

# OXFORD RETENTION BASIN MULTIUSE ENHANCEMENT PROJECT

COUNTY OF LOS ANGELES  
DEPARTMENT OF PUBLIC WORKS

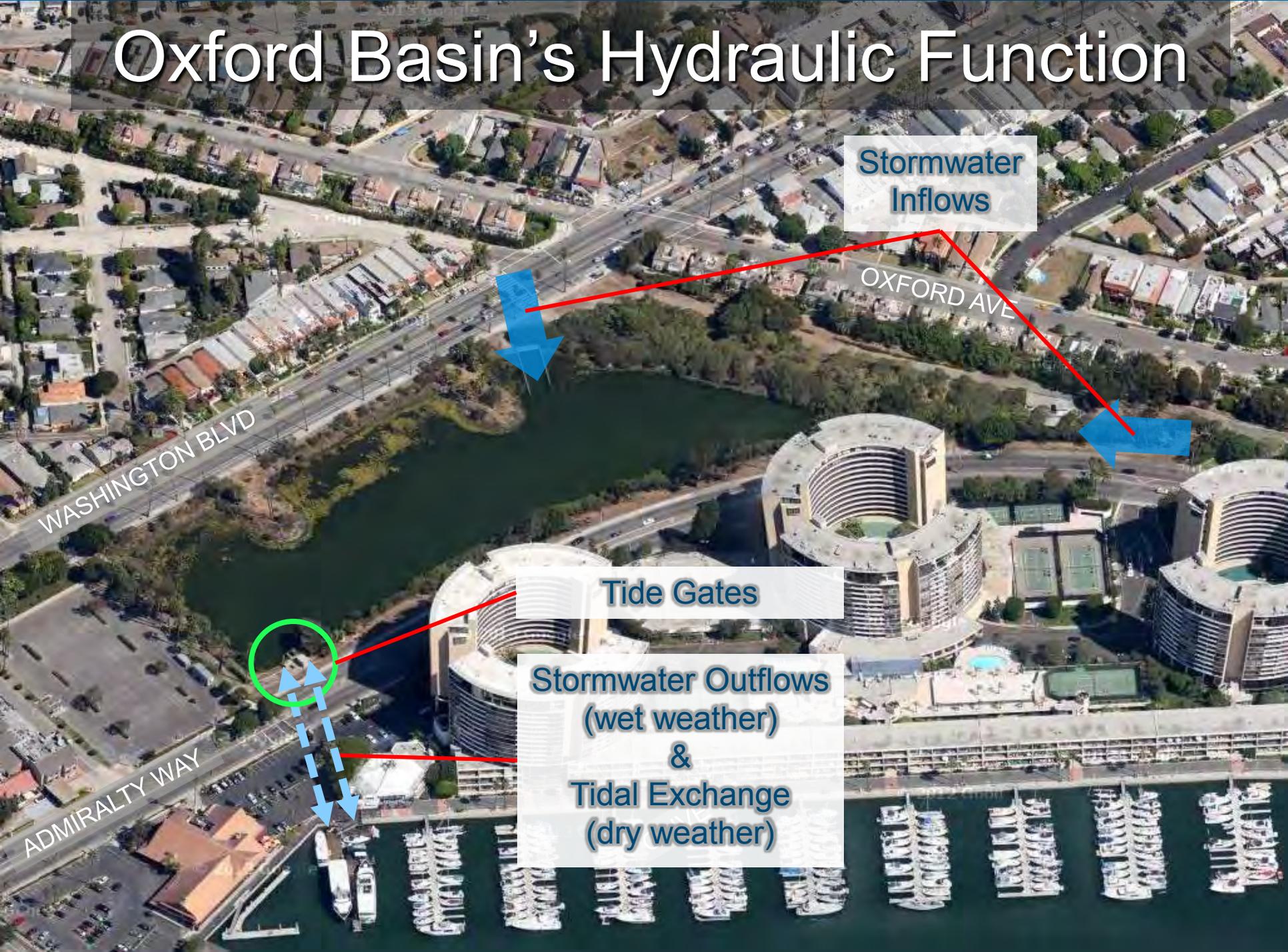
June 13, 2014



# Project Location Map



# Oxford Basin's Hydraulic Function



Stormwater Inflows

OXFORD AVE

WASHINGTON BLVD

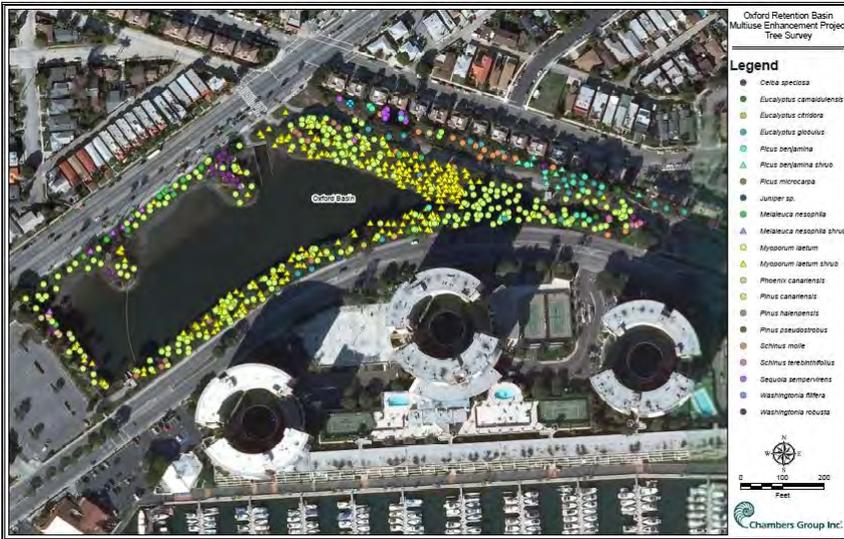
Tide Gates

Stormwater Outflows  
(wet weather)  
&  
Tidal Exchange  
(dry weather)

