

# Lagoon Restoration in San Diego County



**SDMMP Management and Monitoring Coordination Meeting**  
**March 24, 2021**



# **TransNet** Environmental Mitigation Program



Large scale acquisition, management, and monitoring



Reduce cost, accelerate delivery, implement habitat plans, and reduce listing of species

# I-5 North Coast Corridor (NCC) - Program Scope

- \$6 Billion/40 -year project
  - Four Express Lanes on I-5
  - Completing LOSSAN Double track
  - Improve Coastal Access
  - Coastal Habitat Improvements
- 27 miles
- Coastal Commission approval August 2014

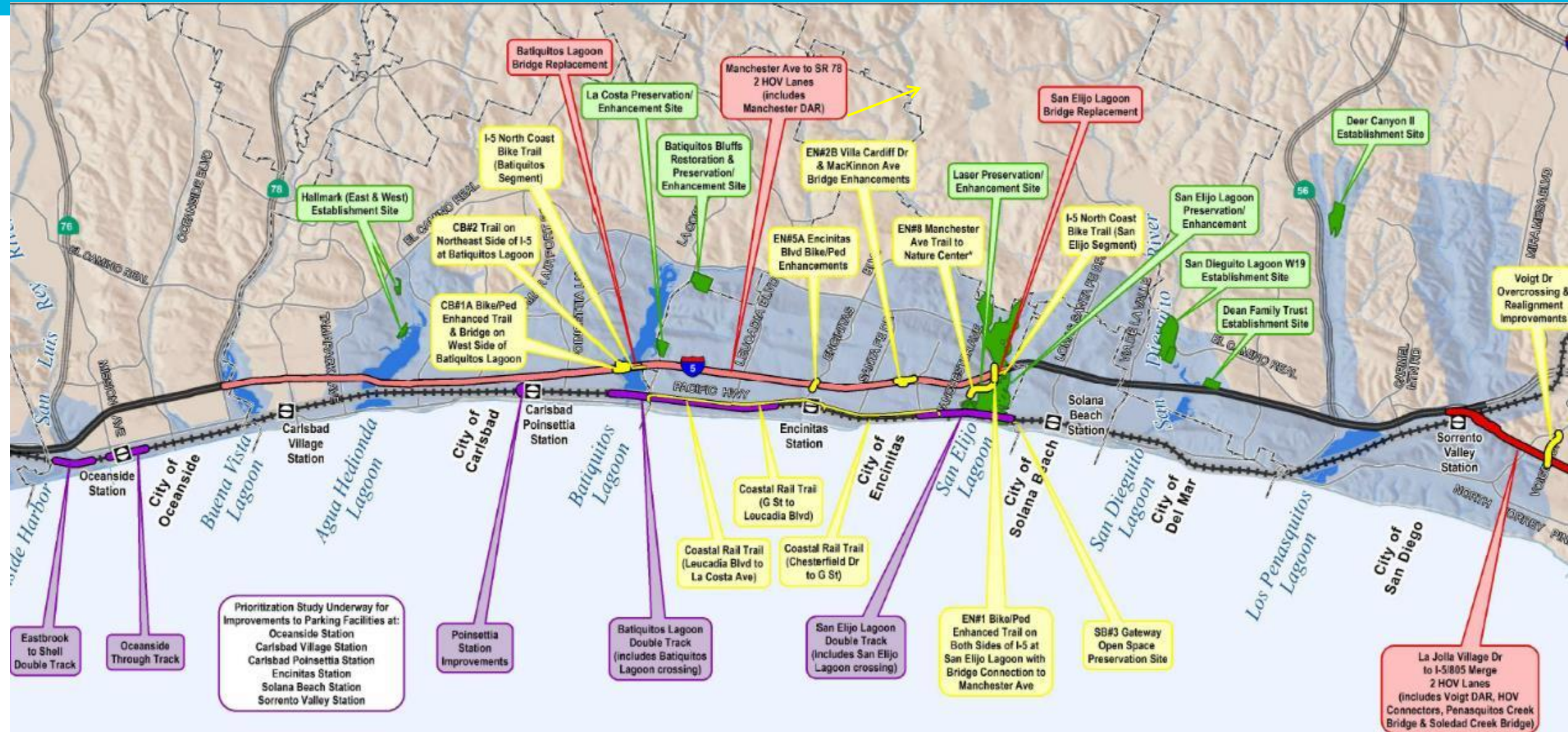


# Diversity of Different Projects & Project Types

- Protect and enhance the North Coast Corridor coastal habitat
  - Mitigation – typical mitigation as well as enhancement opportunities
- Improve coastal access and connectivity
  - Community enhancements across highway and railway (east/west)
  - Enhanced access along corridor (north/south)
- Move people, not just cars
  - Transit – Enhanced coastal bus and HOV Rapid bus
  - Freeway – improvements along I-5
  - Railroad – double-tracking and replacement of old infrastructure

