



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



Why is the Carmel River FREE Project proposed?

In 1995 and 1998 the developed areas near the Carmel River experienced devastating floods that damaged both residential and commercial properties and washed away the Highway One Bridge, cutting the areas south of the Carmel River like Carmel Highlands and Big Sur off from transportation access for several months. The Carmel River FREE project provides an environmentally preferable solution to improving levees and flood walls along sensitive portions of the lower Carmel River.

The project also expands on the neighboring restoration projects completed on the west side of Highway One by Caltrans in 1997 (the “Caltrans mitigation site”) and by California State Parks in 2004 (the “Carmel River Lagoon Enhancement Project”). The CRFREE project would provide habitat connectivity and wildlife passage from these completed restoration projects on the west side of the highway, to an additional 90 acres of restored floodplain and riparian habitat on the east side of the highway.

What is the Carmel River FREE Project?

Floodplain Restoration & Levee Removal

- Remove approximately 1,470 linear feet of uncertified earthen levee on the south bank of the Carmel River along the existing agricultural fields east of State Route 1 and reconnect the river’s main stem with its historic floodplain
- Grade and re-contour approximately 100 acres of the historic floodplain to restore the site’s ecological function.
 - Floodplain restoration elements include creation of two braided off-stream channels, sediment sequestration depressions, and island topographic features
- Elevate approximately 23 acres of existing farmland above the 100-year floodplain using material graded from the floodplain area and retaining all soils on the site
- Restore, maintain and monitor over 90 acres of native riparian and grassland habitats across the site

Causeway Bridge on State Route 1 to connect the floodplain from east to west:

- Replace a portion of the elevated SR 1 roadway embankment with a 360-foot long causeway in order to:
 - Allow floodwaters to flow into and through the floodplain without overtopping the highway
 - Restore hydrologic and habitat connectivity between the east and west sides of SR 1 and the south arm of Carmel Lagoon

What are the benefits of the Carmel River FREE Project?

- *Floodplain Connectivity* – recreate hydrologic connections between the Carmel River main channel to southern floodplain, as well as from the floodplain east of Hwy 1 to the Carmel Lagoon’s restored south arm on the west
- *Restore Habitat* – over 90 acres of riparian and wetland habitats, while retaining 23-acre agricultural preserve
- *Increase Carmel River Flows* – recharge groundwater and base flows to the Carmel River and Lagoon
- *Improve Water Quality in Lagoon and Carmel Bay* – sediment deposition and nutrient removal, periodic flushing
- *Reduce Flood Risks* – urban areas, including 68 repetitive loss properties, protection of Highway 1 and bridge
- *Cost Savings* – \$14M of avoided flood control improvements needed to protect developed areas on the north bank of the Carmel River. If the Carmel River FREE project does not happen, extensive reconstruction of the existing levees would be needed to meet FEMA standards.
- *Public Access* –trail connections between Carmel River State Beach and Palo Corona Regional Park



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What is the status of Carmel River FREE Project?

- *Engineering and Design*
 - 35% design plans and technical supporting documents completed in spring 2015
 - 60% plans to be completed by summer 2016
 - Final 100% design in 2017, following CEQA/NEPA and permit approvals
 - Caltrans review of the draft "Project Report" for the causeway underway
- *CEQA/NEPA Environmental Review*
 - U.S. Fish and Wildlife Service is lead agency for the NEPA document, with Caltrans reviewing and approving NEPA analysis of the State Route 1 improvements
 - Monterey County is the lead CEQA agency
 - Combined Draft CEQA/NEPA document currently under administrative review
 - Public review planned to occur in summer of 2016
- *Construction* – Current schedule to go out to bid in 2017, with construction early 2018 – mid 2019
- *Cost Estimate* –\$24M, including design, environmental, permits and construction (35% design cost estimate)
- *Funding*
 - Over \$14,000,000 in grant funds secured
 - Approximate \$10,000,000 construction funding gap
 - All construction funding must be secured before project goes out to bid (2017)

What funding has been raised for the Carmel River FREE Project so far?

