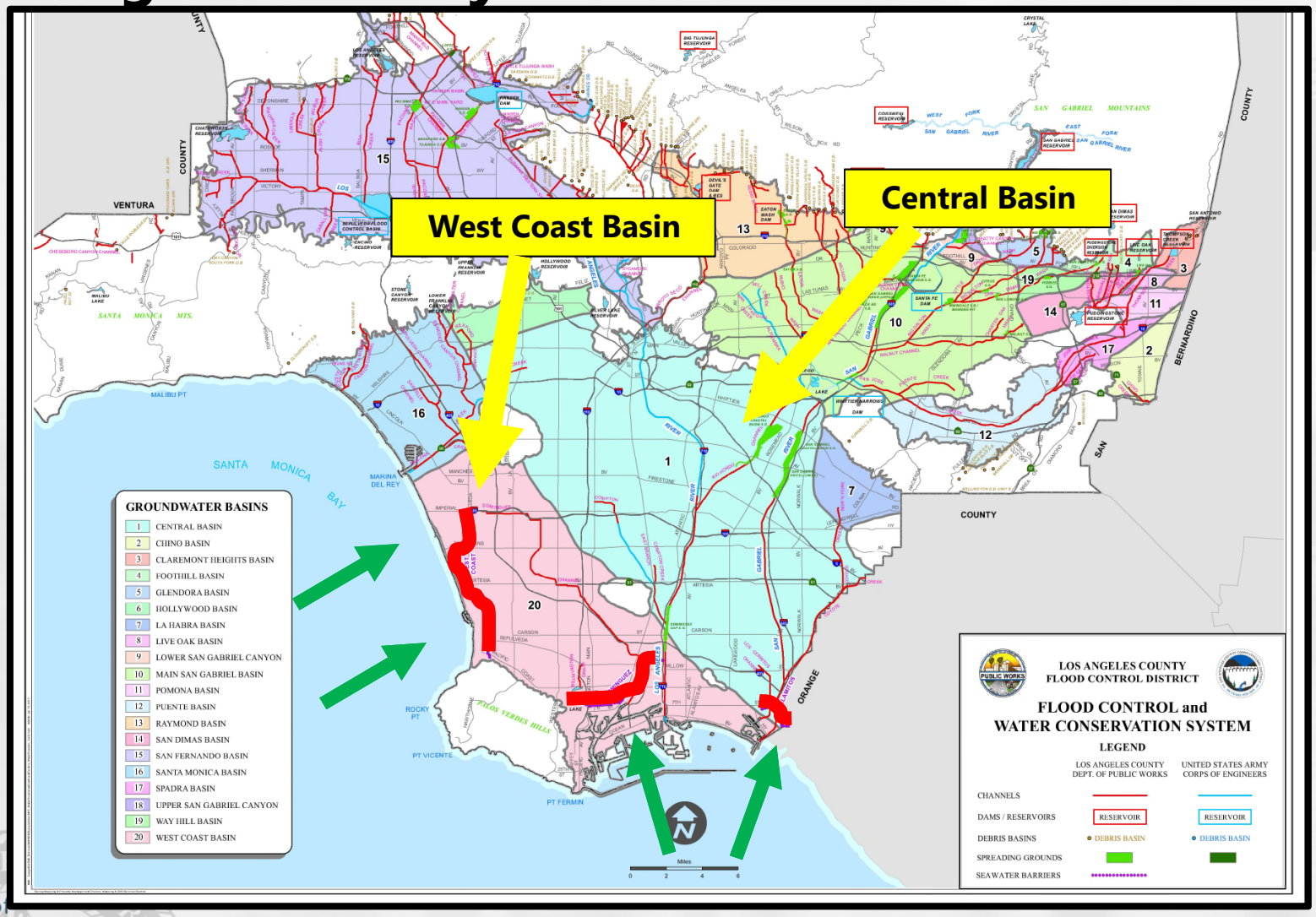
West Coast Basin Barrier Project
9 Replacement Injection Wells
2 New Injection Wells
1 New Observation Well

City of Manhattan Beach CALIFORNIA

Presented by: Adam Lee

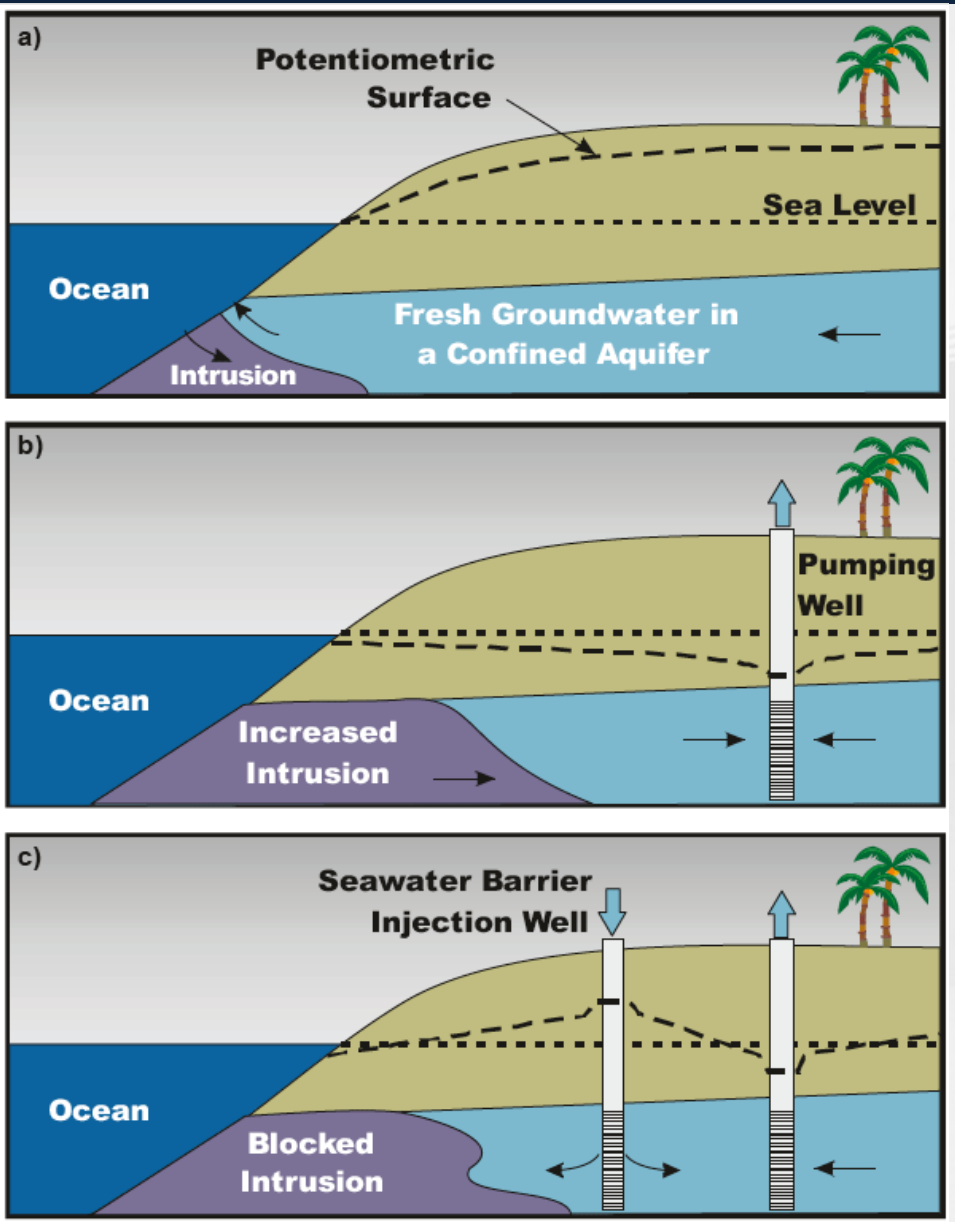
Los Angeles County Groundwater Basins



City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Sustainable Groundwater Supply



Under normal conditions there is enough freshwater pressure to keep seawater at bay

Heavy pumping can increase rate and distance of intrusion

Seawater intrusion barriers can block inflow of salt water and replenish the basins with fresh water