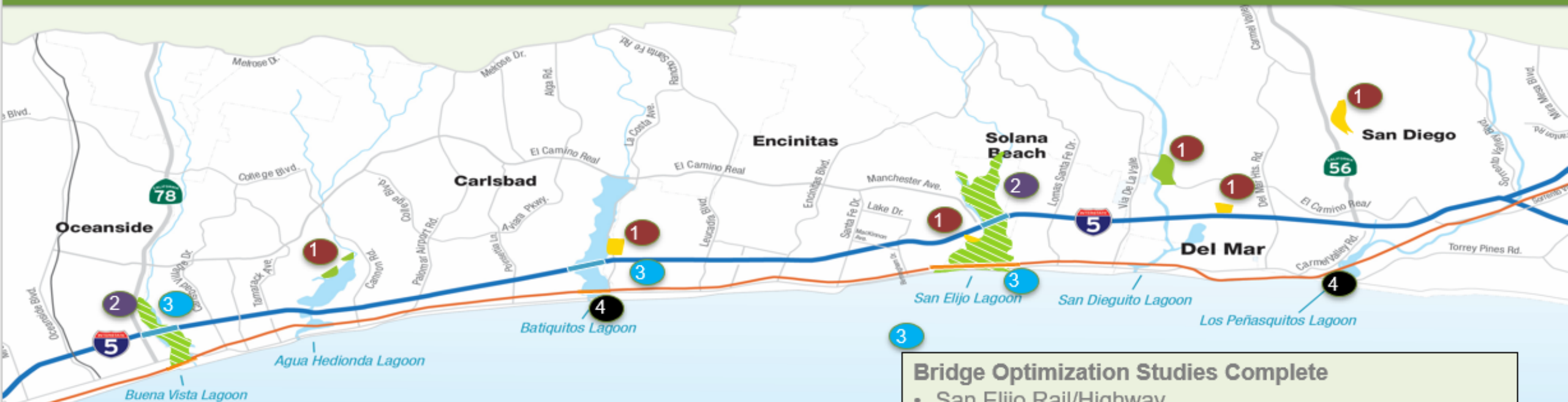


# Regional Lagoon Context





# Improving the Coastal Environment



## Site Purchased; Restoration Plan Underway

- Hallmark (east/west)
- Dean Family Trust
- Laser Property
- La Costa Property
- Batiquitos Bluffs
- Deer Canyon II
- San Dieguito Lagoon W19

## Restoration Projects in EIR/EIS Process

- San Elijo Lagoon
- Buena Vista Lagoon

## Bridge Optimization Studies Complete

- San Elijo Rail/Highway
- Batiquitos Rail/Highway
- Buena Vista Rail/Highway

## Endowment Account and Oversight Committee to be Established

- Batiquitos Lagoon Inlet Maintenance
- Los Peñasquitos Lagoon Inlet Maintenance

### LEGEND

- |                                    |                                 |
|------------------------------------|---------------------------------|
| Lagoon Enhancement                 | Mitigation Sites                |
| Habitat Sites                      | Rail Line                       |
| Lagoon Highway Bridge Optimization | Lagoon Rail Bridge Optimization |

OCEAN

# Regional Lagoon Context

- Total 6 coastal lagoons in Northern San Diego County





# Regional Lagoon Context

- Affected by infrastructure, agriculture and surrounding development but somewhat intact (e.g. not dredged for harbors, no oil & gas)
- Environmentally sensitive, but still presents restoration/enhancement opportunity