ADMIRALTY WAY

# Extensive Scientific Studies

- Biological
  - Birds, Fish, Insects
  - Vegetation
- Soils
- Water Quality



# Broad Community Outreach

- Public outreach since 2007
- Over 20 presentations to various groups and public boards
- Dozens of conversations with neighbors and other interested parties
- Community input resulted in significant project refinement



# Key Project Elements

## Flood Control

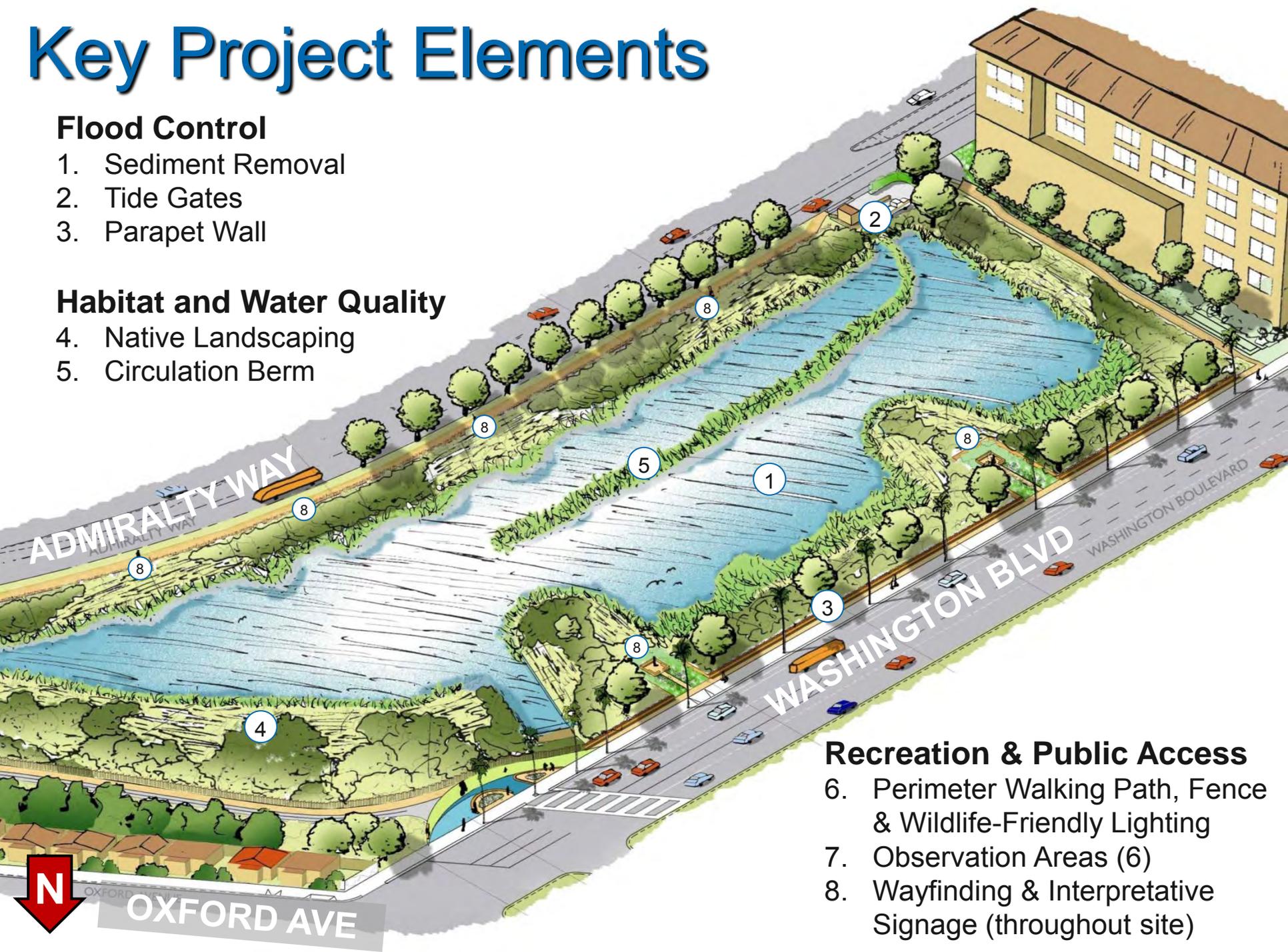
1. Sediment Removal
2. Tide Gates
3. Parapet Wall

