



Carmel River Floodplain Restoration and Environmental Enhancement Project (Carmel River FREE Project)



Monterey Peninsula Water Management District

September 21, 2015



South bank levees constructed for
Odello artichoke fields prior to 1930

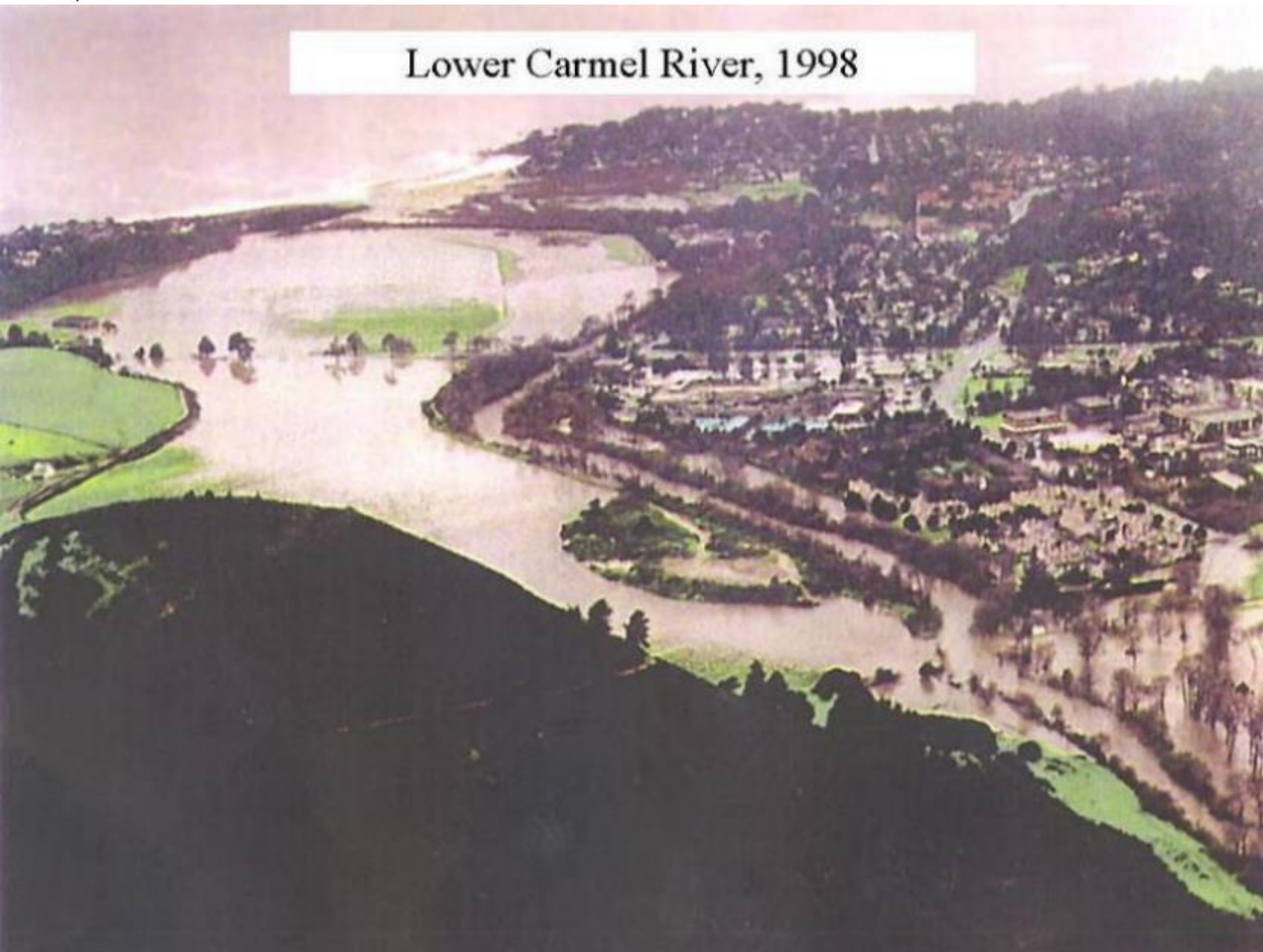


1956

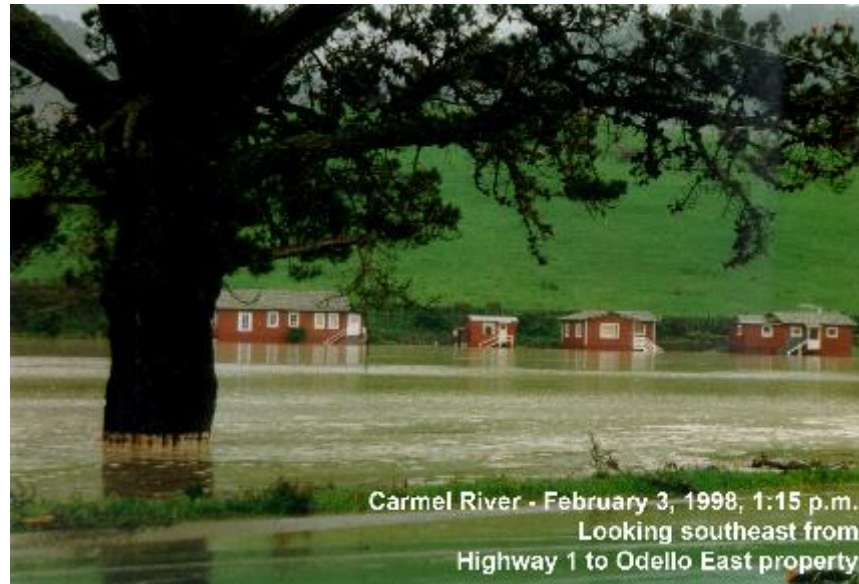


1972

Lower Carmel River, 1998

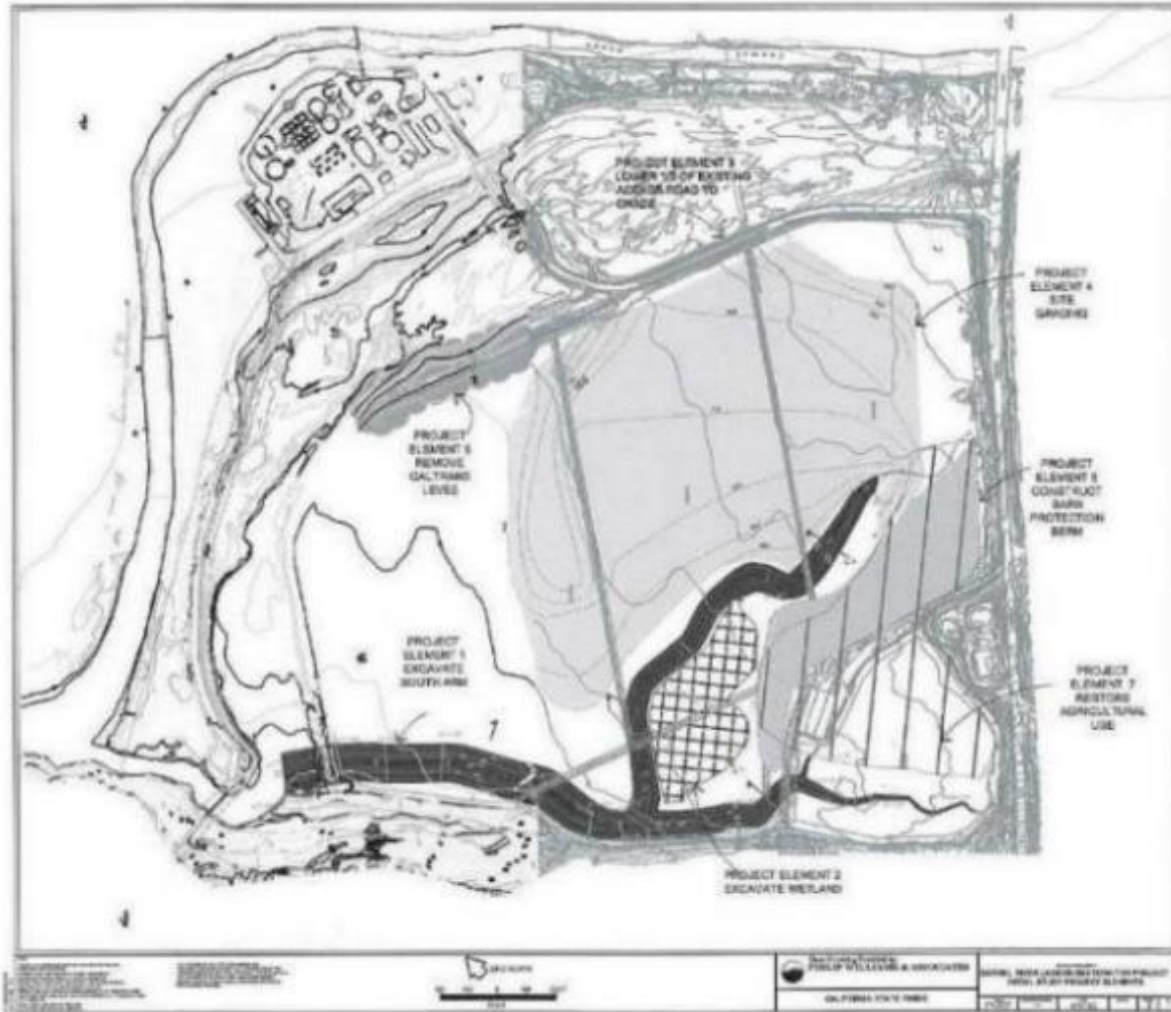


