



City of Long Beach

# Colorado Lagoon Restoration Project

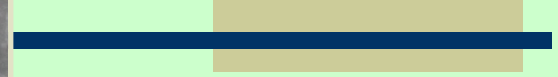


# 1896 Etching With Overlay of Lagoon Location



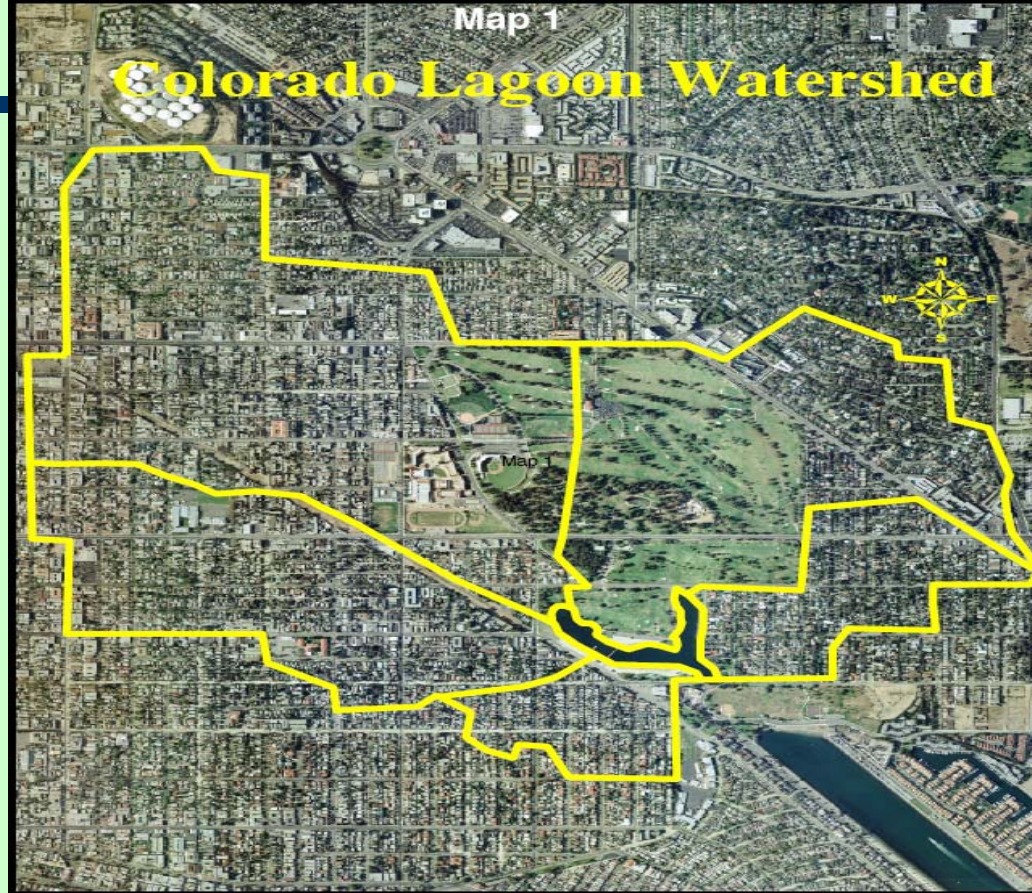


## 1928 – No Tidal Restrictions



## Existing Conditions





- ◆ The Lagoon's watershed consists of 1,172 acres.
- ◆ Lagoon is lowest spot in watershed.
- ◆ Increased area development led to increased runoff, decreased water quality and increased sedimentation.
- ◆ Currently on State's 303d list of impaired water bodies.

# Degraded Conditions

- Degraded water quality.
- Poor intertidal circulation.



- Contaminated sediments (metals).
- Frequent high bacteria concentrations.



# Project Planning and Development

- ◆ Feb. 2005: Conceptual Restoration Study.
- ◆ Oct. 2008: Project EIR Certified.
- ◆ 2009 – Present: Engineering Design, Permitting, Fundraising and Implementation.
- ◆ Nov. 2010: EIR Addendum Approved.

# Master Restoration Plan

- ◆ Improvements Benefiting Water and Sediment Quality
- ◆ Habitat Improvements
- ◆ Recreational Improvements

Project partners include the State Coastal Conservancy, Rivers and Mountains Conservancy, State Water Resources Control Board, U.S. Army Corps of Engineers, Fish & Wildlife Service, NOAA, EPA, FOCL and the City and Port of Long Beach.

# Major Project Components

- ◆ Construction of a low-flow sewer diversion system (Part 1)
- ◆ Construction of trash traps at the remaining major storm drains (Part 1)
- ◆ Cleaning of the underground culvert (Part 1)
- ◆ Construction of vegetated bioswale (Part 1)
- ◆ Removal, treatment and disposal of contaminated sediment (Part 2)



# Major Project Components

- ◆ Removal of abandoned bathroom and access road (Part 3)
- ◆ Construction of a perimeter trail around the lagoon (Part 3)
- ◆ Removal of Non-native plants and revegetation with native plants (Ongoing)
- ◆ Construction of an open-channel (Part 4, aka Phase 2).





# Status of Project



- ◆ Implementation dependent on funding availability.
- ◆ Major storm drain improvements have been constructed, eliminating the sources of contamination.
- ◆ The next construction effort involves removal, treatment and disposal of contaminated sediment.
  - Partially funded.

# Construction Cost Estimates

- ◆ Cost Estimate without including Construction Management: \$7,044,900.
- ◆ Cost Estimate including Construction Management: \$8,101,636.
- ◆ If today's funding request is approved, total secured funding will equal: \$7,900,000.
- ◆ Cost Estimate included in the TMDL: \$12 million.
  - Based on previous projects and current market prices.
  - City's estimate reflect disposal cost savings.



# Construction Timeline

- ◆ Bid Advertisement: June 2011.
- ◆ Lowest Responsible Bidder Selected: August 2011.
- ◆ Construction Contract Executed: Late August 2011.
- ◆ Final Permits Obtained: September/October 2011.
- ◆ Groundbreaking: Oct. 16 - Nov. 1, 2011.
- ◆ Construction Completed: July 2012.



Thank you.

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