## Habitat and Water Quality

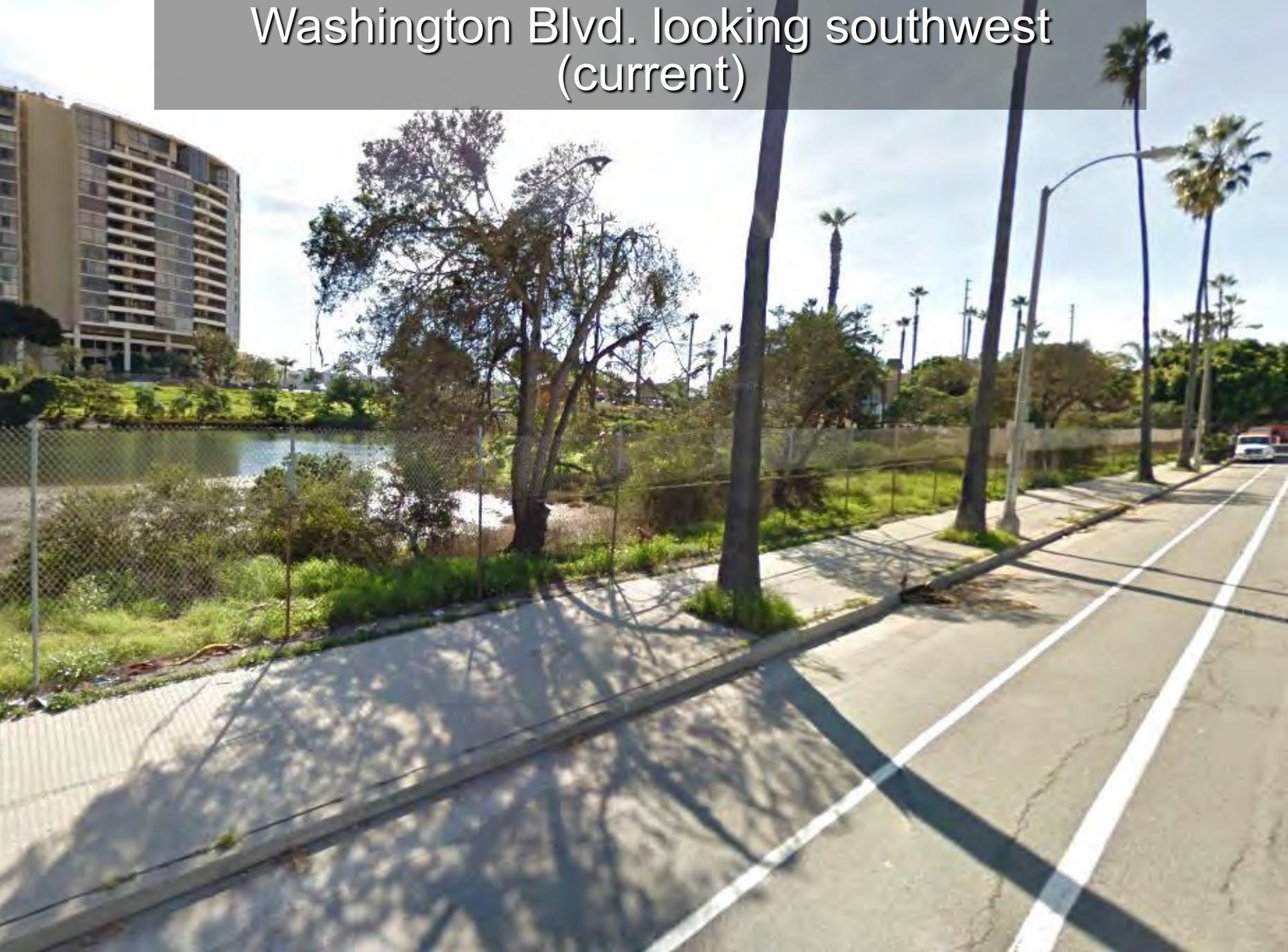
4. Native Landscaping
5. Circulation Berm

## Recreation & Public Access

6. Perimeter Walking Path, Fence & Wildlife-Friendly Lighting
7. Observation Areas (6)
8. Wayfinding & Interpretative Signage (throughout site)



# Washington Blvd. looking southwest (current)



# Washington Blvd. looking southwest (proposed)



# Admiralty Way looking west (current)



# Admiralty Way looking west (proposed)



# Gateway Area (current)



# Gateway Area (proposed)



# Similar Plant Palette – Ballona Lagoon



# Example Signage

## OXFORD BASIN

### NATURE LOOP

## OXFORD BASIN NATURE LOOP

WE INVITE YOU TO EXPLORE THE OXFORD BASIN NATURE LOOP AND DISCOVER ITS UNIQUE AND DIVERSE HABITAT. SOME OF THE SPECIES FOUND AT THE BASIN ARE SENSITIVE AND ARE ENDANGERED. WE ENCOURAGE YOU TO FIND MORE ABOUT THE ANIMALS AND THE PLACE THEY CALL HOME AS THEY COME ENCOUNTER OUR FIVE OBSERVATION AREA. FOLLOW THE SIGNS AS THEY WILL SHOW YOU THE TRAIL DIRECTION AND THE MILES YOU HAVE TRAVELLED.

**OXFORD BASIN**

APPROX. LOOP PERIMETER IS: **.66 MILES**  
**3 LAPS = 2 MILES**

## NATIVE PLANT COMMUNITIES OF OXFORD BASIN

### NATIVE PLANTS

Native plants naturally occur in the region in which they evolved and are adapted to local rainfall, soil, and temperature conditions. Native plants have adapted to our climate, only require minimal irrigation and low maintenance indicating their environmental impact.

#### COASTAL SALT MARSH

This wetland plant community occurs along the coast where water flows from inland sources. Plants in this community are adapted to a high concentration of salt and oxygen-depleted soils.

- Salt Grass** (*Distichlis spicata*)
- Southwestern Spring Rush** (*Juncus roemerianus*)
- Pinkweed** (*Salsola vermiculata*)
- Alkali Heath** (*Frankenia calida*)

#### COASTAL SAGE SCRUB

This plant community, found along the coasts of Baja California and Southern California is characterized by low-growing, aromatic species. Many plants in this community are summer or drought deciduous and drop larger leaves during mid-summer to conserve moisture.

- Purple Needlegrass** (*Acrochloa pallidula*)
- California Sagebrush** (*Artemisia californica*)
- California Buckwheat** (*Eriogonum fasciculatum*)
- California Escalla** (*Eriolaena californica*)

#### WILLOW SCRUB

This dense plant community provides important browsing and foraging habitat for many riparian wildlife species. In coastal Los Angeles County, willow scrub often includes:

- California Blackberry** (*Rubus ursinus*)
- Desert Grape** (*Vitis californica*)
- Mudflat Blackberry** (*Rubus phyllanthifolius*)
- Narrow Leaf Willow** (*Salix lasiolepis*)

## OXFORD BASIN

### TIDES & THE MOON

TIDES are periodic rises and falls of bodies of water and are caused by the gravitational attraction of the Moon across the oceans. Between the earth and Moon, the gravitational attraction of the Moon causes the oceans to "bulge" and in the direction of the Moon. This is the location of the earth as this happens, two bulges typically occur each day.

**SPRING TIDES**  
Spring tides are during tides that occur when the Earth, the Sun, and the Moon are in a line. The gravitational forces of the Moon and the Sun both contribute to the tides. Spring tides occur during the full moon and the new moon of each month.

**NEAP TIDES**  
Neap tides are weak tides that occur when the gravitational forces of the Moon and the Sun are perpendicular to one another in relation to the Earth. Neap tides occur during quarter moons.

### OCEAN TIDAL EXCHANGE

**TIDE GATE A OPENS?**  
This gate is opened during rising tides, sending water from Basin E into the Ocean Basin. Water from the Ocean Basin's elevation reaches its maximum elevation of 1.5 feet above the mean sea level, and the gate closes. The gate remains closed during falling tides.

