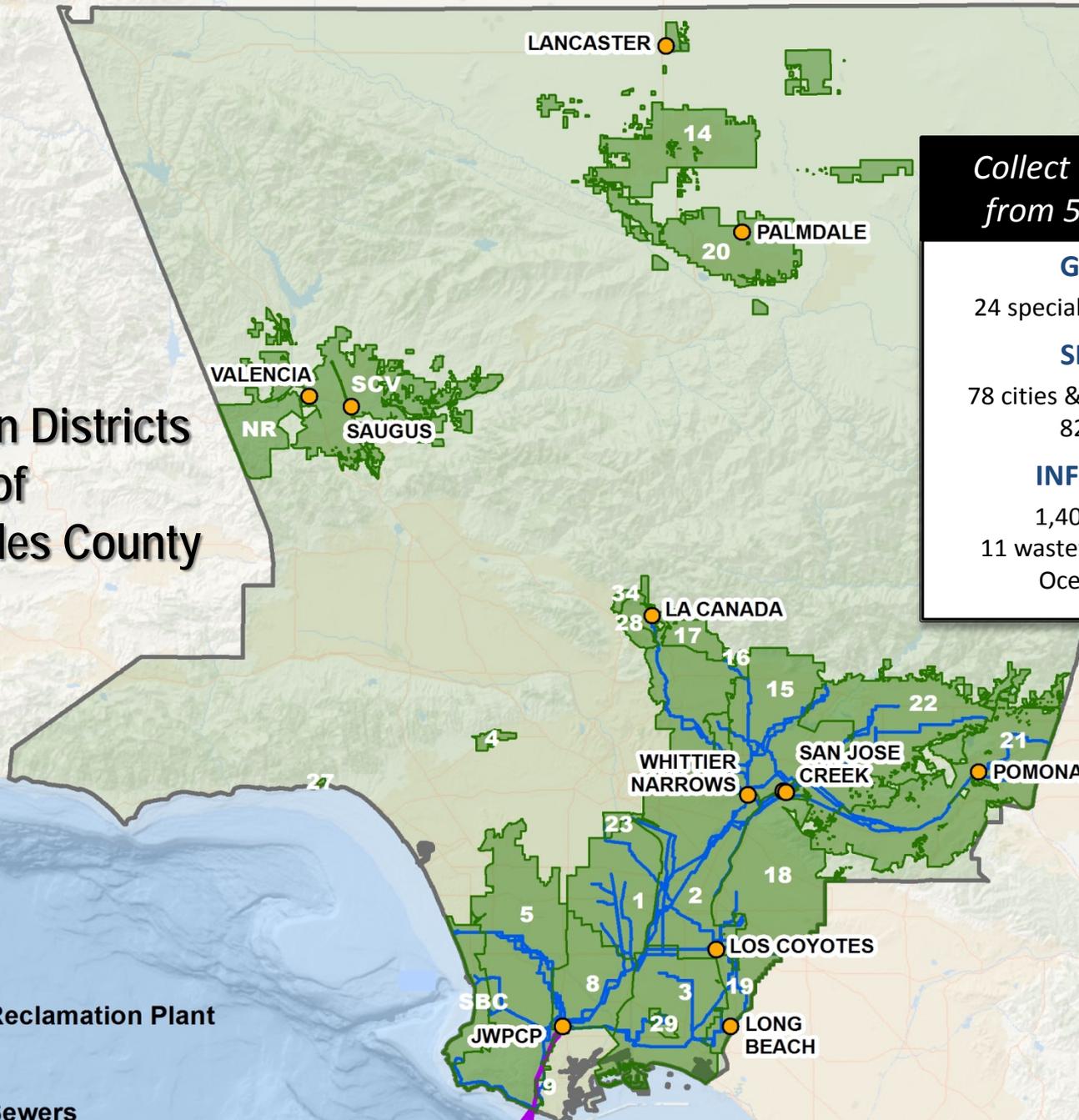


Previous Clearwater Outreach



Sanitation Districts of Los Angeles County

- Water Reclamation Plant
- Outfall
- Trunk Sewers



*Collect and treat sewage
from 5.6 million people*

GOVERNANCE

24 special districts with one staff

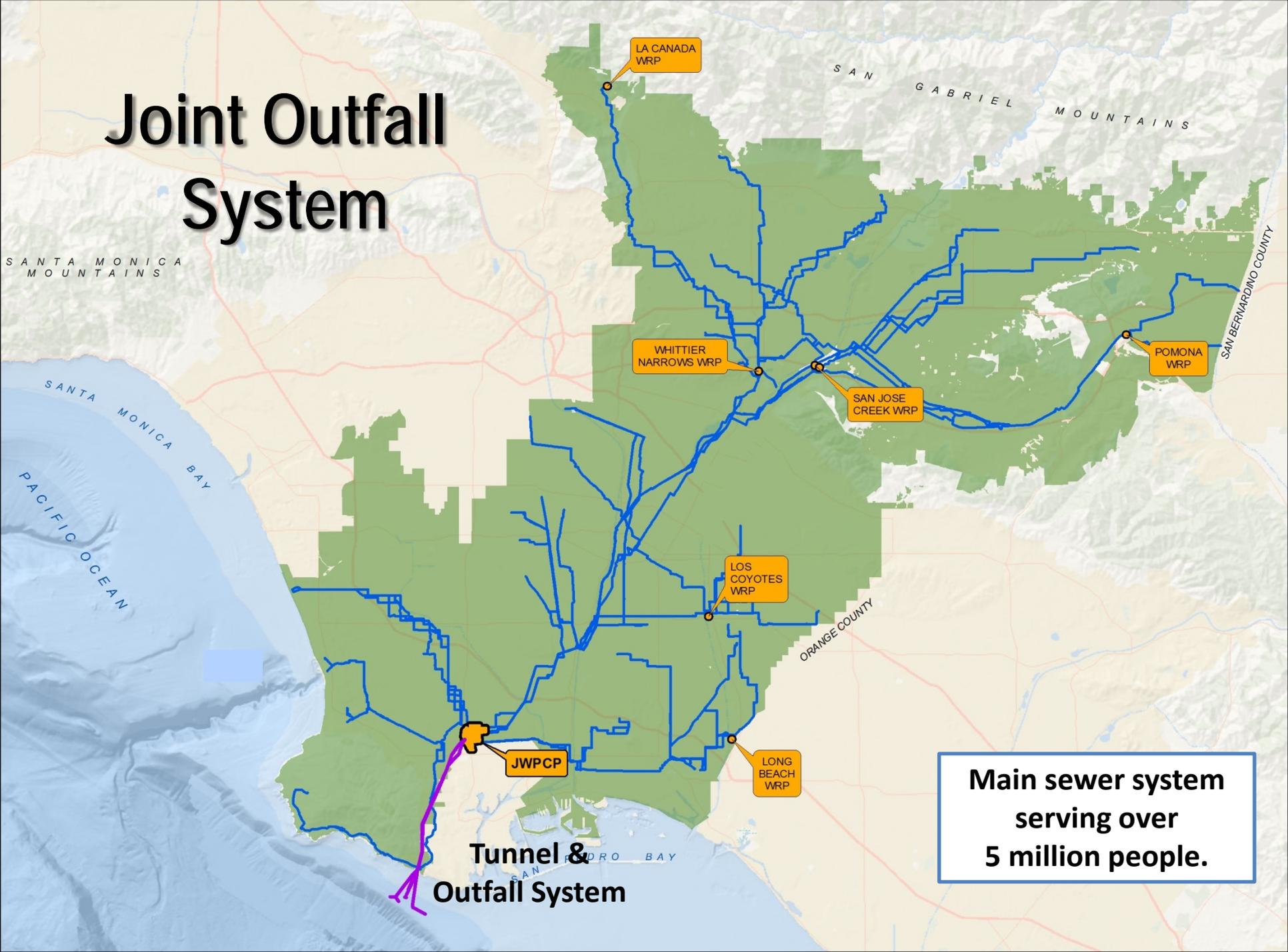
SERVICE AREA

78 cities & unincorporated county
824 square miles

INFRASTRUCTURE

1,400 miles of sewers
11 wastewater treatment plants
Ocean outfall system

Joint Outfall System



**Tunnel &
Outfall System**

**Main sewer system
serving over
5 million people.**

Existing Tunnels & Outfalls



8-ft Tunnel



12-ft Tunnel

Consequences of Tunnel Failure



Dominguez Channel

Los Angeles Harbor

Joint Water Pollution Control Plant (Carson)

Treated or Partially Treated Effluent

Machado Lake

EXISTING TUNNELS

Wilmington Drain



Consequences of Tunnel Failure



Dominguez Channel

UNTREATED WASTEWATER

Los Angeles Harbor

Upstream Sewage Diverted To Channel

Joint Water Pollution Control Plant (Carson)