# Multiple Mitigation Sites

## Compensatory Mitigation

### Agua Hedionda Lagoon



### San Dieguito Lagoon W-19 Restoration Project







Lat 33.1428 / Long -117.3174

Park Drive

Agua Hedionda

## Legend

 Hallmark West

**SANDAG**

Pictometry International Corp



# Hallmark West





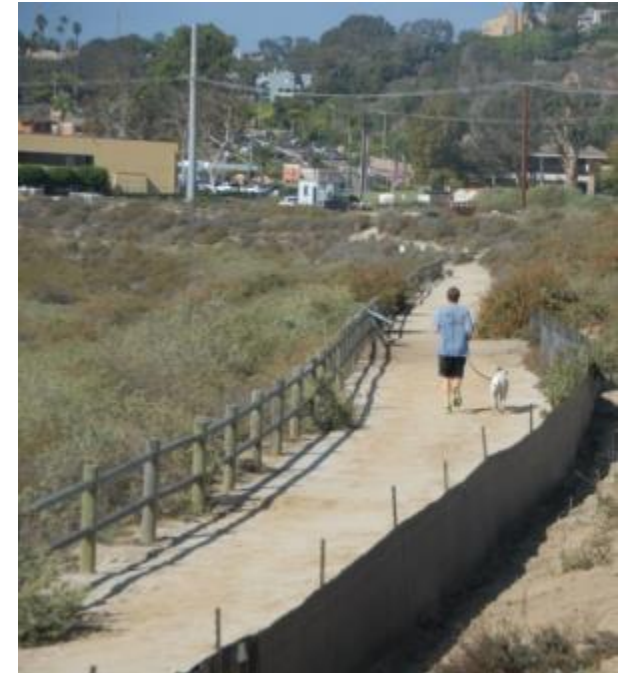
# San Dieguito Lagoon, W-19 Restoration Project





# San Dieguito Lagoon: Current Conditions

- Publically owned with established land manager
- Remnant Agricultural Land
- Planned for restoration; adjacent to SCE restoration project
- Within San Dieguito River Park (trails and public access)
- Previously determined feasible for restoration



# San Dieguito Lagoon: Purpose & Objectives

## Purpose

- Establish tidal wetlands and associated habitats as mitigation for coastal transportation projects

## Objectives

- Establish 50 acres of coastal wetlands and upland mitigation
- Establish approx. 15 acres of brackish wetlands and 5 acres of riparian restoration/enhancement for *El Camino Real Bridge Replacement Project*
- Promote sustainable system resilient against sea level rise.
- Enhance trail connectivity and public access
- Complement adjacent restoration efforts and be compatible with existing Southern Cal Edison (SCE) agreements
- Maintain coastal littoral zone conditions along the beach/coastline.
- Maintain or enhance current flood protection