**TIDE GATE B CLOSURES**  
This gate is extended closed and only opens during falling tides. The water to circulate around the basin and out of Oxford Basin into Basin E. As this process occurs the water quality in Oxford Basin improves according to the habitat in Oxford Basin and the water that goes out to the ocean.

## OCEAN, TIDES & STORMWATER

**DRY WEATHER: TIDAL EXCHANGE**

- During dry weather, water from Marina del Rey's Basin E flows in and out of Oxford Basin through two gates that control the flow of water.
- Take gate A is programmed to open during rising tides, sending water from Basin E into Oxford Basin.
- Water from Marina del Rey's Basin E circulates around Oxford Basin, improving water quality in Oxford Basin.
- Water flows from Basin E into Oxford Basin during high tides and opens to release water from Oxford Basin during falling tides, sending the water to circulate out of Oxford Basin into Marina del Rey's Basin E.

**RAIN: FROM DRAIN TO OCEAN**

When it rains, the water collects in the drains and flows into Oxford Basin. The two tide gates close to hold the water in the Basin and release it to the sea level.

- Stormwater spills into drains.
- Water flows to Oxford Basin.
- Tide gates close to hold water.

## RESIDENTS OF OXFORD BASIN

- American Wigeon** (*Anas americana*)  
Wades in variety of wetlands both fresh and salt water. Feeds almost entirely upon aquatic plants during the open breeding season.
- Anna's Hummingbird** (*Calypte anna*)  
Urban & suburban settings. Feeds on nectar from small flowers & woodlands. Nectar from various flowers, small shrubs & trees.
- Black Phoebe** (*Sayornis nigricans*)  
Widespread in open areas near water, but common for birds.
- Black-crown Night Heron** (*Nycticorax nycticorax*)  
Widespread along coasts, creeks, ponds, estuaries, and wetlands. Feeds mainly at night on fish, reptiles, and amphibians.
- Yellow-rumped Warbler** (*Geothlypis trichas*)  
Strongly visible on oaks & suburban settings, marshes, & coastal scrub. Mostly breeds in trees.
- Honey Bee** (*Apis mellifera*)  
Widely encountered in rural/urban. Found wherever flowers are abundant. Nectar is pollen from various flowers.
- Monarch Butterfly** (*Danaus plexippus*)  
Open fields, meadows & forests. Most common butterfly in California.
- Painted Lady Butterfly** (*Gynandax caradocis*)  
Coturnioles, found in many habitats, especially sunny meadows. Near or within flowers, especially red flowers.
- Common Green Darter Dragonfly** (*Zygoptera*)  
Breeds in ponds & lakes. Adults hunt flying insects in flight.

## WILDLIFE: Can You Find Me?

### SNOWY EGRET

**HABITAT**  
Although historically considered very sensitive to human disturbance on their breeding grounds, Snowy Egrets have adapted to the extensive presence of humans near lakes, reservoirs, canals, bays, and marshes up and down the coast of California, where thousands of pairs now breed. Snowy Egrets are now year-round residents in Marina del Rey, benefiting from trees and mangroves that provide nesting sites, and from the large quantity of Oxford Basin in the marina, and of other nearby wetlands such as the Ballona Wetlands.

**FOOD**  
The Snowy Egret feeds on worms, algae and terrestrial insects, crustaceans, snails, fish, amphibians and mollusks. Snowy Egrets employ a variety of foraging techniques that may include fish-scooping, head-bobbing, stooping, and wing-flapping. They frequently use their long feet to stir water and sediment, helping to expose prey items.

### GREAT EGRET

**HABITAT**  
The Great Egret is another recent resident of Marina del Rey, although its numbers remain fewer than the Snowy Egret. The presence of people, along with our canals, bays, and lakes, does not appear to hinder their settlement. In fact, Marina del Rey is home of many examples of developed bays, harbors, marshes, and reservoirs in the region in which waterbirds now share space with humans. Oxford Basin is an important foraging area for Great Egrets in the local area.

**FOOD**  
Great Egrets forage by wading in shallow water, standing on a dock, and wading through fields. They employ a variety of foraging techniques that may include fish-scooping, head-bobbing, stooping, and wing-flapping. They will often stand still for long periods waiting for prey to appear. When they see their rock and dogger the bill to strike with lightning speed.

# OXFORD BASIN

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# Grants and Other Endorsements

- Santa Monica Bay Restoration Commission Prop 84 Grant – \$2.0M
- Integrated Water Resources Management Prop 84 Grant – \$1.5M
- Approved by Marina del Rey Design Control Board
- Public support from Marina del Rey Convention & Visitor's Bureau, MdR Lessee's Association, LAX Coastal Chamber of Commerce, etc.

# CEQA and Other Permit Status

- CEQA: MND – No Significant Impacts identified
  - Adopted by LA County Board of Supervisors 12/3/13
  - Mitigation to minimize potential wildlife, cultural resources impacts
- CA Regional Water Quality Control Board
  - 401 Permit issued 12/20/2013
- US Army Corps of Engineers
  - 404 Permit issued 4/4/2014
- CA Dept. of Fish and Wildlife
  - Streambed Alteration Agreement issued 4/15/14

# Current Project Status

- Target Construction Start: Fall 2014
  - Nesting Season January 1 – September 30
  - Storm season October 1 – April 1
- Estimated Construction Duration  
12 Months

# Thank You



County of Los Angeles  
Department of Public Works  
dpw.lacounty.gov

**ANGELA GEORGE, P.E.**

Watershed Management Division

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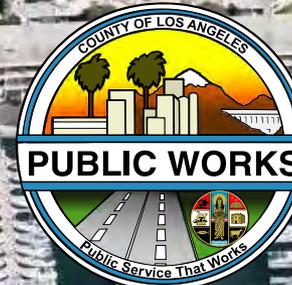
County of Los Angeles  
Department of Public Works  
dpw.lacounty.gov