Machado Lake

INTERSTATE CALIFORNIA 110

Wilmington Drain

NEW TUNNEL

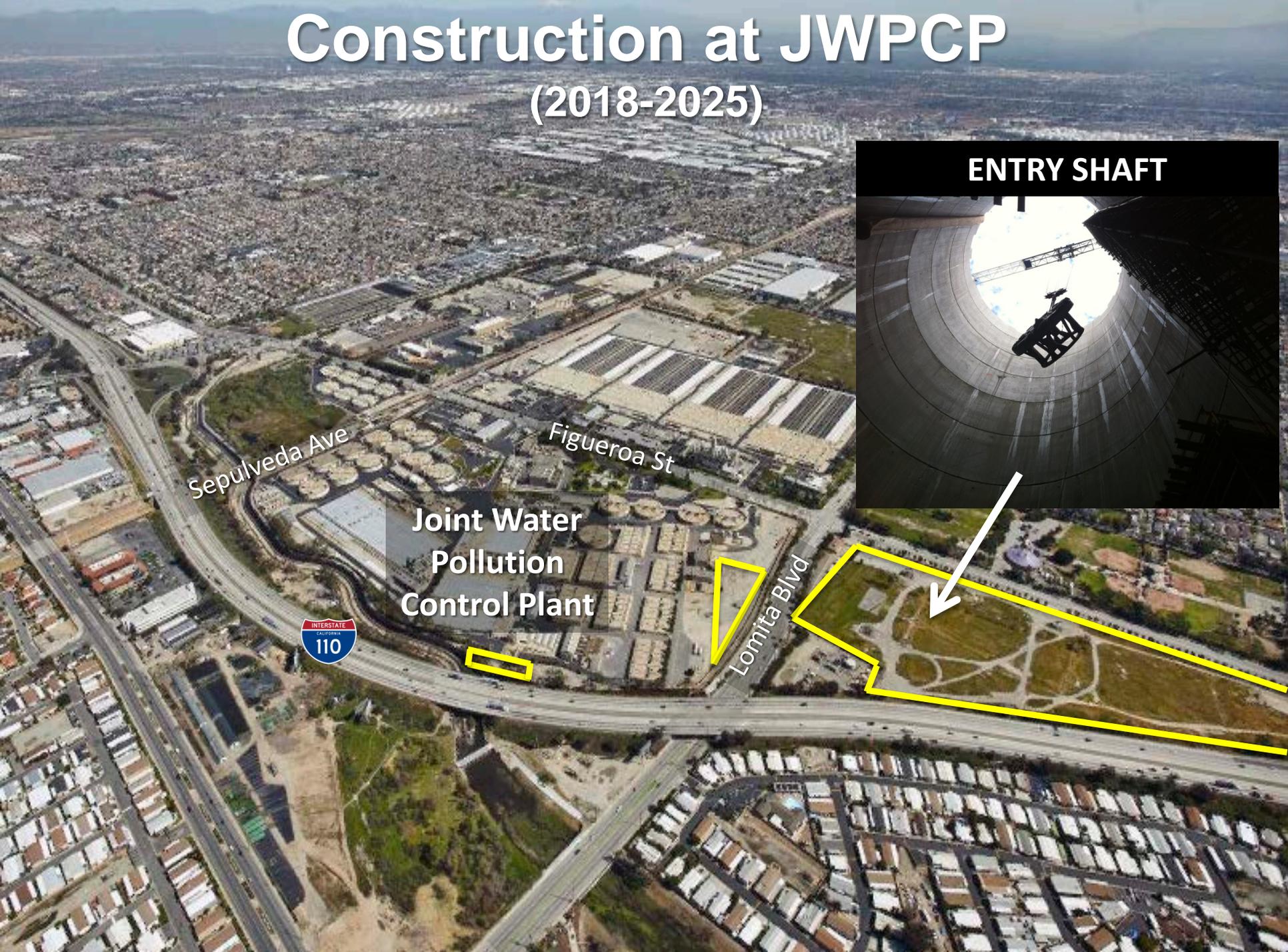
Essential for System Reliability

NEW TUNNEL

- \$700 million
- 18-foot diameter
- 7 miles long
- Depths of 30 to 450 feet below surface to top of tunnel
- Mostly under public roadways
- 7 years to construct (2018-2025)



Construction at JWPCP (2018-2025)