# San Dieguito Lagoon: Project Boundaries

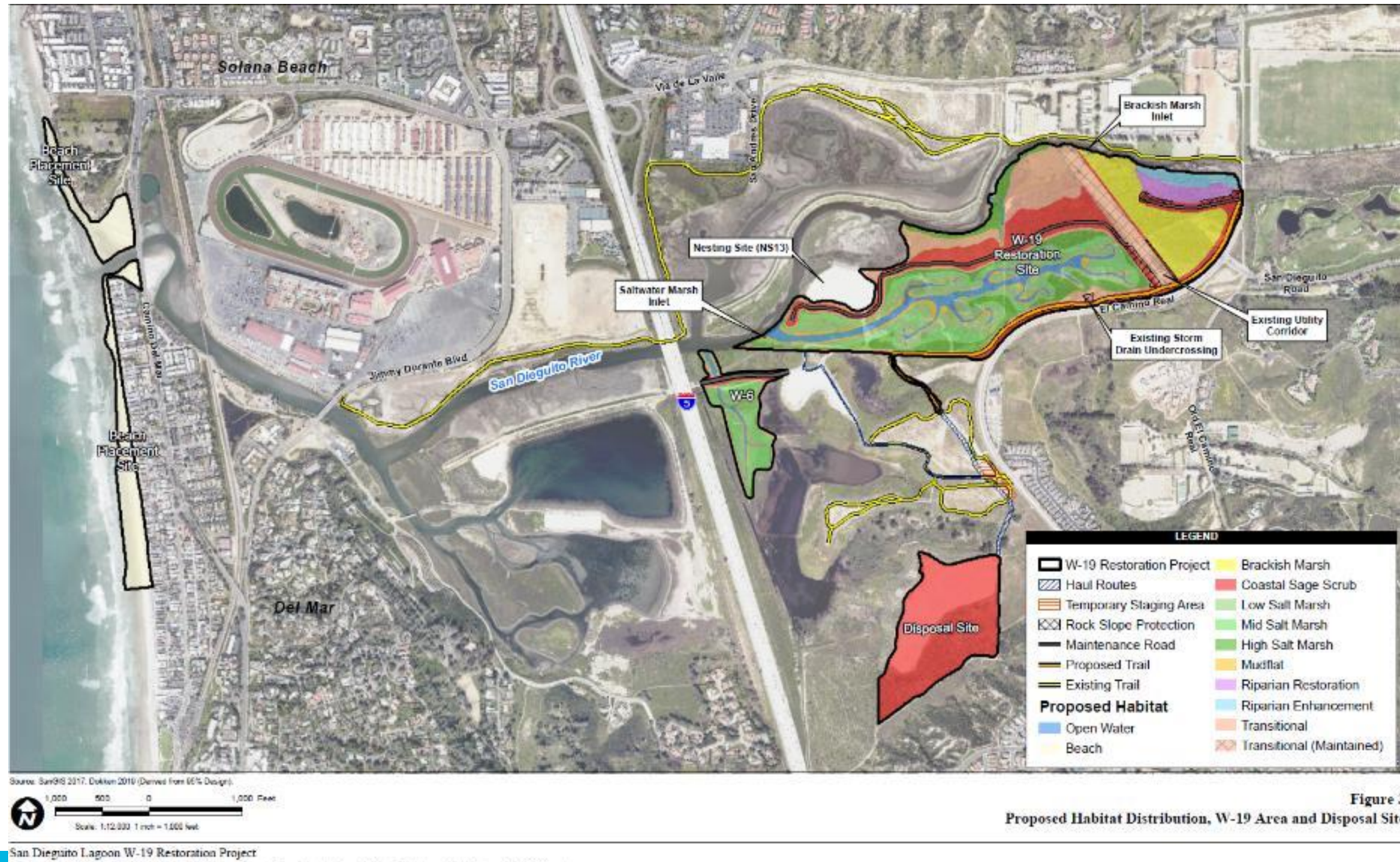


Figure 3  
Proposed Habitat Distribution, W-19 