Carmel River - February 3, 1998, 1:15 p.m.
Looking south along Highway 1



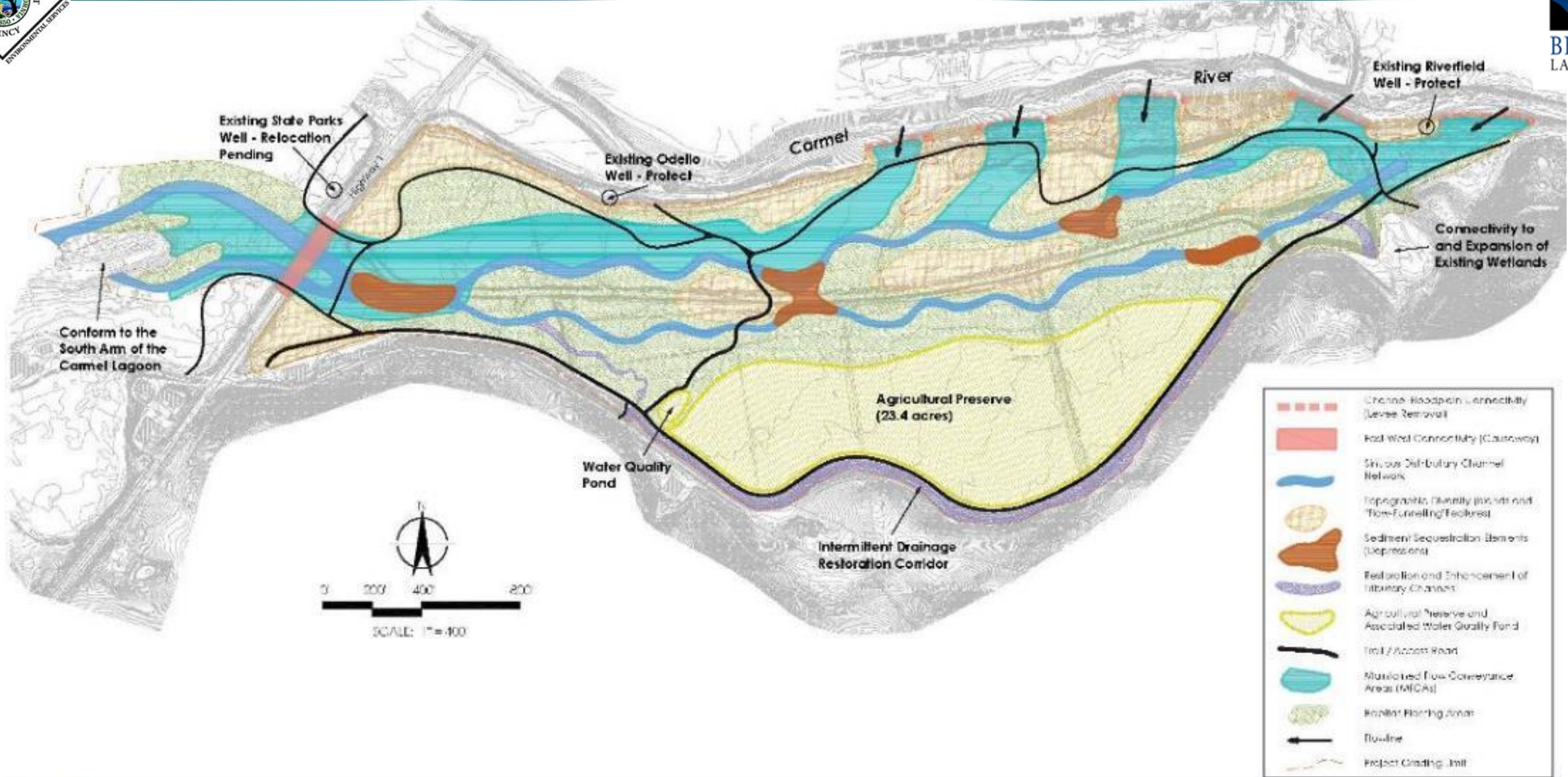
Carmel River - February 3, 1998, 1:15 p.m.
Looking southeast from
Highway 1 to Odello East property