**JOSHUA SVENSSON, P.E.**

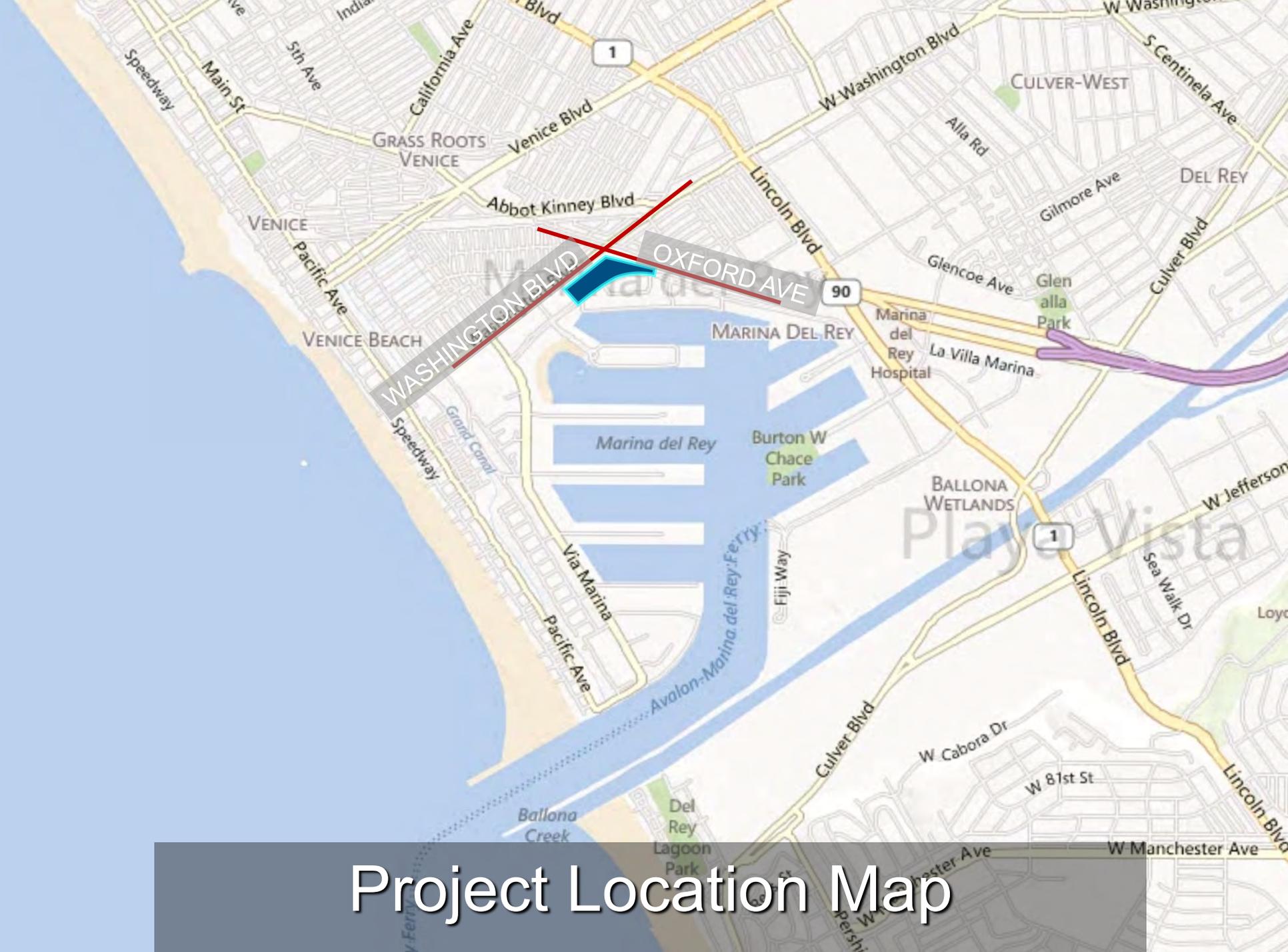
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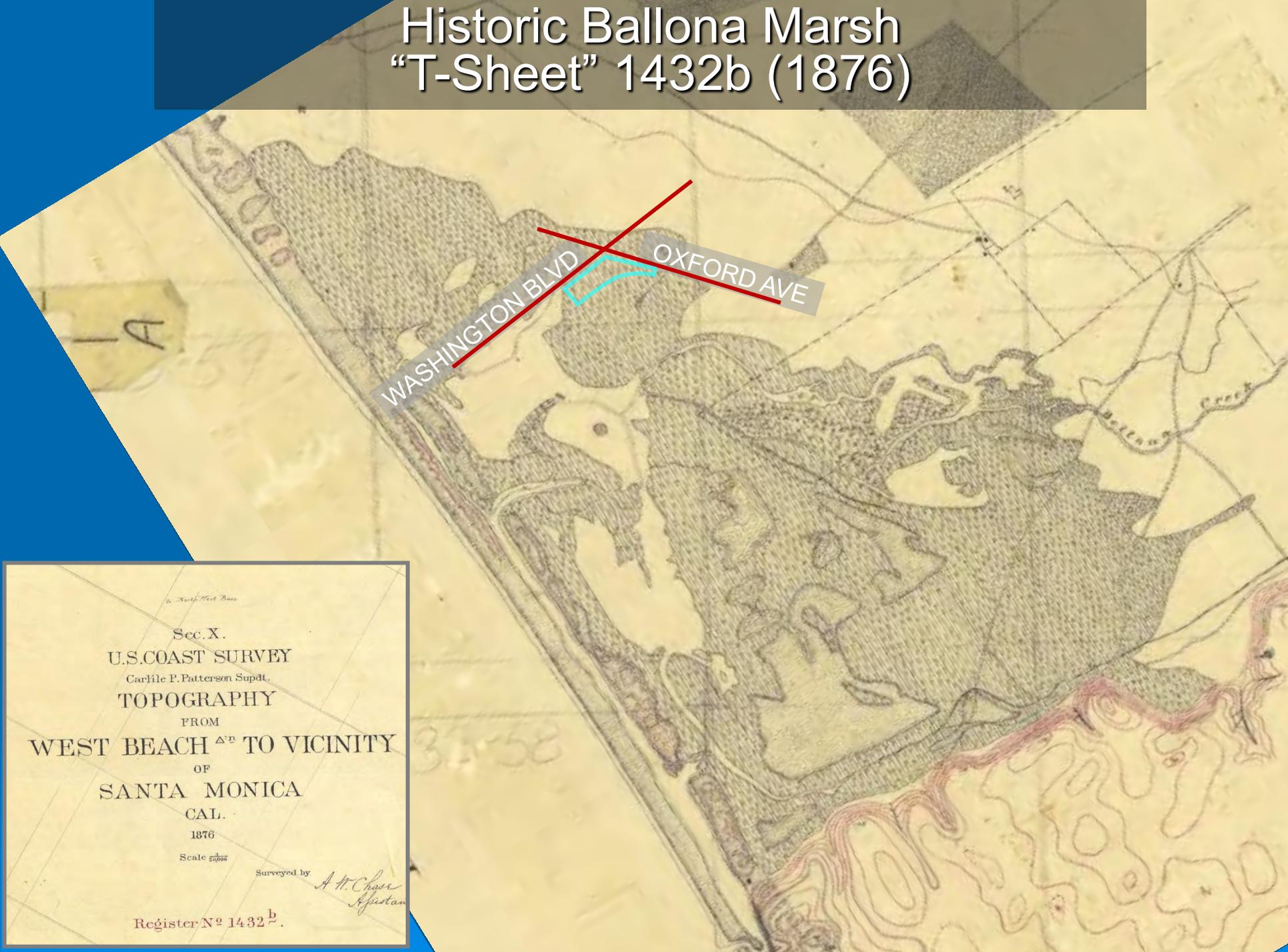