Area and Disposal Site

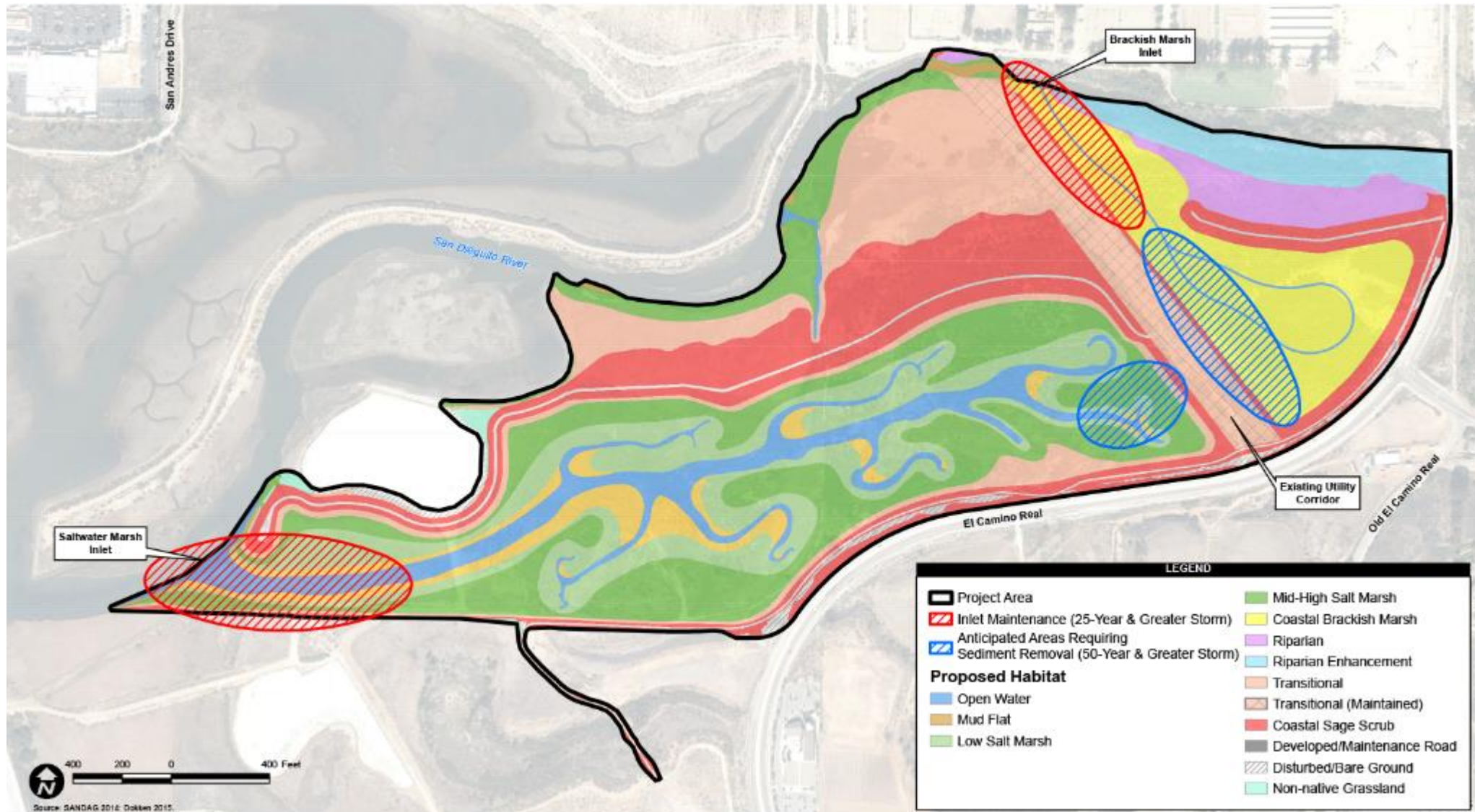
# San Dieguito Lagoon: Design Process and Analysis