West Coast Basin Barrier Project

City of Manhattan Beach CALIFORNIA

Sustainable Groundwater Supply

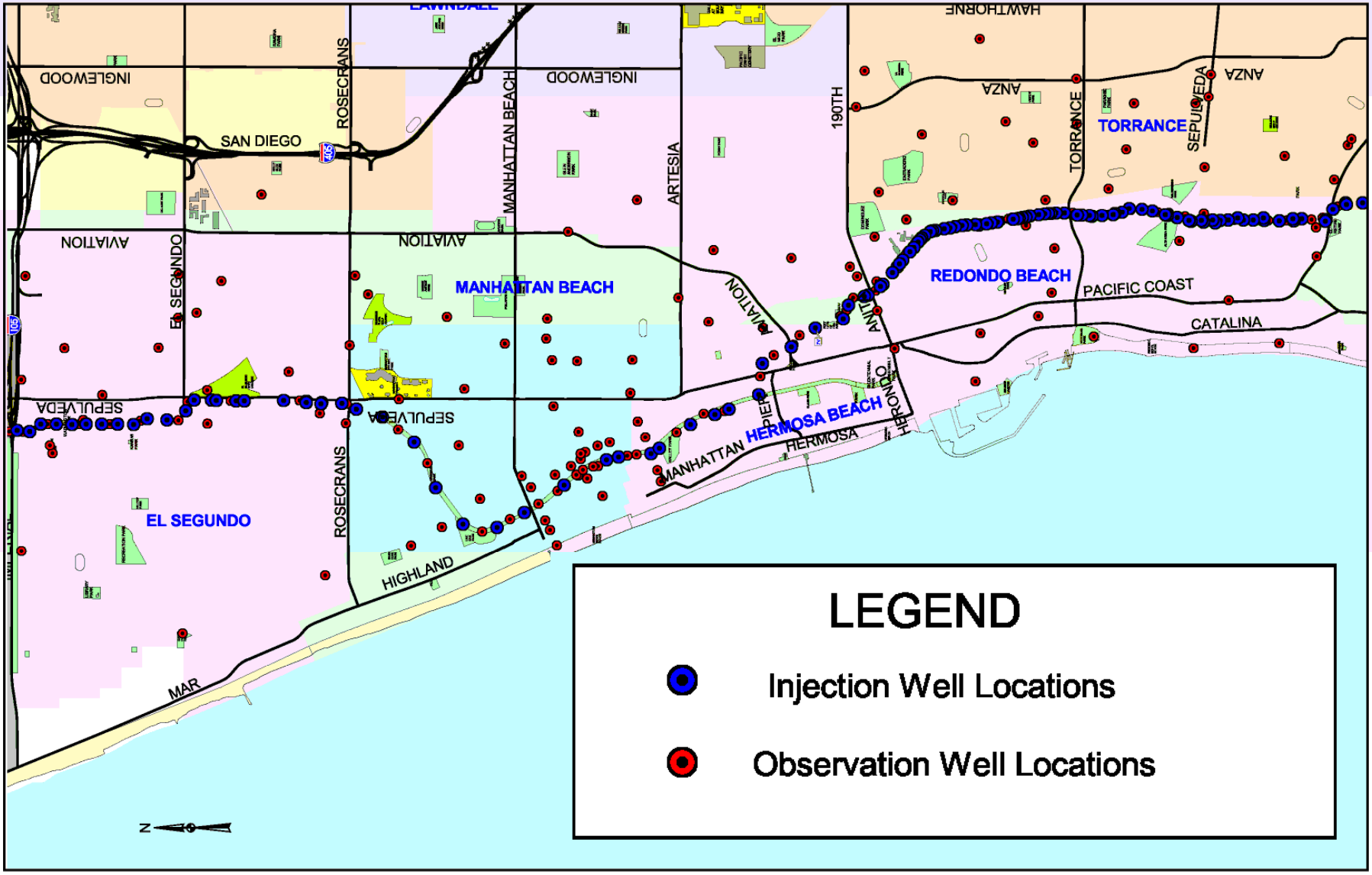
Public Works
LOS ANGELES COUNTY

City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Sustainable Groundwater Supply