# Project Location Map

# Historic Ballona Marsh "T-Sheet" 1432b (1876)



North-Tail Base

Sec. X.

U.S. COAST SURVEY

Carlisle P. Patterson Supdt.

TOPOGRAPHY

FROM

WEST BEACH <sup>Δ</sup> TO VICINITY

OF

SANTA MONICA

CAL.

1876

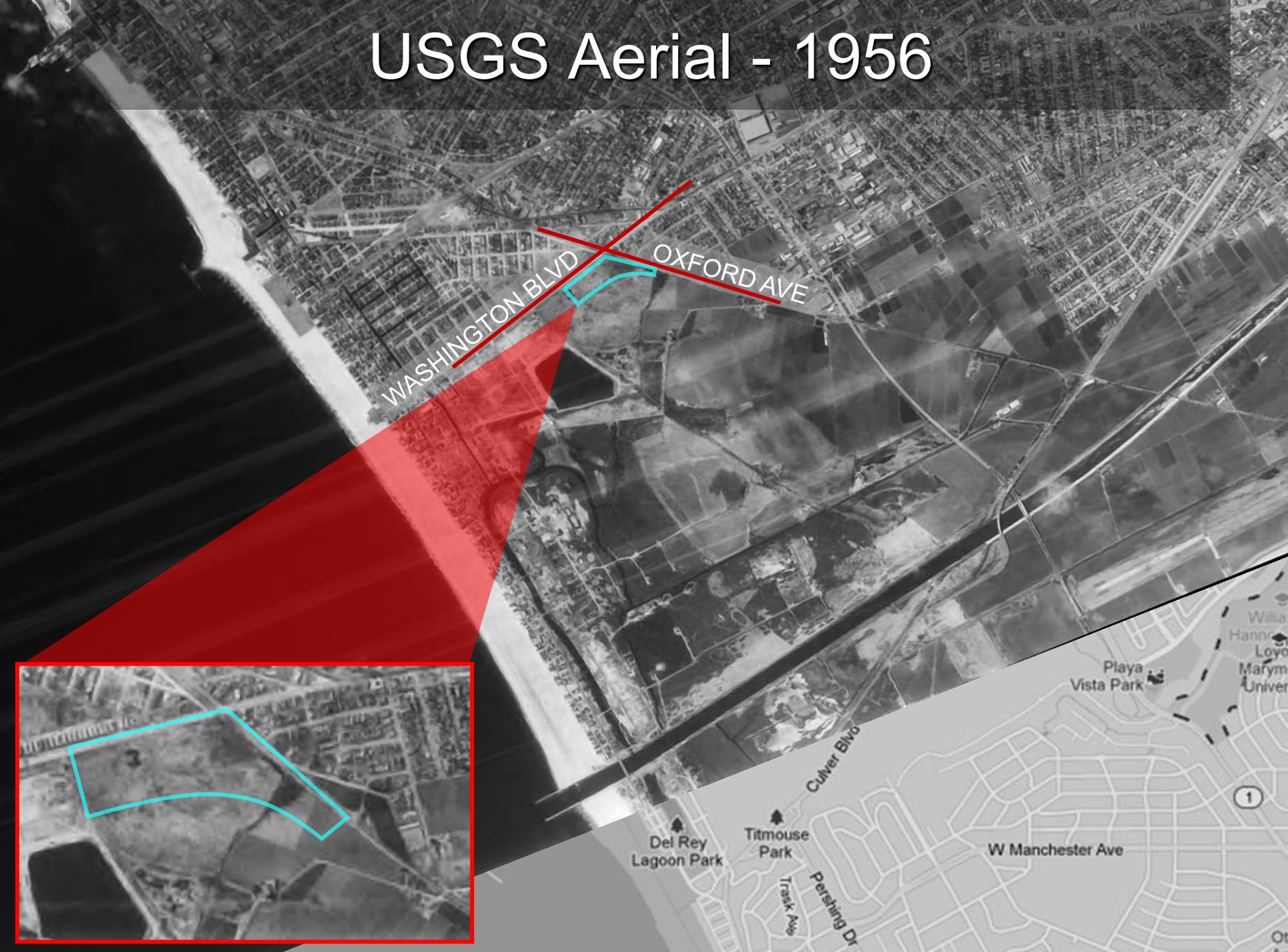
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Surveyed by

*A. H. Chase  
J. H. Spurr*

Register No 1432<sup>b</sup>.