- Extensive Hydraulic Modeling
  - Fluvial and Tidal modeling
  - Two dimensional fluvial model (Army Corps of Engineers)
  - Predicted some tidal muting in adjacent restored wetlands
- Material Disposal
  - Earthmoving up to 1.1 million cubic yards of material
  - Onsite disposal critical to project feasibility
- Maintenance/Management In Perpetuity
  - W-19 inlet maintenance after large storm events anticipated
  - Materials viable for beneficial reuse so beach placement anticipated
  - Importance of maintaining sediment delivery to beach
  - Placement north and south on beach at river inlet (combined with SCE)



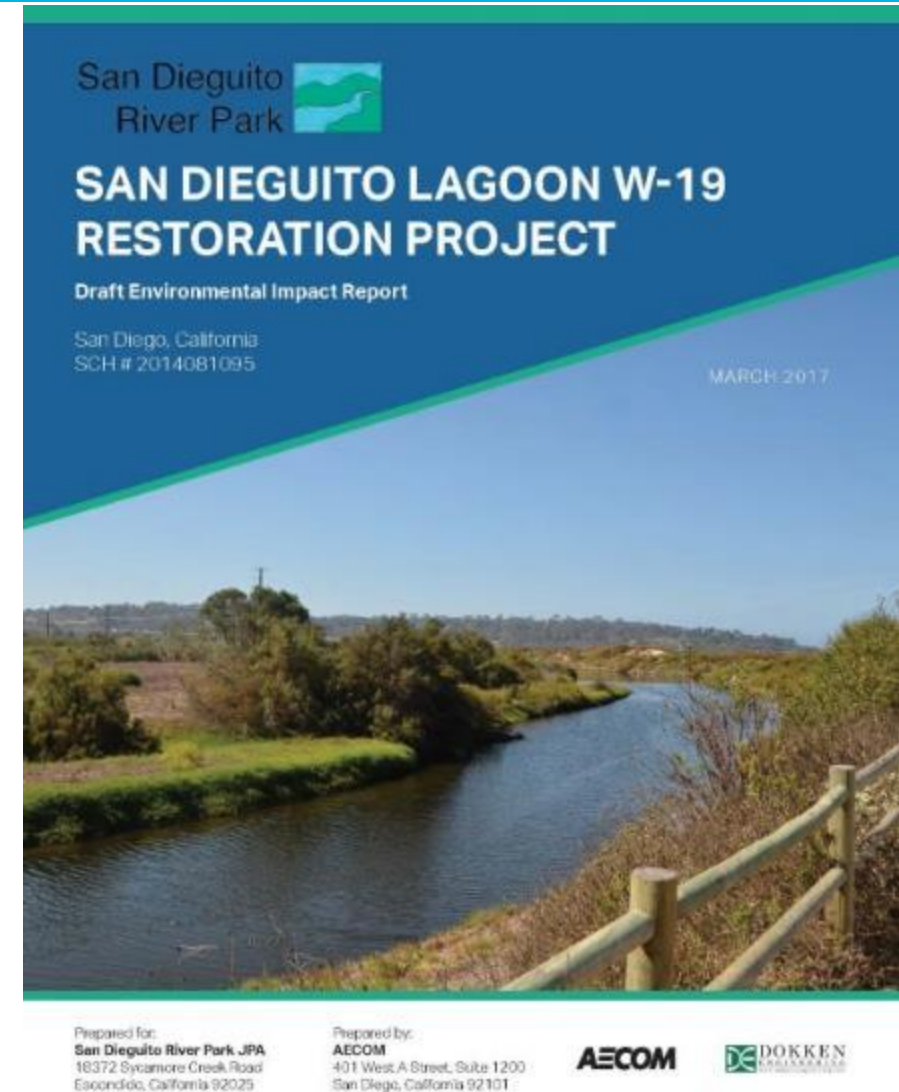


# San Dieguito Lagoon: Proposed Project



# San Dieguito Lagoon: Current Status

- Final EIR Certified November 2018
- Permitting is complete
- 100% Design underway
- Completing written agreements with participating stakeholders
  - SCE
  - City of San Diego
- Construction anticipated fall 2021





# Multiple Mitigation Sites

## Inlet Maintenance

Los Penasquitos Lagoon



Batiquitos Lagoon



# Los Penasquitos Lagoon





# Batiquitos Lagoon





# Multiple Mitigation Sites

## Regional Lagoon Enhancement

### San Elijo Lagoon Restoration Project



### Buena Vista Lagoon Enhancement Project







***Keep San Diego Moving***  
**TransNet**

## Buena Vista Lagoon Enhancement





*“The analysis indicated it is likely that all of the existing open water area, except for a small flow channel, will evolve to vegetated habitat within the next 50 years.”*

Page vii Feasibility Study (2004)



Buena Vista Lagoon. (photo by Sean Baumgarten, January 2013)