Public Works
LOS ANGELES COUNTY



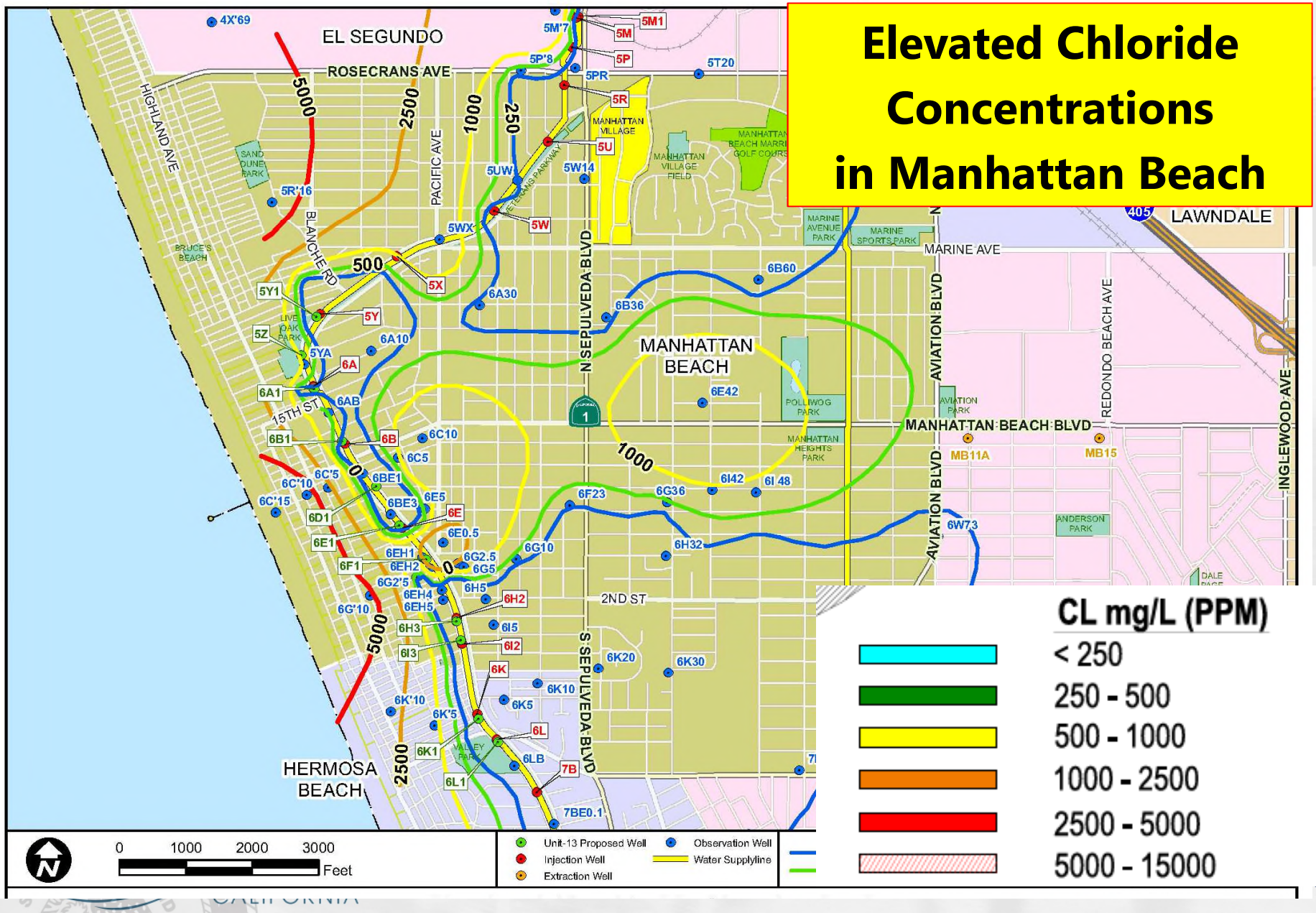
Manhattan Beach
CALIFORNIA

West Coast Basin Barrier Project

Sustainable Groundwater Supply

Public Works
LOS ANGELES COUNTY

Elevated Chloride Concentrations in Manhattan Beach

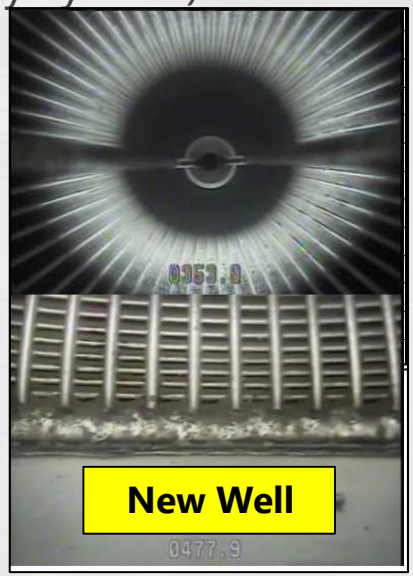


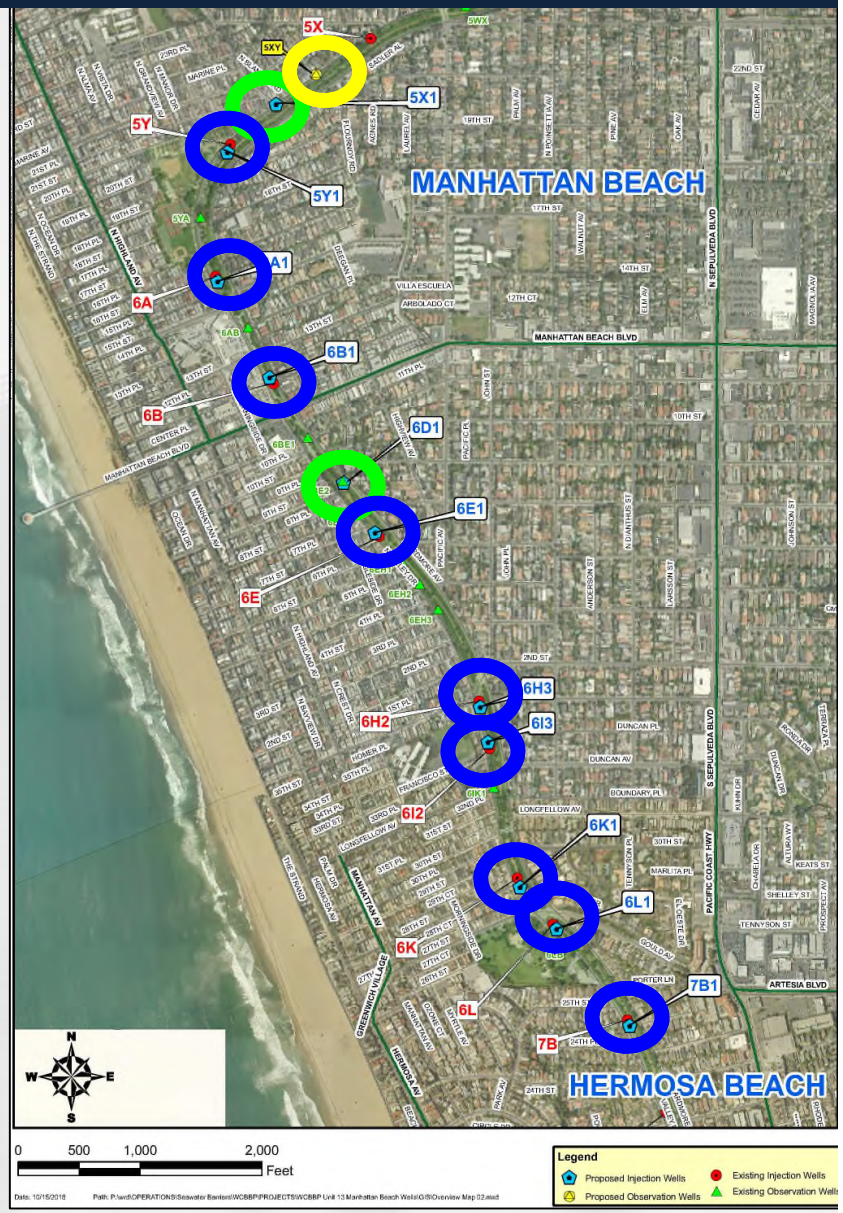
Sustainable Groundwater Supply

Public Works
LOS ANGELES COUNTY

Construct 12 wells total:
(11 injection wells and 1 observation well)

- 9 replacement injection wells.
- 2 new injection wells for increased seawater intrusion protection.
- 1 new observation well for water quality monitoring.
- Install conduits to each well for remote monitoring (telemetry system).





West Coast Basin Barrier Project

Public Works
LOS ANGELES COUNTY

Benefits to the Cities

- **Water Conservation**
- **Increased protection of the City's groundwater resources.**
- New well locations that will blend in with surrounding environment (e.g., wood chip access points and plantable retaining walls).
- Permanent staging areas for future maintenance activities to avoid traffic impacts.
- Improvements to the Greenbelt (landscaping, recreational, etc.).
- Less frequent field work required with telemetry system.

City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Sustainable Groundwater Supply

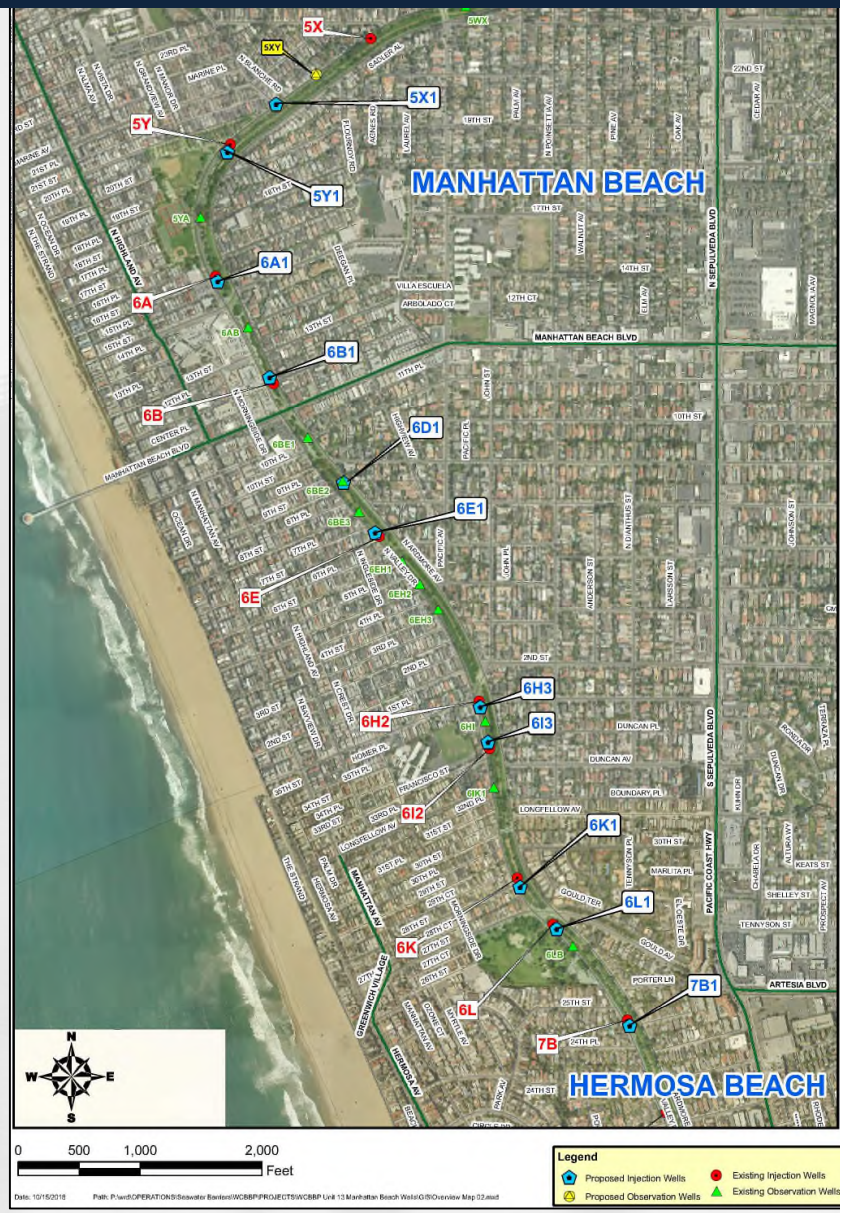
Public Works
LOS ANGELES COUNTY

West Coast Basin Barrier Project (WCBBP)

New Injection & Observation Wells

Prop 1 Groundwater Grant Funding:

- Water Quality, Supply, and Infrastructure Improvement Act of 2014.
- Allocated $900 million for projects that preserve groundwater.
- Project awarded $7M in January 2018.