- US Fish & Wildlife Service, \$925,000
- US Environmental Protection Agency, \$620,000
- California State Coastal Conservancy, \$2,750,000
- California Wildlife Conservation Board, \$2,500,000
- California Department of Water Resources, \$6,000,000
- California Department of Transportation (Caltrans), \$1,000,000
- Big Sur Land Trust, \$325,000 + staff time (2007 to present)
- County of Monterey, \$65,000 + staff time (FY 15/16)

Who are the Carmel River FREE Project partners and stakeholders?

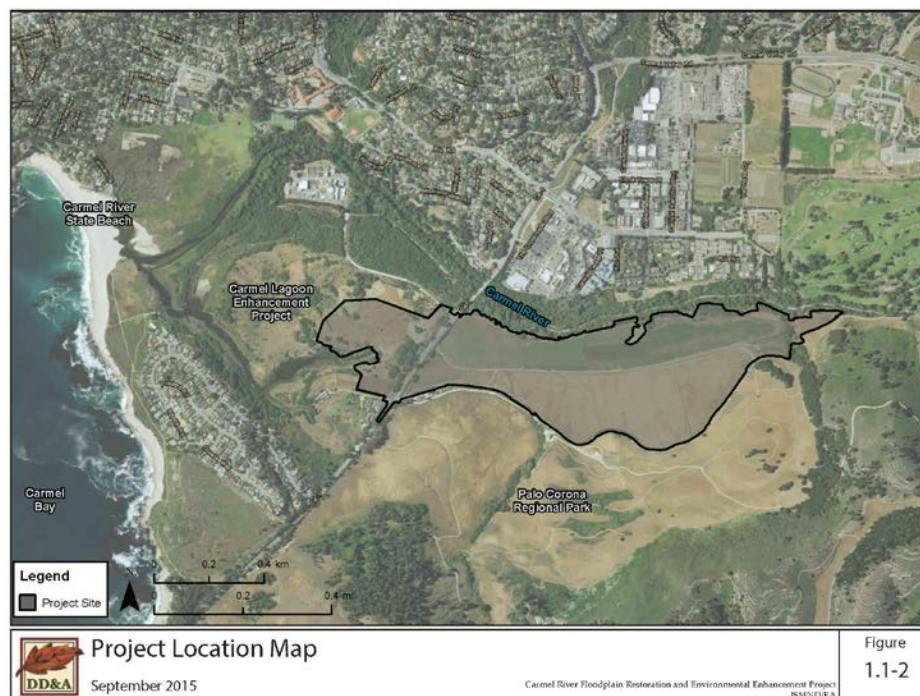
- *Monterey County Resource Management Agency* (County) and the *Big Sur Land Trust* are the project proponents
- County and *Caltrans* are in a Cooperative Agreement naming Monterey County as the Project Sponsor of the causeway component
- *California State Parks* (Carmel River State Beach) and the *Monterey Peninsula Regional Park District* (Palo Corona Regional Park) are contributing portions of project site area
- *Clinton and Margaret Eastwood* are donating 82 acres of the project site to the Big Sur Land Trust, in addition to 49 acres of land already donated to BSLT in 1997
- Project funders, identified above
- Numerous federal, state, and local agencies have permitting authority over the project
- Several local non-profit and community groups actively involved with Carmel River watershed restoration
- Residential and commercial property owners of *County Service Area 50*, the local flood control district, will directly benefit from the flood control improvements that will result to this developed area to the north