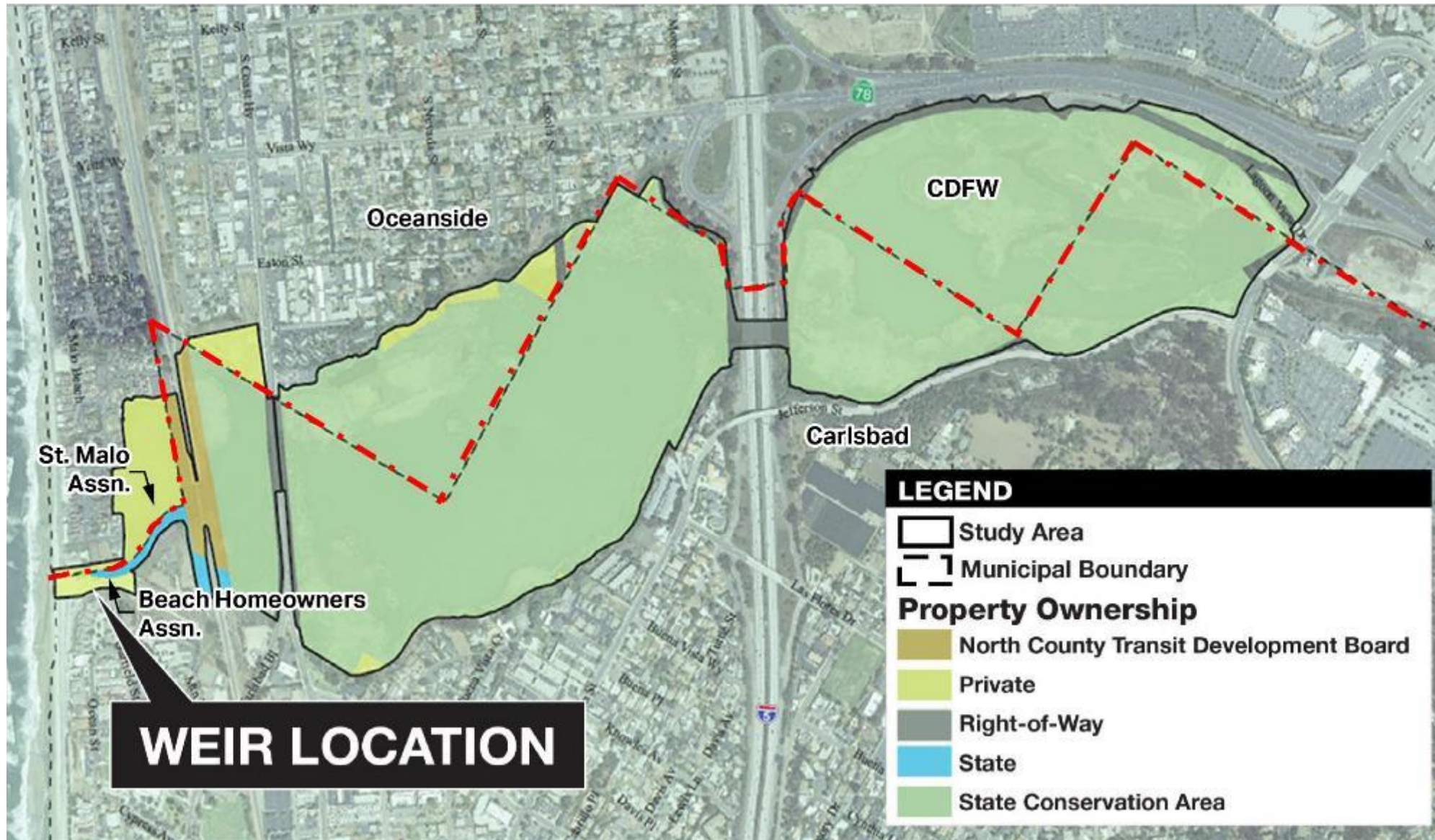




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# Location and Ownership



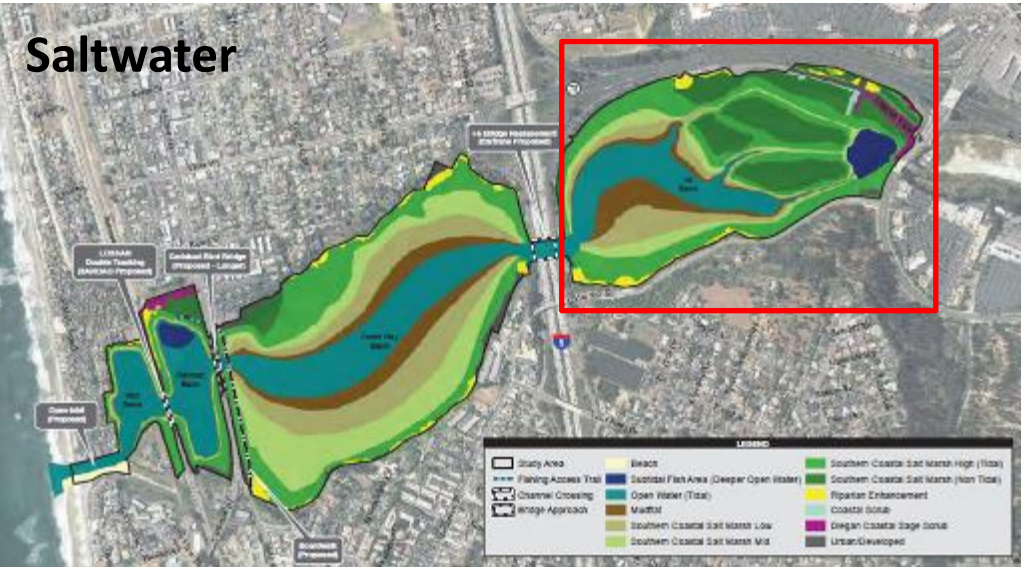


## Prior Alternatives

## No Project Alternative