City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

Construction

Public Works
LOS ANGELES COUNTY

Well 1 (NEW)
Manhattan Beach

Observation Well 5XY
Valley Drive & Flournoy Rd

Manhattan Beach
CALIFORNIA

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 1 (NEW)
Manhattan Beach

Observation Well 5XY
Valley Drive & Flournoy Rd

Manhattan Beach
CALIFORNIA

West Coast Basin Barrier Project

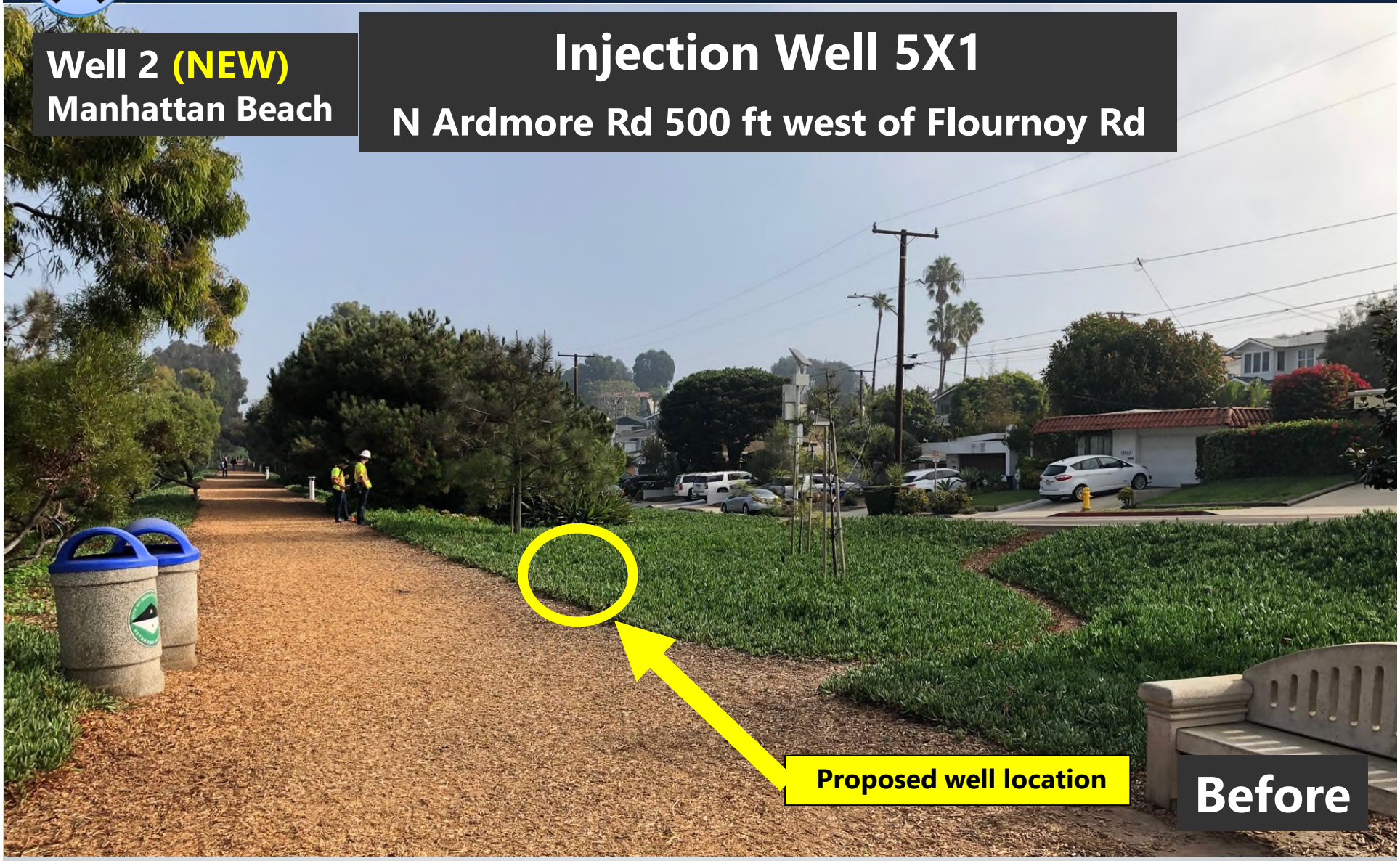
Construction

Public Works
LOS ANGELES COUNTY

Well 2 (NEW)
Manhattan Beach

Injection Well 5X1

N Ardmore Rd 500 ft west of Flournoy Rd



West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 2 (NEW)
Manhattan Beach

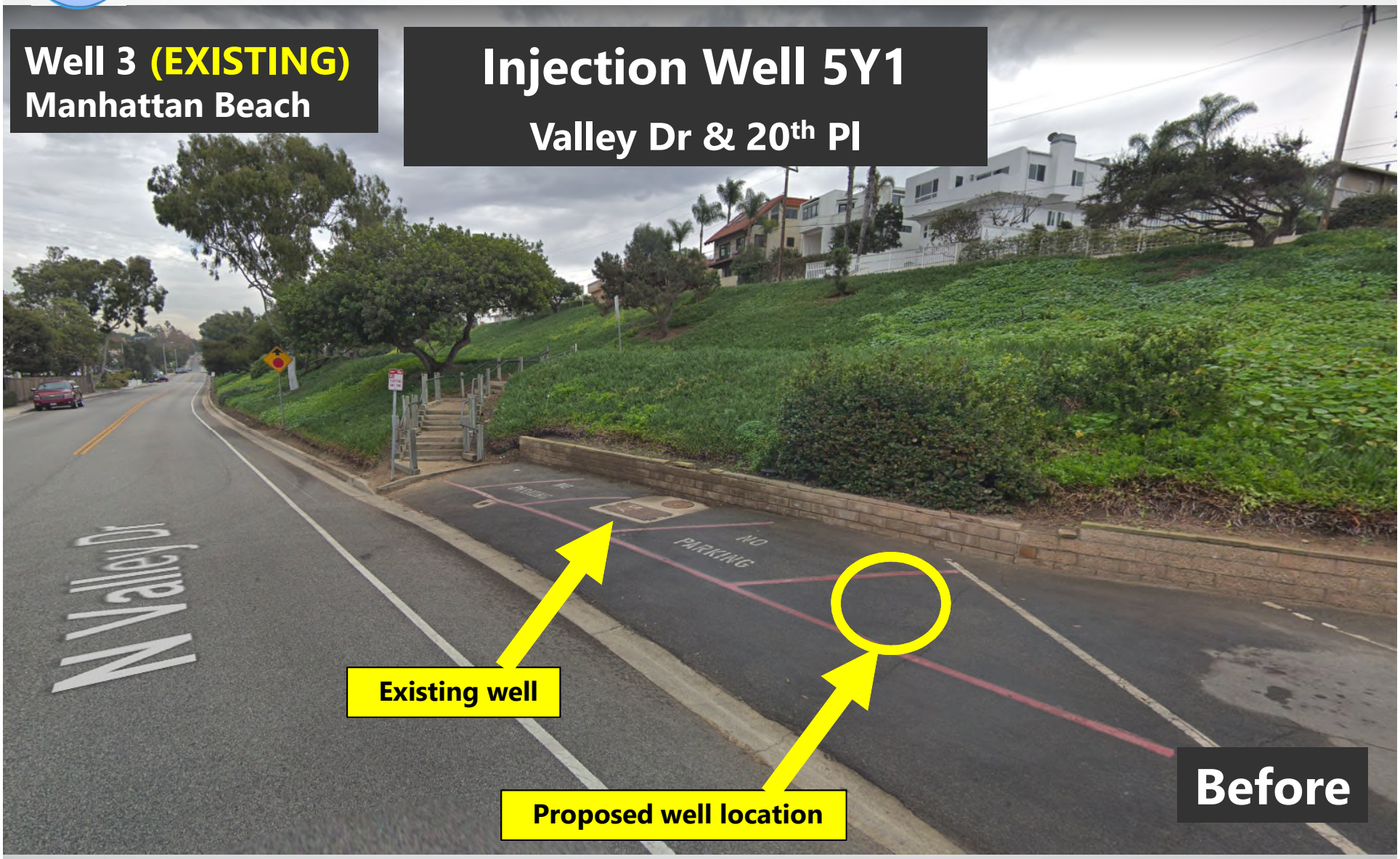
Injection Well 5X1

N Ardmore Rd 500 ft west of Flournoy Rd

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY



West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 3 (EXISTING)
Manhattan Beach