Carmel River Lagoon/Odello West was first phase of Lower Carmel River Restoration

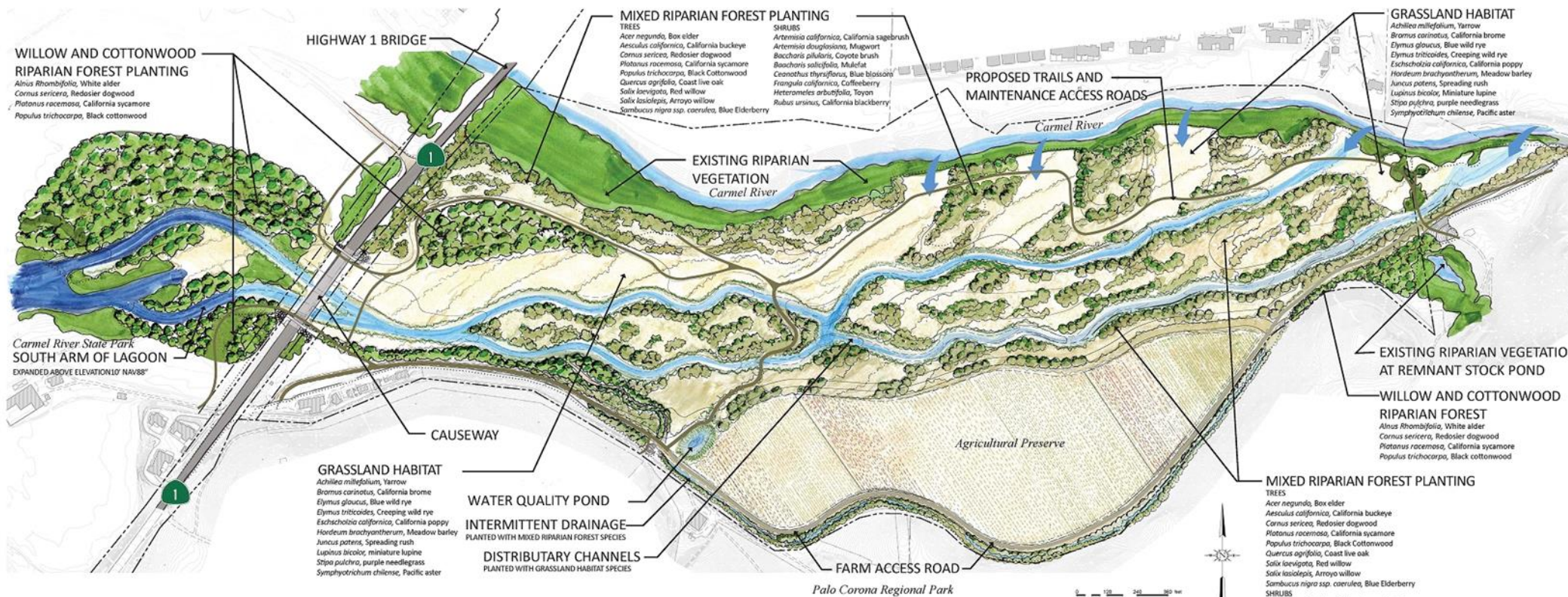


Carmel River Lagoon Restoration Project
Figure 5 - Project Element Locations

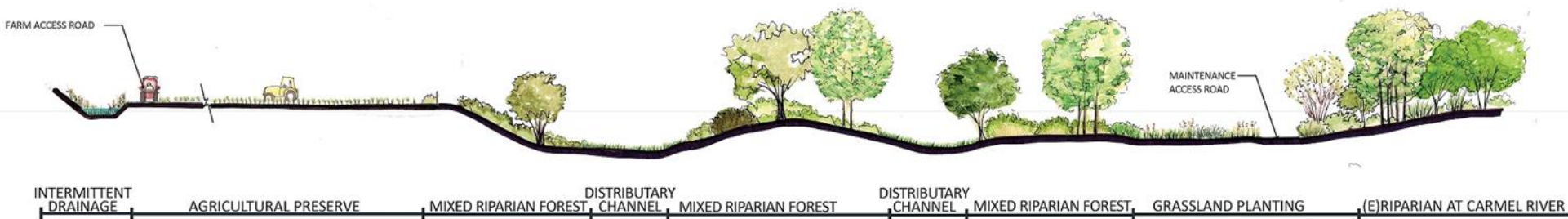




- Channel-Hoodplain Connectivity (Levee Removal)
- Rest Wetland Connectivity (Causeway)
- Shrubs Distributary Channel Network
- Topographic, Fluvial points and 'Flow-Funnelling' Features
- Sediment Sequestration Elements (Depressions)
- Restoration and Enhancement of Tributary Channels
- Agricultural Preserve and Associated Water Quality Pond
- Trail / Access Road
- Maintained Flow Conveyance Area (MFCAs)
- Project Grading Area
- Flowline
- Project Grading: Mill



CONCEPTUAL FLOODPLAIN RESTORATION AND REVEGETATION PLAN VIEW



PROJECT PARTNERS:
 Big Sur Land Trust
 Monterey County RMA

DESIGN TEAM:
 Whitson Engineers
 Balance Hydrologics
 H.T. Harvey & Associates
 Cornerstone Structural Engineering Group
 Kleinfelder
 Avila & Associates
 Conservation Collaborative



CARMEL RIVER FLOODPLAIN RESTORATION & ENVIRONMENTAL ENHANCEMENT PROJECT
 Monterey County, California
 May 22, 2015

State and Federal Investments in the Watershed

- Highway One Bridge Replacement \$4M
- Palo Corona Land Acquisition \$32M
- Lower River Restoration Planning \$500K
- Carmel River Floodplain Restoration and Environmental Enhancement Project \$14M
- San Clemente Dam Removal \$84M
- Carmel Lagoon Restoration \$4M
- Carmel River Parkway \$7M
- **Total Investment = \$145.5 M**