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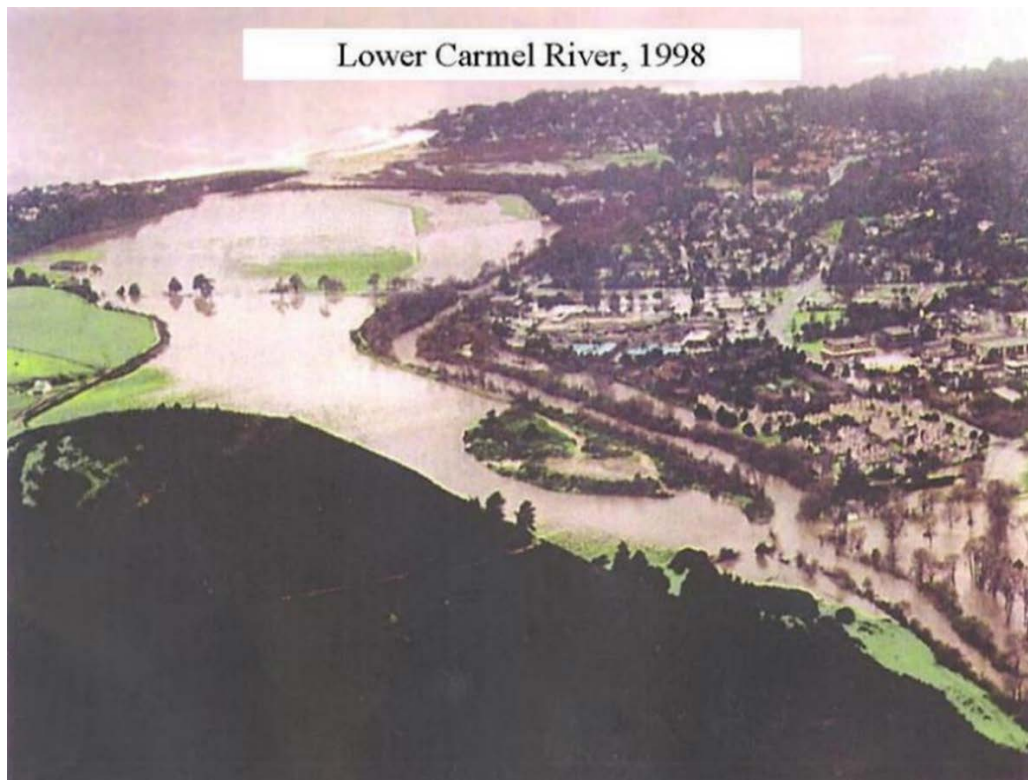


Project vicinity (view of Carmel Bay across to project site)