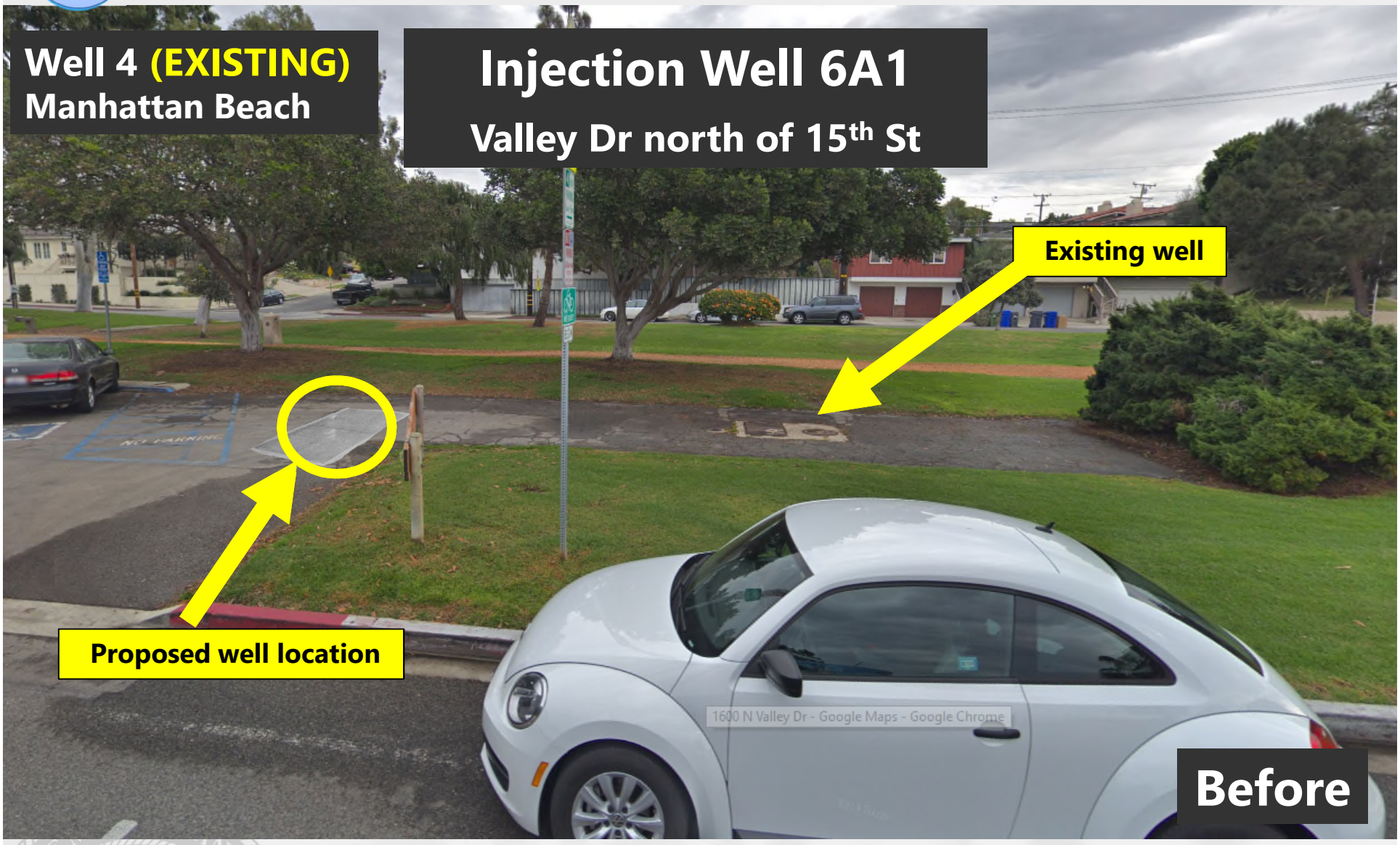
Injection Well 5Y1
Valley Dr & 20th Pl

After

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY



City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

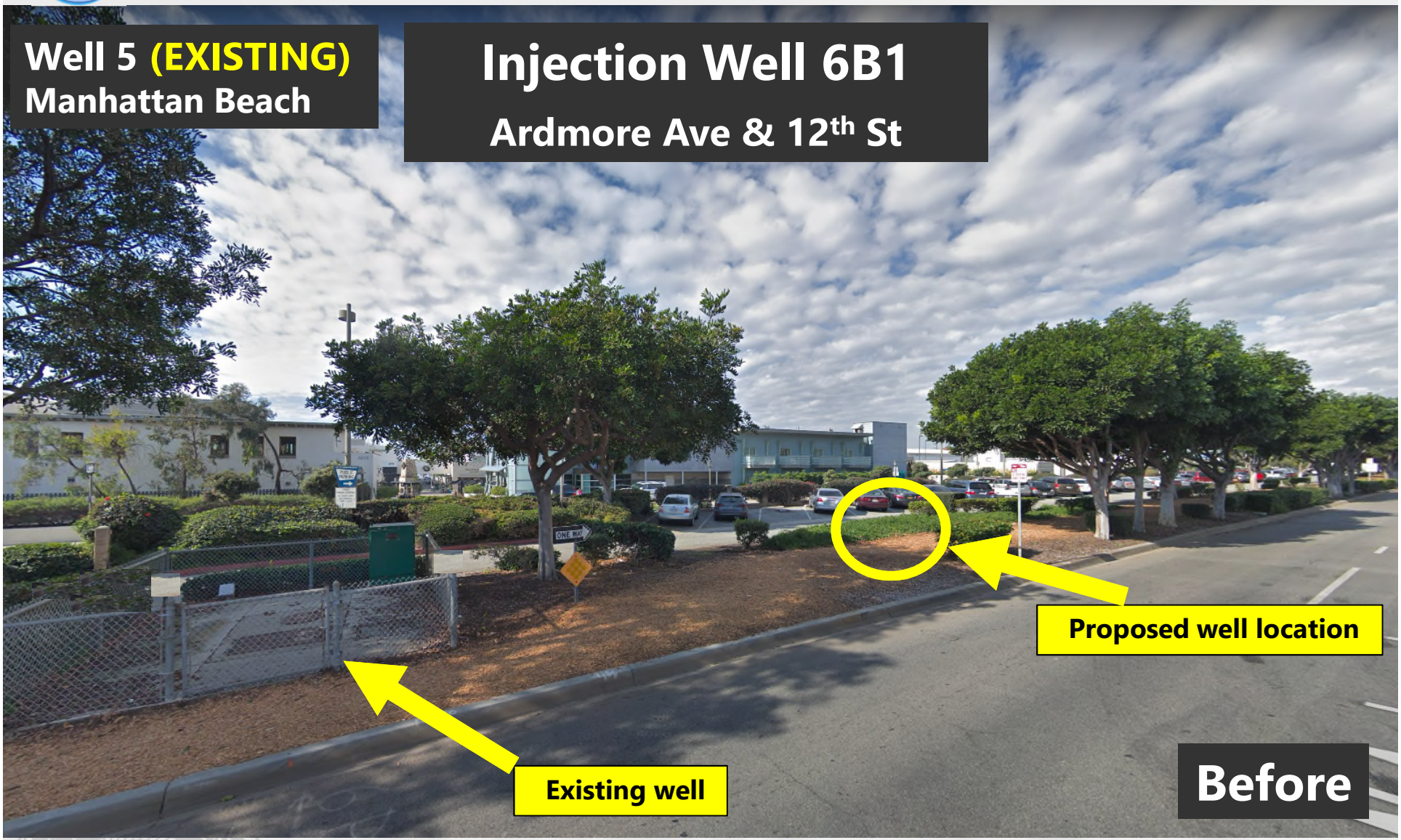
Public Works
LOS ANGELES COUNTY

City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY



City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 5 (EXISTING)
Manhattan Beach

Injection Well 6B1
Ardmore Ave & 12th St

After

City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 6 (NEW)
Manhattan Beach

Injection Well 6D1
Ardmore Ave & 9th St

City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 6 (NEW)
Manhattan Beach

