

BSLT Direct Subaward Project – Carmel River Floodplain Restoration and Environmental Enhancement (CRFREE) Project

Multi-benefit, green infrastructure project which will restore hydrologic connectivity of the lower Carmel River, its southern floodplain, and Carmel River Lagoon to address long standing flooding issues and floodplain habitat loss

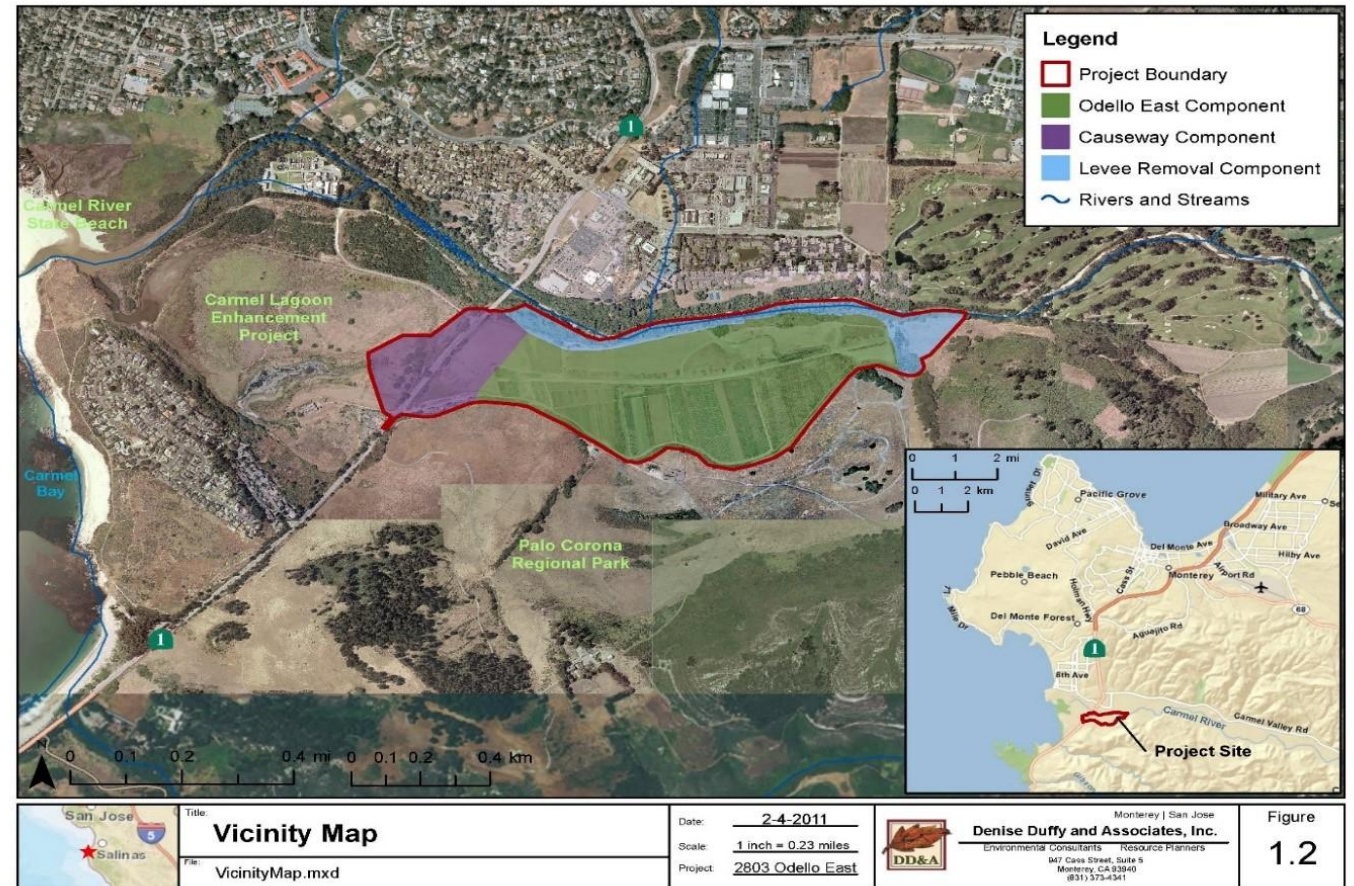
Location: Carmel, CA

Overall Period of Performance:

January 1, 2025 – June 30, 2029

NOAA Funds: \$1,205,686

Total Leveraged Funds: \$1,132,550



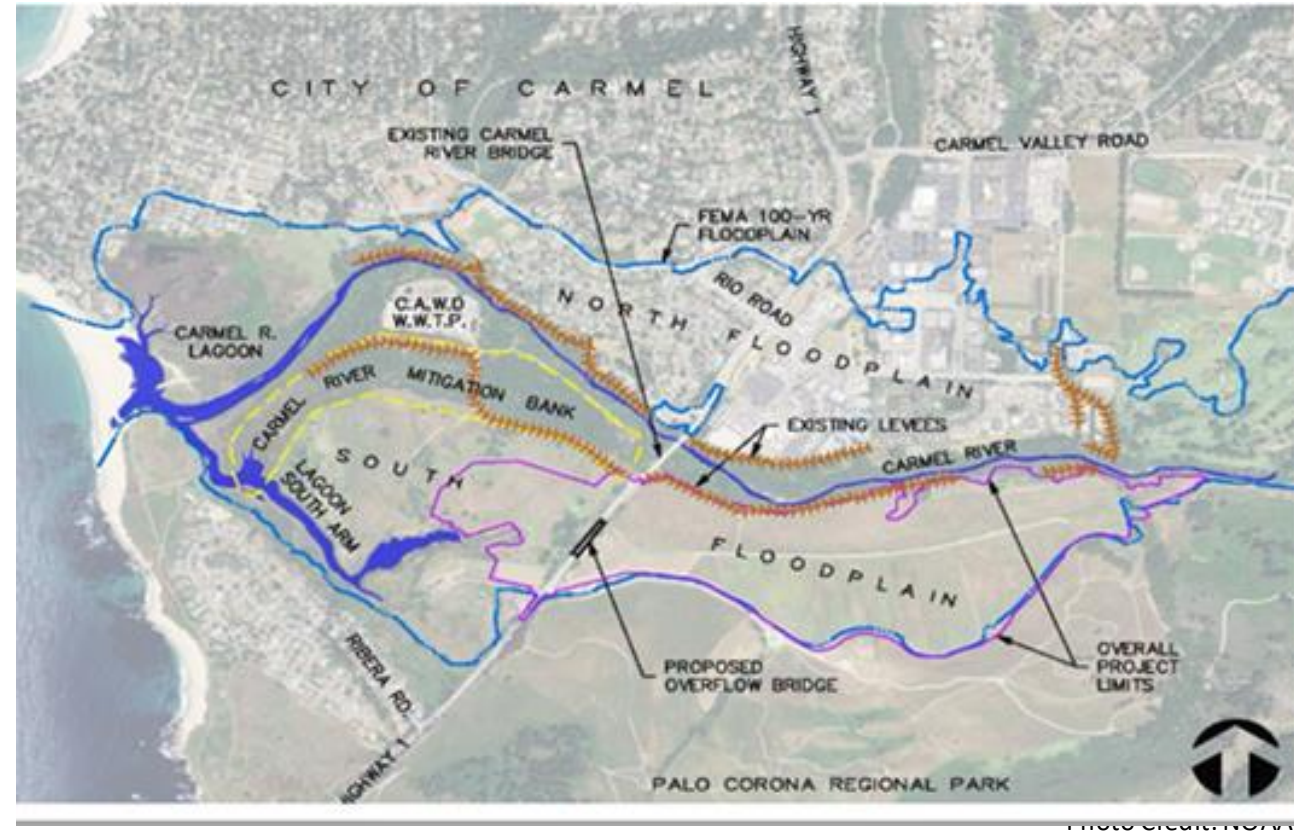
CRFREE Project Background

- The Carmel Watershed encompasses 255 square miles, draining into the Carmel River, which flows 31 miles west from its headwaters in the Santa Lucia mountains and empties into Carmel Bay
- Hydrologic connectivity of the Carmel River Watershed was restricted in the 1930's when a series of earthen levees were constructed along the river at the Project Site to protect agricultural fields from flooding
- Further fragmentation occurred during the construction of Highway 1 which is routed through a portion of the Project Site on an elevated roadbed
- The Carmel River has been subject to 20 flooding events since the 1900's, which the worst flooding events occurring in 1995 and 1998



CRFREE Objectives and Outcomes

- Address problems of flood management and floodplain habitat loss
- Reduce flood elevations on the north side of the river for both commercial and residential structures
- Direct heavy flows away from developed areas to the north into a restored floodplain to the south, and then through a new causeway (overflow bridge) on Highway SR-1 to the Carmel Lagoon
- Reconnect approximately 102 acres of historic floodplain, restoring significant acreage of floodplain, riparian, and scrub habitats while also reconnecting to the lagoon



CRFREE Scope of Work- Zoned Revegetation & Management

- **Stabilizing the Floodplain:**
 - Links several key flood risk reduction components together (e.g. floodwater buffer, GW recharge, enhanced water quality, etc.)
- **Revegetation Effort (7.4 acres)**
 - Three plant communities: Willow and cottonwood riparian forest (2.0 acres), Mixed riparian woodland (4.5 acres), Coastal sage scrub (0.9 acres)
 - Pilot for depth-to-groundwater conditions & planting techniques (direct seed/cutting planting vs. container stock)
- **Vegetation Management (35 acres)**
 - Invasive species control and ongoing adaptive management
- **Cultural Significance**
 - Connects historical cultural use with habitat restoration – potential for future ceremonial use and education



CRFREE Timeline

Task	Activity Description/milestones	2025	2026	2027	2028	2029
Project Administration & Management						
1	Project coordination, reporting, admin., etc					
Initial Installation – Zone 1 (7.42 acres)						
2	Native Plant Collection & Propagation					
3	Irrigation Installation					
4	Plant Installation (including caging, Tubex, mulching/coir mats)					
Establishment Maintenance – Zone 1 (7.42 acres) – 3 Years						
5	Establishment Maintenance - Zone 1 (7.42 acres)					
Monitoring and Reporting – Zone 1 (7.42 acres) – 3 Years						
6	Annual Vegetation Monitoring and Reporting					
Interim Vegetation Management & Weed Control (35.48 acres) – 3 Years						
7	Site-wide Interim Vegetation Management and Weed Control					