Sepulveda Ave

Figueroa St

Joint Water
Pollution
Control Plant

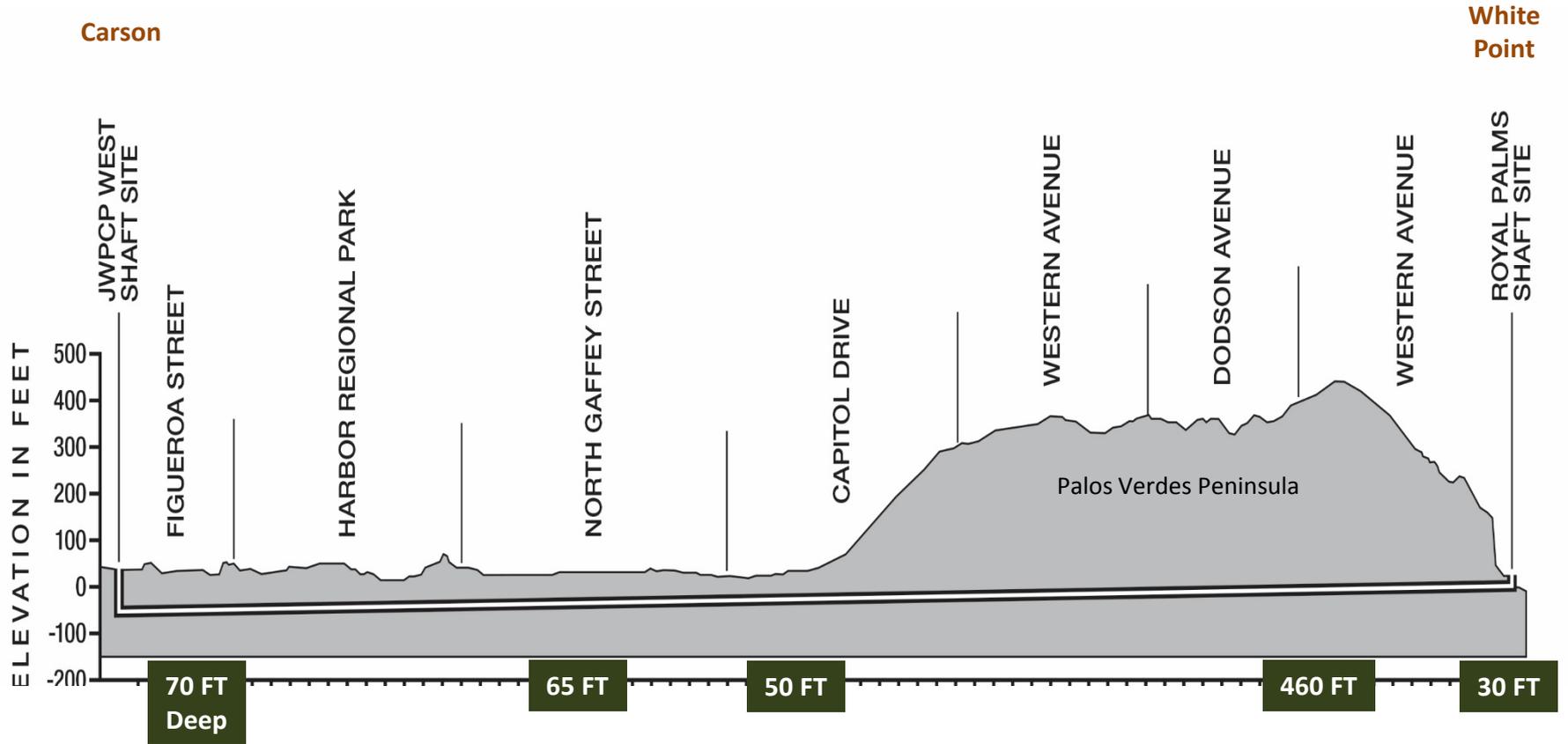


Lomita Blvd

ENTRY SHAFT



Tunnel Depth Profile



Work at Royal Palms Beach

(2023-2025)

VISUAL/SOUND
BARRIER



CRANE

WORK ON NEW TUNNEL
About 2 Years





Sophisticated Controls