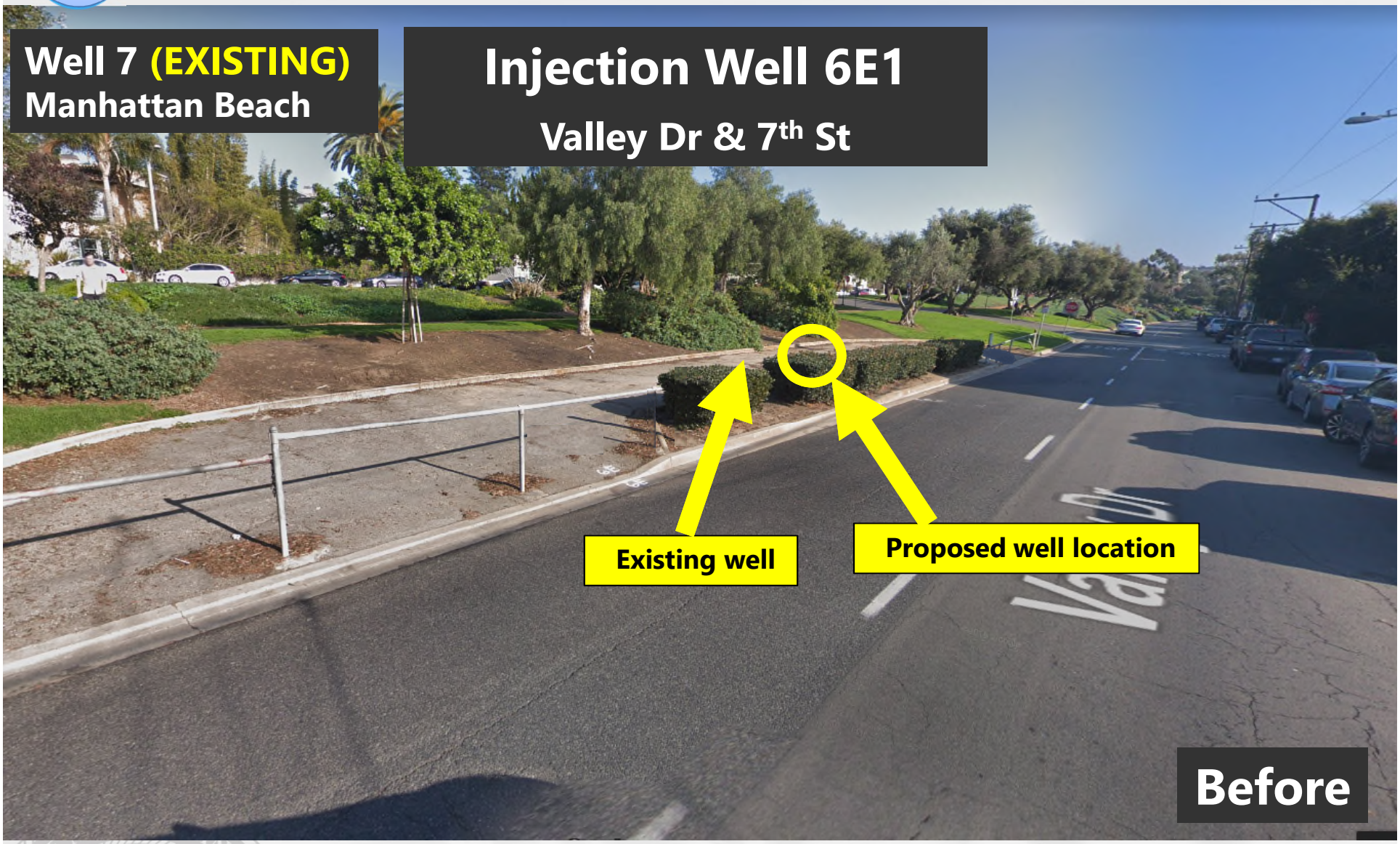
Injection Well 6D1
Ardmore Ave & 9th St

City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY



City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

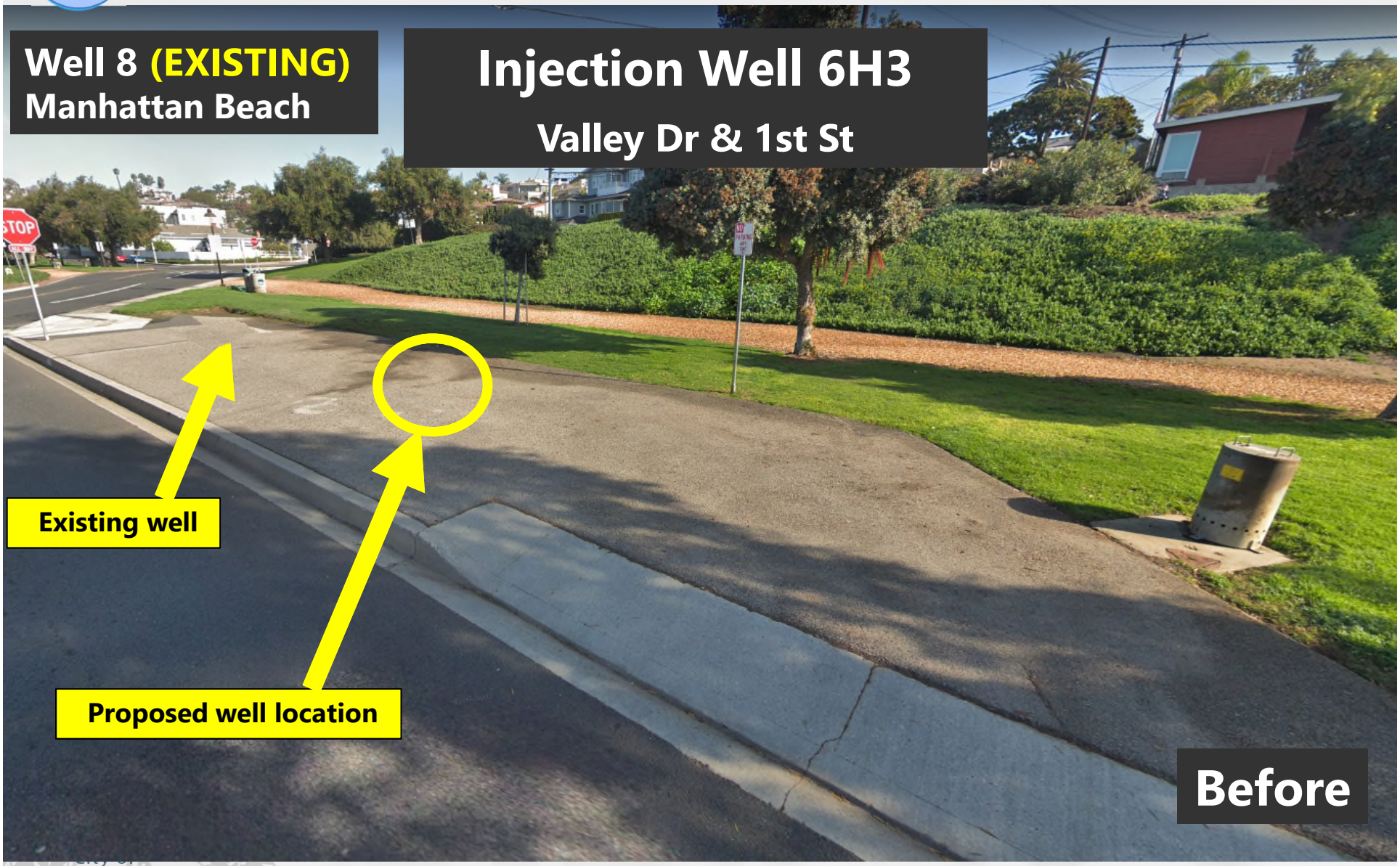
Public Works
LOS ANGELES COUNTY

City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

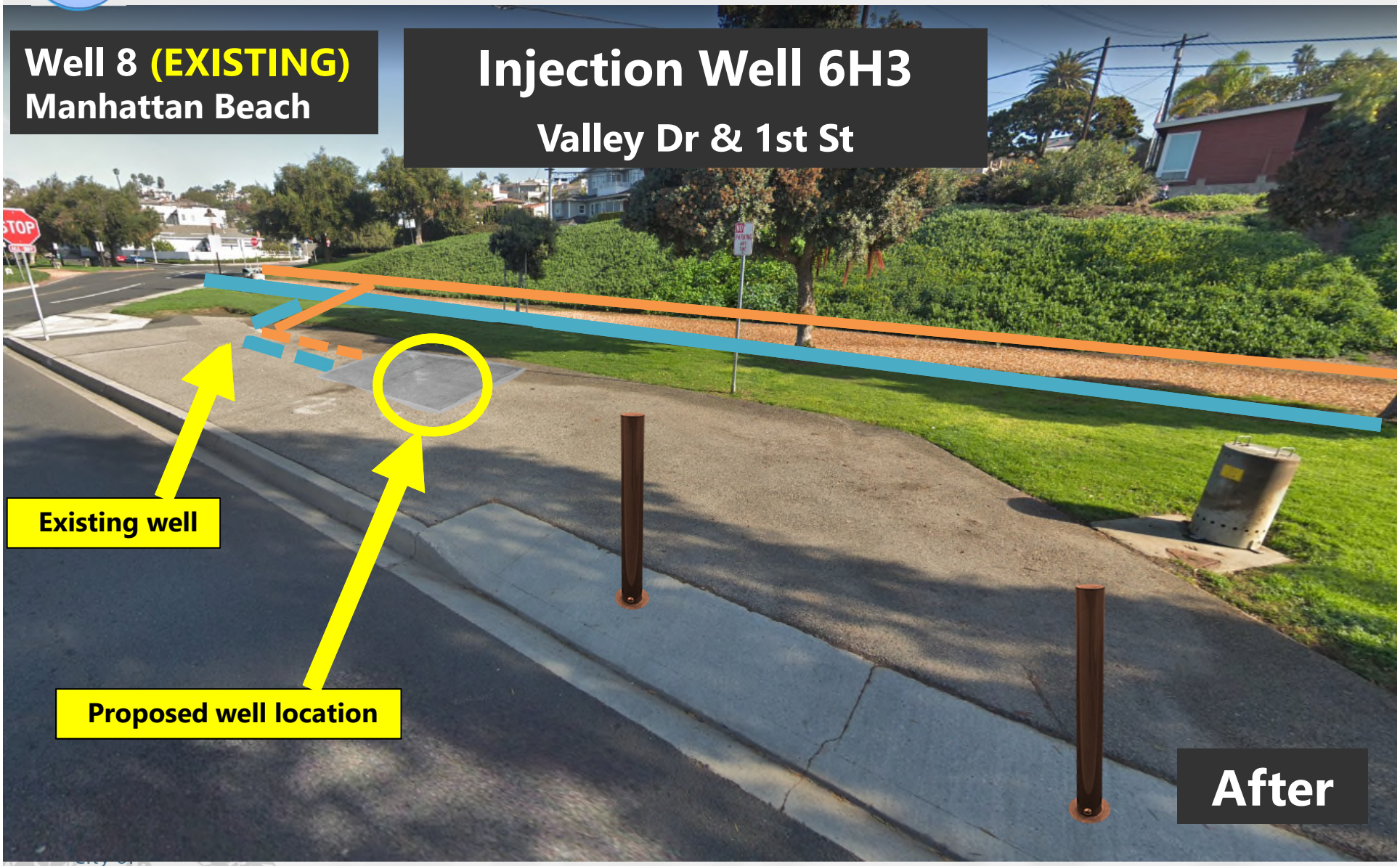


Manhattan Beach
CALIFORNIA

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY



Manhattan Beach
CALIFORNIA

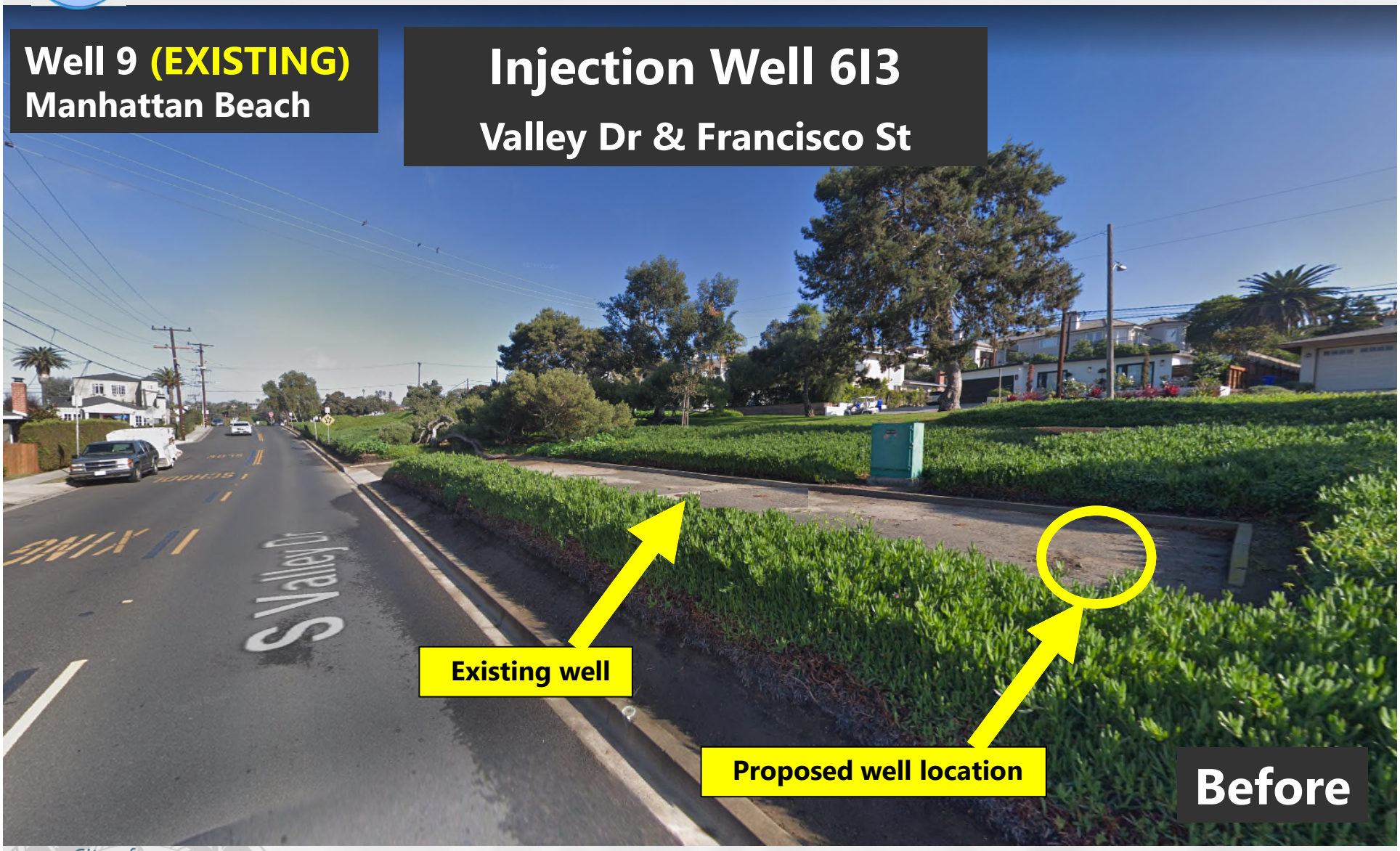
West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 9 (EXISTING)
Manhattan Beach