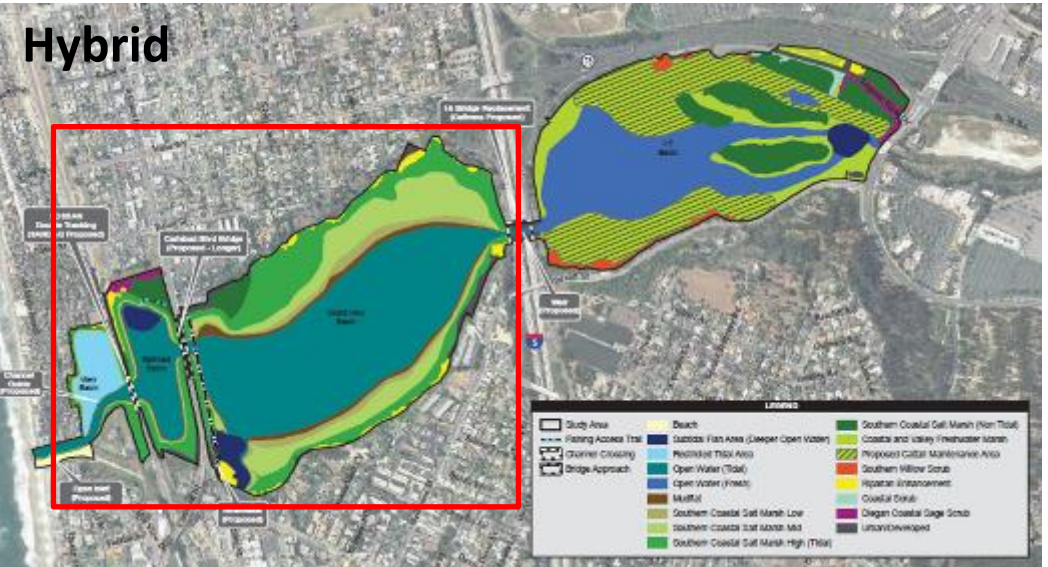
## Saltwater



# Freshwater



## Hybrid



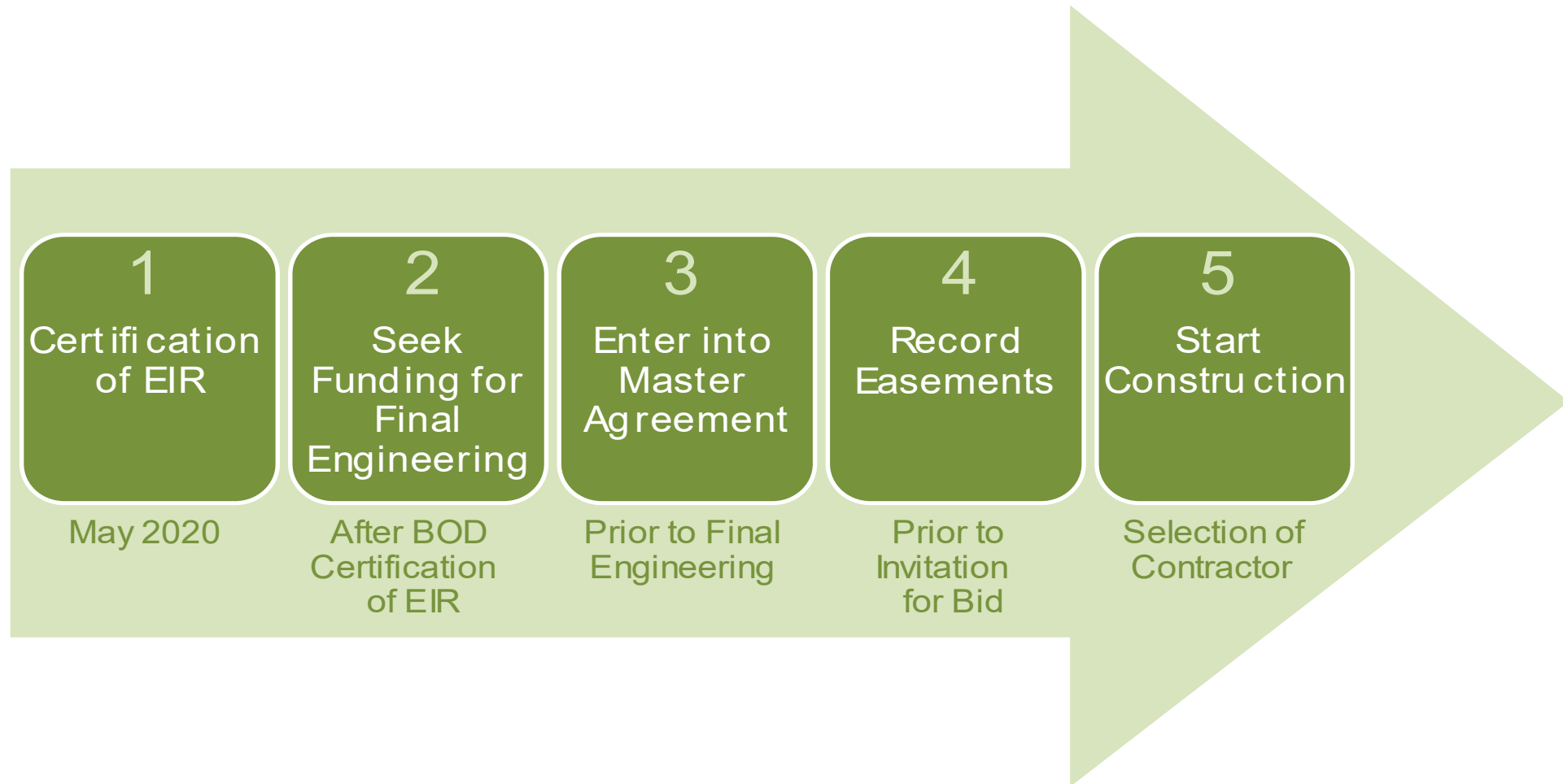


# Modified Saltwater Alternative





# Next Steps



# Thank You!



# Questions?