Control Room

© AP



Tunneling in Soil

VIBRATION

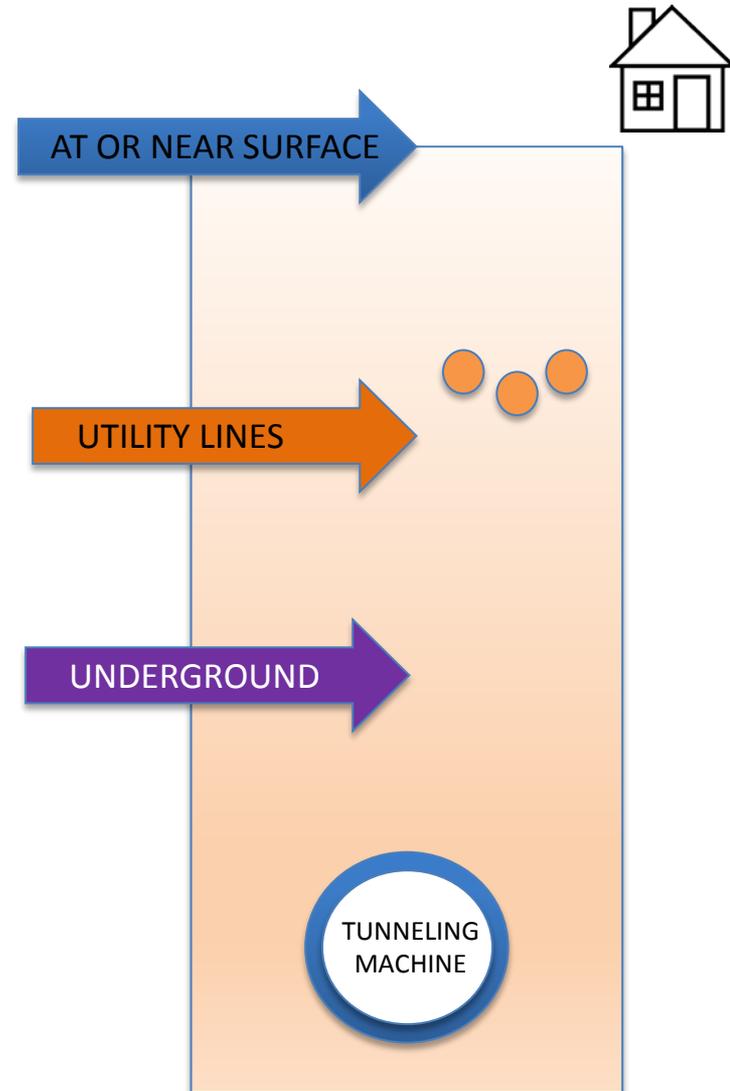


Monitoring Program

TYPE	MONITORS
Ground Monitoring Points	Settlement near surface
Inclinometers	Lateral ground movement
Vibration Monitors	Vibration
Displacement Monitoring Points	Movement