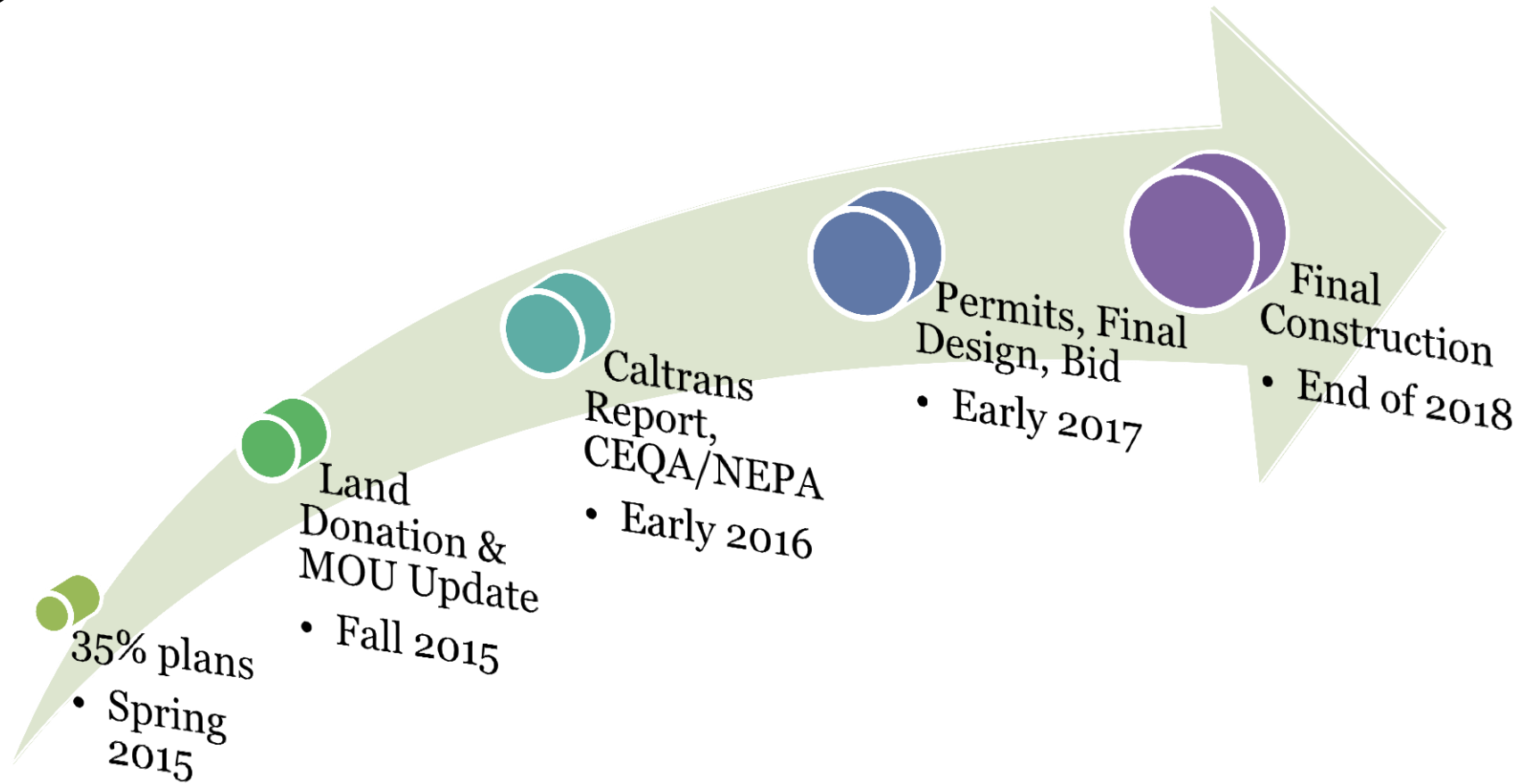




Carmel River FREE Project - Funding

- Project costs, including pre-construction costs -\$24M
- Over \$14M in funding secured
- **Approximately \$10M funding gap**
- Additional grant applications in 2015/early 2016
 - NOAA NMFS Coastal Resiliency
 - FEMA Pre-Disaster Mitigation
 - CDFW Prop 1 Watershed Restoration (planning grant)
- Prop 1 implementation grants in fall 2016
- Current Funders:
 - Coastal Conservancy, \$2,750,000
 - US Fish & Wildlife Service, \$925,000
 - US Environmental Protection Agency, \$740,800
 - California Wildlife Conservation Board, \$2,500,000
 - California Department of Water Resources, \$6,000,000
 - Caltrans, \$1,000,000
 - Big Sur Land Trust, \$300,000 (to date) & County of Monterey, \$65,000 (to date) + in-kind staff time contributions

Timeline





Questions?

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