# USGS Aerial - 1956



WASHINGTON BLVD

OXFORD AVE



Del Rey Lagoon Park

Titmouse Park

Culver Blvd

Pershing Dr

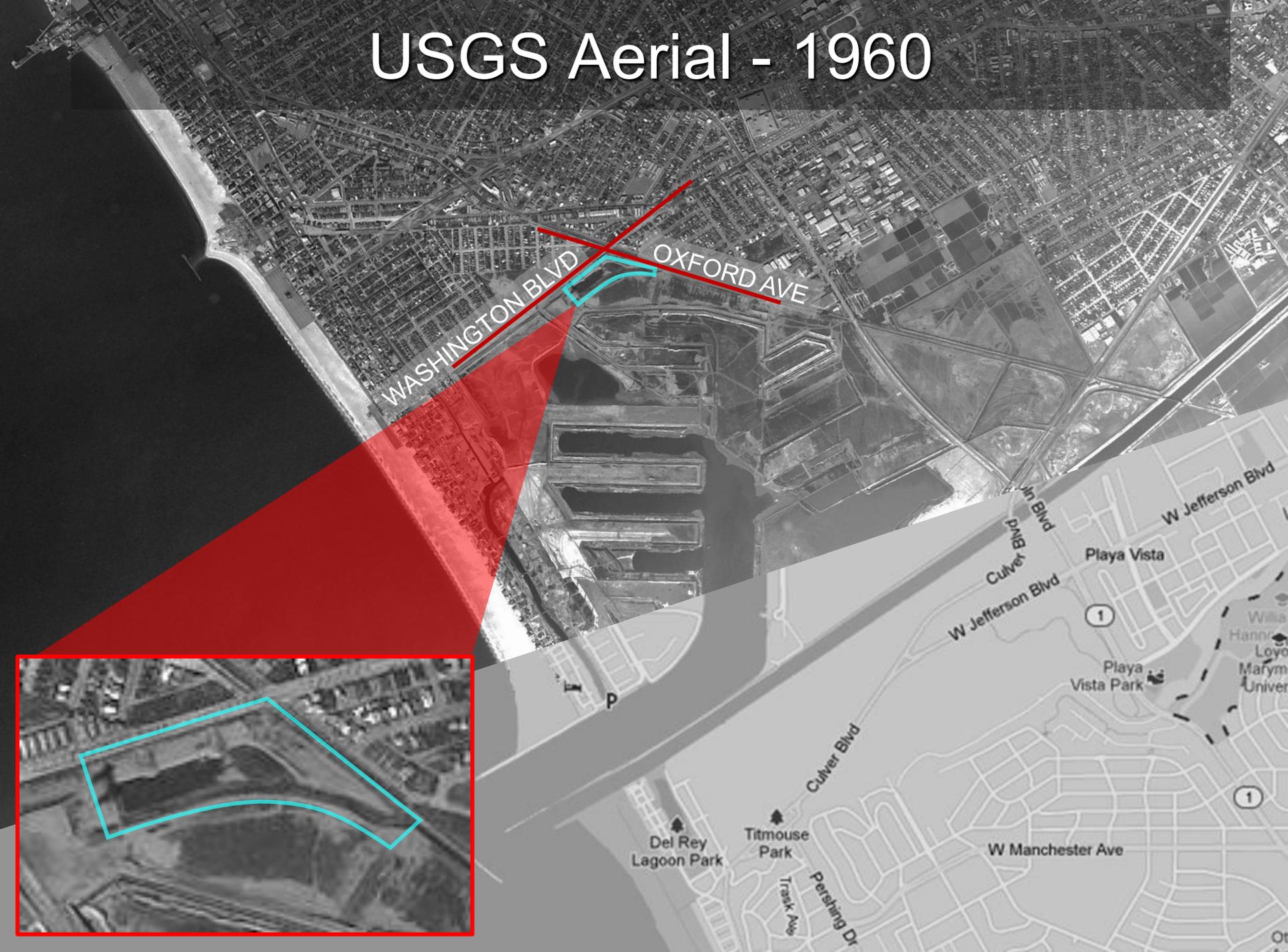
W Manchester Ave

Playa Vista Park

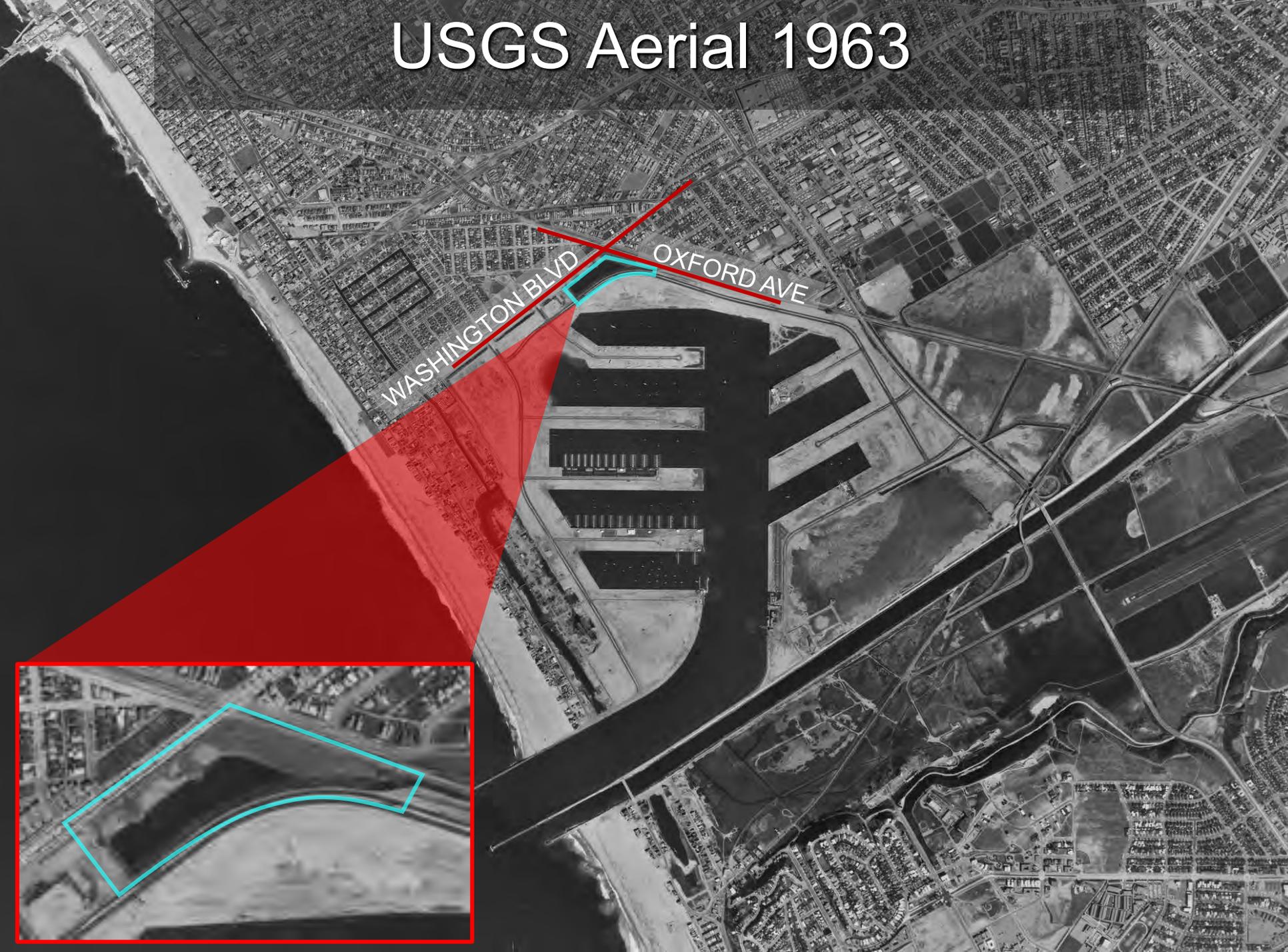
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# USGS Aerial - 1960