Injection Well 613
Valley Dr & Francisco St



City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 9 (EXISTING)
Manhattan Beach

Injection Well 613

Valley Dr & Francisco St

After

City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

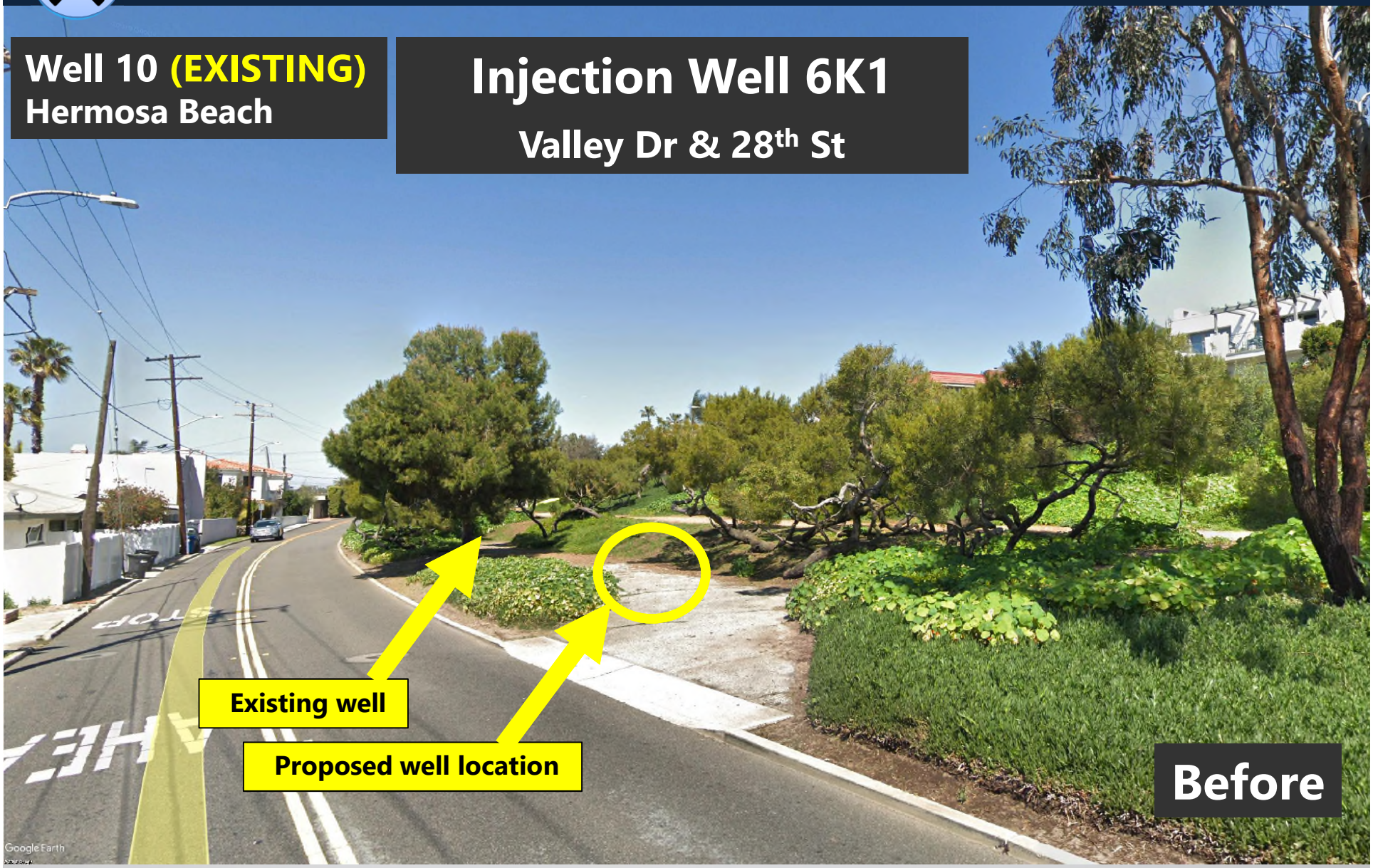
Construction

Public Works
LOS ANGELES COUNTY

Well 10 (EXISTING)
Hermosa Beach

Injection Well 6K1

Valley Dr & 28th St



West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 10 (EXISTING)
Hermosa Beach

Injection Well 6K1

Valley Dr & 28th St

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 11 (EXISTING)
Hermosa Beach