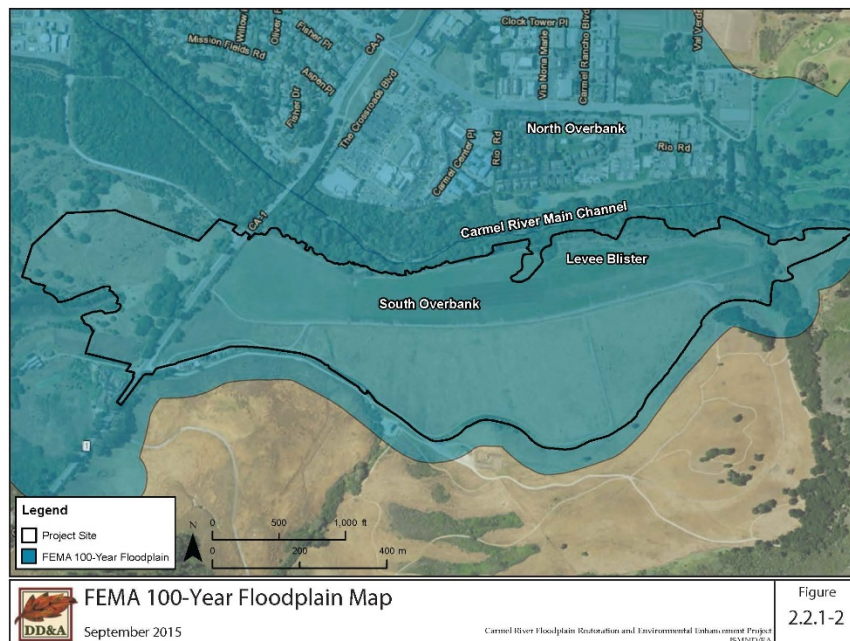




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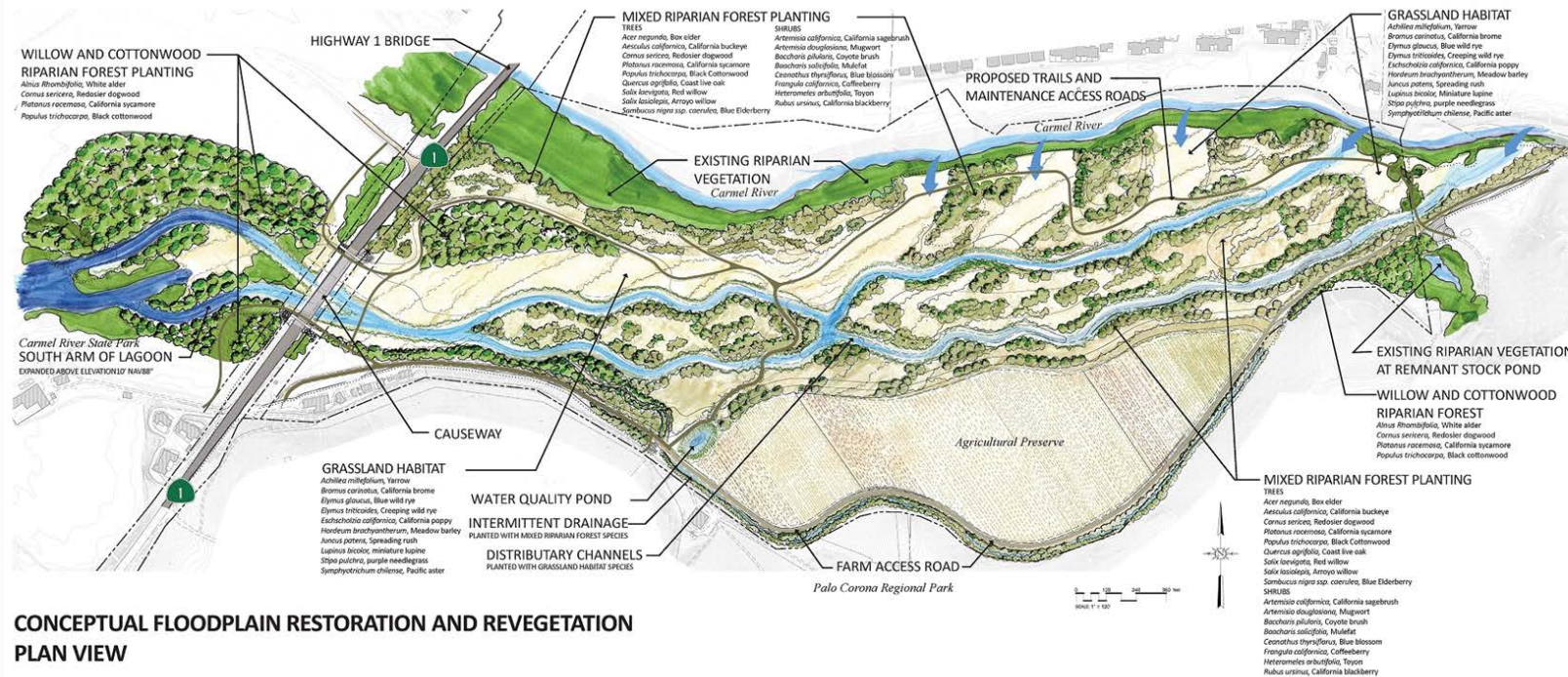


Project site during 1998 El Niño flood event

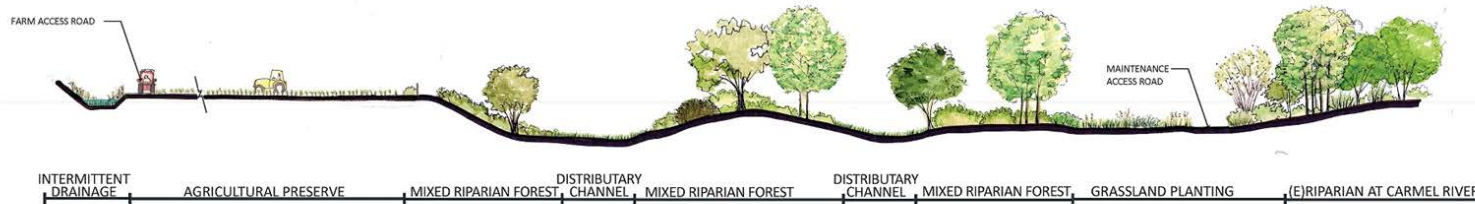




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CONCEPTUAL FLOODPLAIN RESTORATION AND REVEGETATION
PLAN VIEW



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