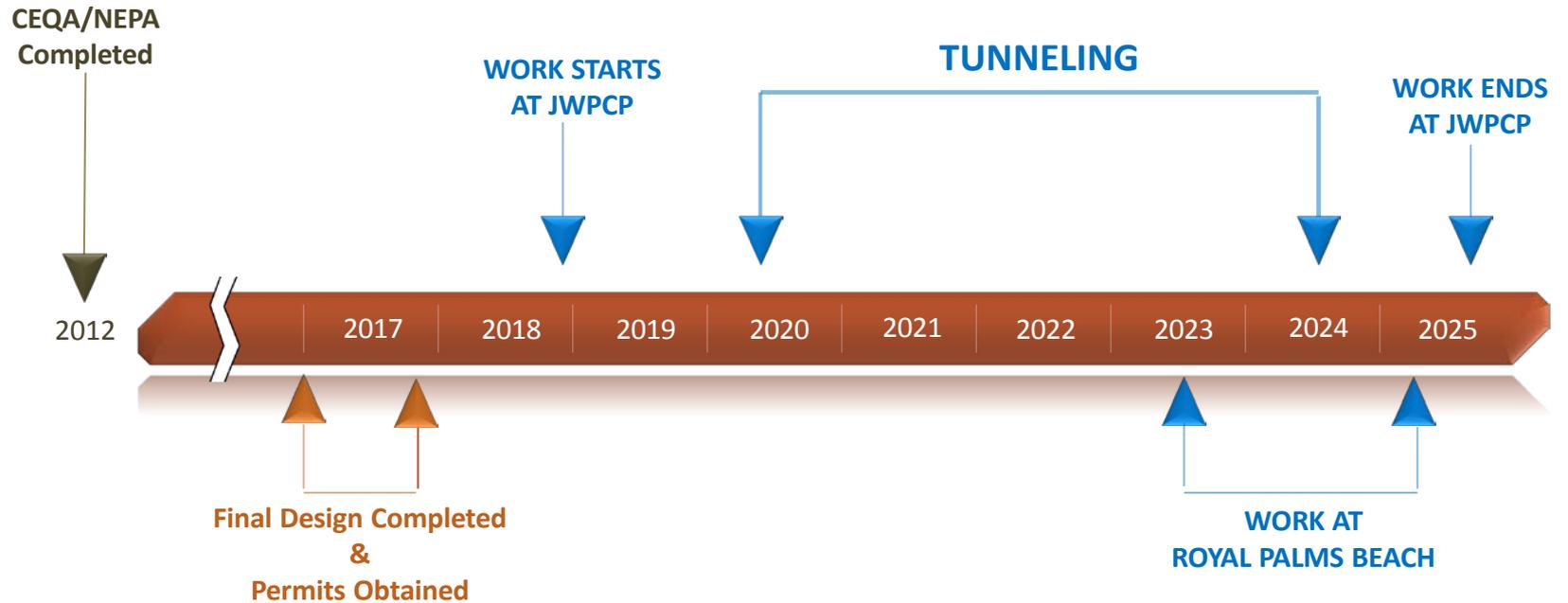
TYPE	MONITORS
Utility Monitoring Points	Any movement of utility lines

TYPE	MONITORS
Multiple Position Extensometers	Settlement at different depths
Vibrating Wire Piezometers	Changes in groundwater levels





Project Timeline





SANITATION DISTRICTS OF LOS ANGELES COUNTY

Q & A