Injection Well 6L1

Valley Dr & Gould Ave

West Coast Basin Barrier Project

Construction

Public Works
LOS ANGELES COUNTY

Well 11 (EXISTING)
Hermosa Beach

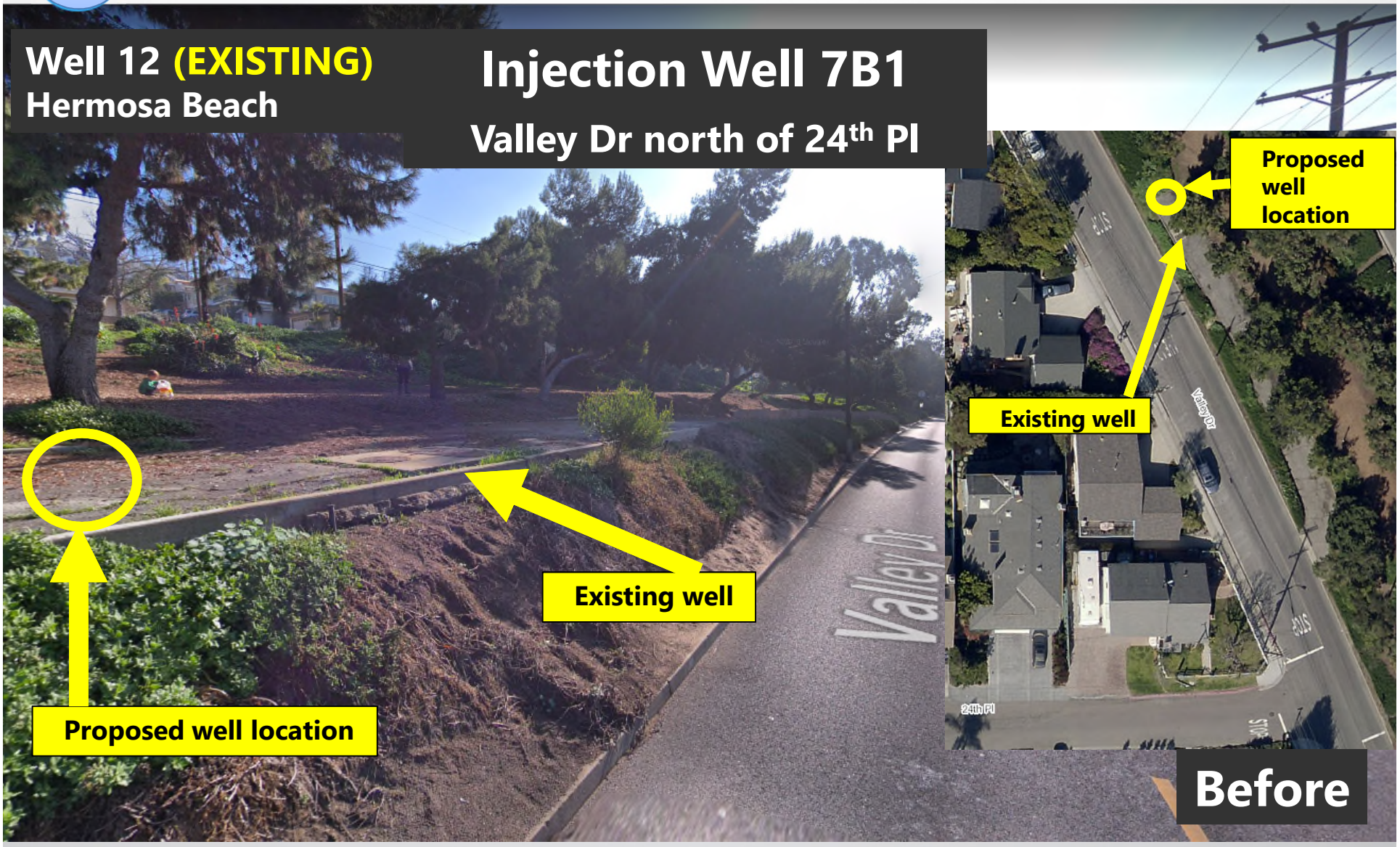
Injection Well 6L1

Valley Dr & Gould Ave

West Coast Basin Barrier Project

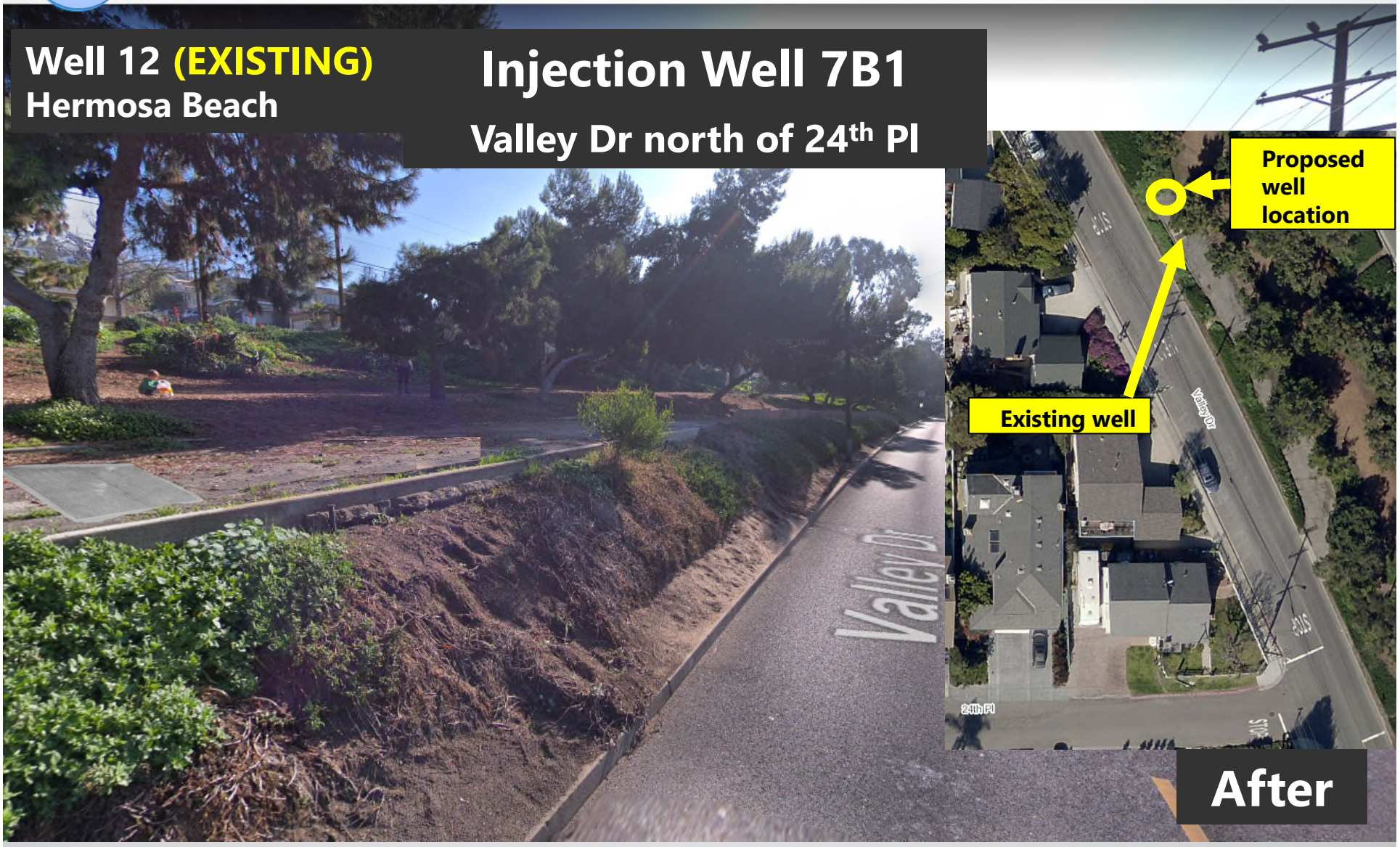
Well 12 (EXISTING)
Hermosa Beach

Injection Well 7B1
Valley Dr north of 24th Pl



Well 12 (EXISTING)
Hermosa Beach

Injection Well 7B1
Valley Dr north of 24th Pl



After

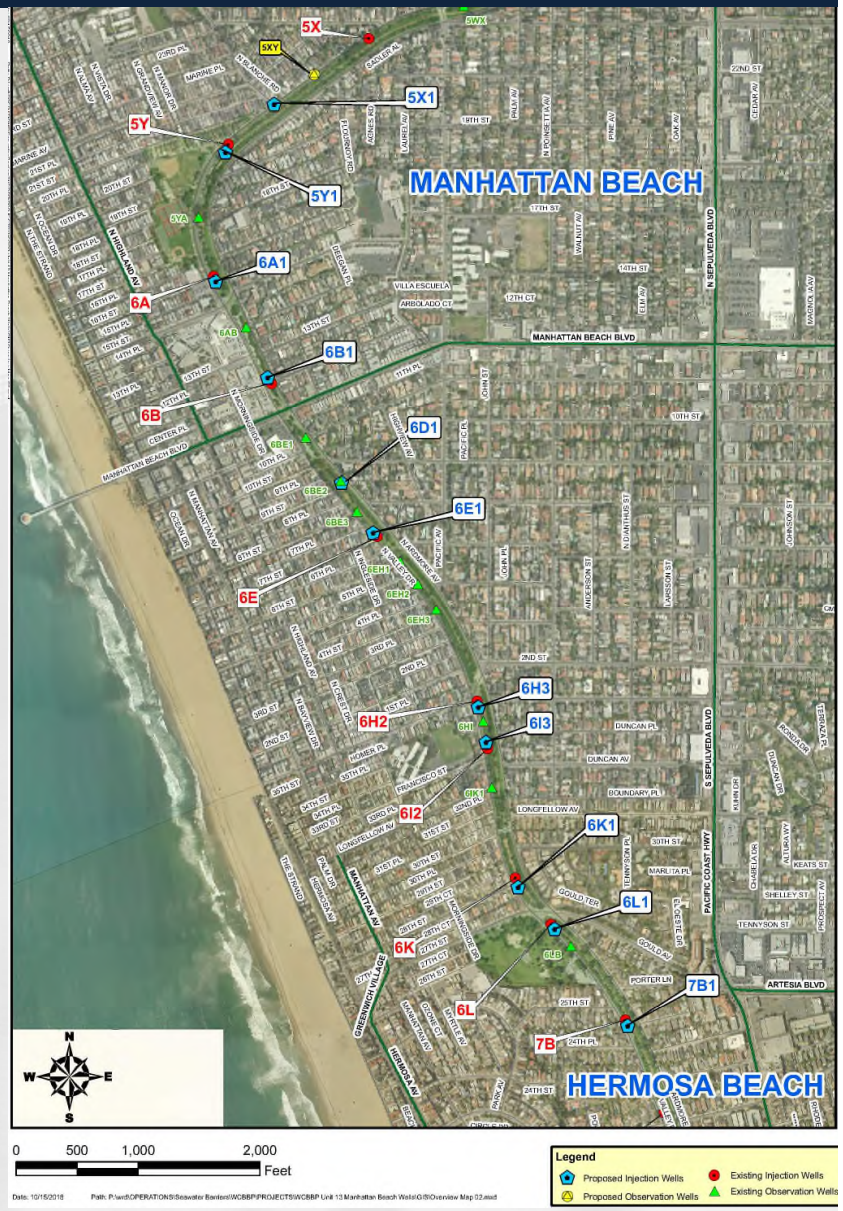
Public Works
LOS ANGELES COUNTY

Construction

Estimated Schedule:

TASK	START	FINISH
Design	Nov 2018	Jan 2020
Award	Feb 2020	Aug 2020
Construction	Oct 2020	Feb 2022

- Construction activities to be scheduled around Special City Events and school breaks
- Traffic flow & Greenbelt jogging path to remain open



City of Manhattan Beach CALIFORNIA

West Coast Basin Barrier Project

Questions?

For More Information:

Subscribe to our e-mail list to receive updates on the project.

www.seawaterbarrier.com

swb@dpw.lacounty.gov

@LACoPublicWorks

City of Manhattan Beach CALIFORNIA

Public Works LOS ANGELES COUNTY

COUNTY OF LOS ANGELES FLOOD CONTROL DISTRICT