# USGS Aerial 1963



WASHINGTON BLVD

OXFORD AVE



# USGS Aerial 1980

Pacific Av

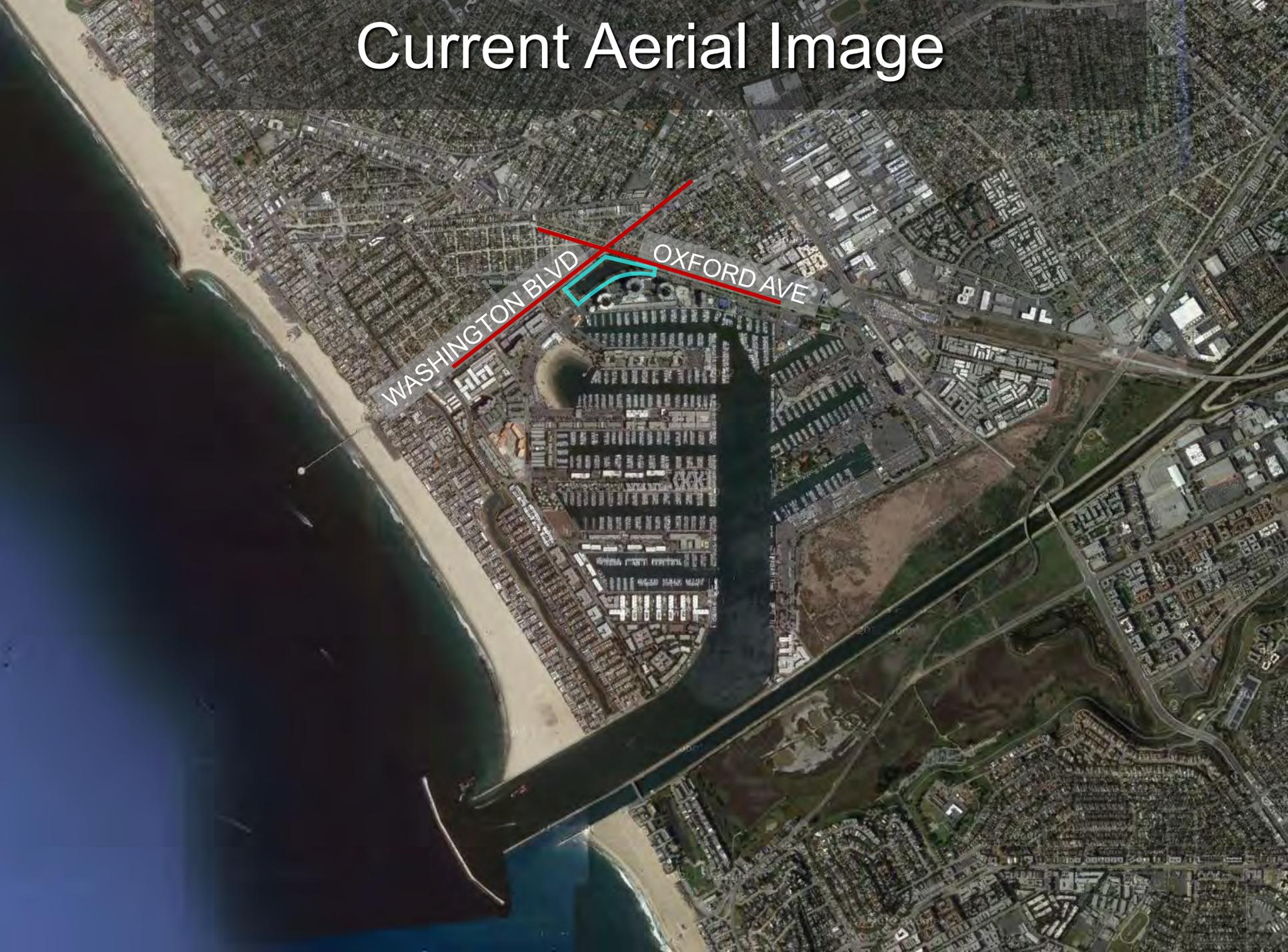
WASHINGTON BLVD

OXFORD AVE



Shing Dr

# Current Aerial Image



# Oxford Basin's Watershed



# Pedestrian Path Next to Existing Bike Path (proposed)

