

EXHIBIT 1-B

Project 9 Implementation Plan

Project 9 - Feasibility of Scenic Road Protection and Preservation with Proposed Carmel River Lagoon Ecosystem Protective Barrier

Background

The purpose of this project is to carry out a planning and feasibility study for protection and preservation of Scenic Road as it pertains to the installation of the proposed Carmel River Lagoon Ecosystem Protective Barrier (EPB), near the California State Parks Carmel River Lagoon and Wetlands Natural Reserve in Monterey County (Figure A).

The Carmel River Lagoon (Lagoon) forms a seasonally brackish lagoon environment above sea level at the mouth of the Carmel River, and tidal forces frequently build the barrier beach up across the mouth to a level that is higher than some of the surrounding homes and infrastructure. When the Lagoon rises from wave overwash or Carmel River inflow, the beach must be breached mechanically in order to lower the water level. These actions result in a loss of aquatic habitat and undesirable consequences to fish and wildlife. Installation of an EPB along the northern portion of the lagoon could allow the Lagoon to rise to a higher level on more frequent occasions while reducing the potential for flooding of low-lying structures. Research of the barrier beach by the Monterey Peninsula Water Management District indicates that without mechanical breaches to control the location of the lagoon outlet, the river tends to meander across the beach in response to the changing river flows, tides and swell environment. When the river flows out to the north, the combination of river flow and ocean waves can erode the sand dune material supporting Scenic Road. Scenic Road provides local access for homeowners and is an important link in maintaining public access to coastal resources.

- An EPB could reduce the potential for flooding due to high Carmel River flows, and would allow the Lagoon to double in volume and could result in an overall increase in water quantity and quality throughout the dry season.
- The rest of the EPB analysis is being completed with funds from California American Water customers in the Monterey Peninsula region and with in-kind services from local agencies and non-profit groups, with funds administered through the Wildlife Conservation Board (WCB). The WCB grant funds and local in-kind services *do not* include an investigation of methods to protect Scenic Road from erosion and tie in to the barrier project proposed for the north side of the lagoon.
- Funds from the Department of Water Resources provided through the Prop. 84 Integrated Regional Water Management grant program will allow the EPB feasibility analysis to be expanded to investigate the feasibility of tying the EPB into a project that will preserve the bluff underlying Scenic Road and prevent further damage from high ocean swells and/or river flows adjacent to Scenic Road.

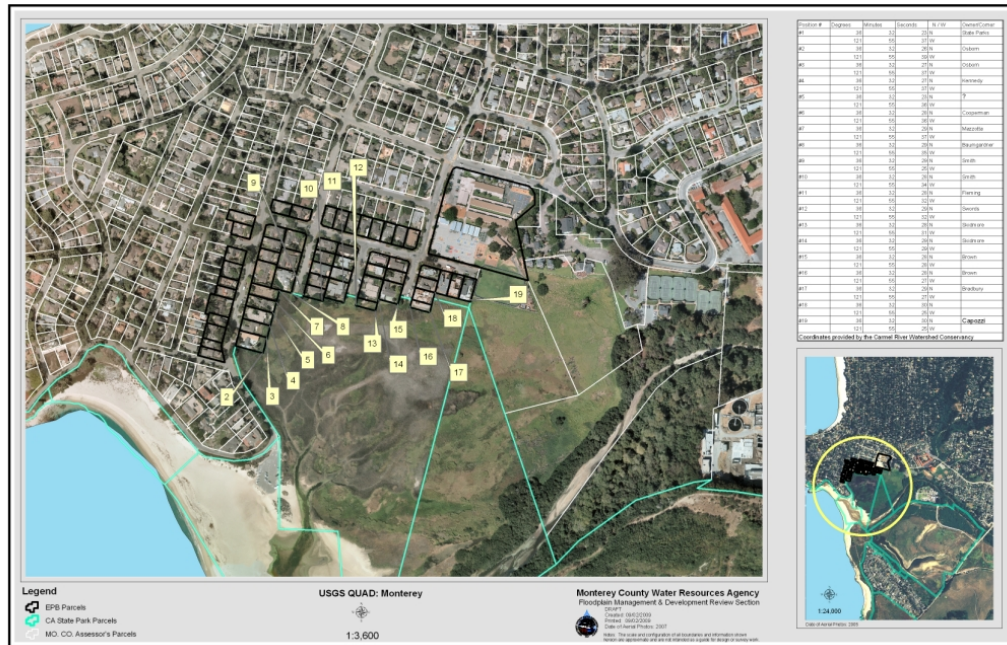


Figure A. Location Maps. Above: general location; below: parcels affected by flooding.

Work Plan

Task 1: Data Review

Review existing literature including studies of the topography, bathymetry, geotechnical investigations, and historical changes of the bluff and beach along Scenic Road between the Carmel River State Beach parking lot and the intersection of Ocean View Avenue with Scenic Road (along the area known as Stewart's Cove). If historical data are available, summarize data on the changes in height and width of the beach area along Scenic Road within the Stewart's Cove area.

Task 1 Deliverables: Summary of Data Review

Task 2: Survey Data Augmentation (if necessary)

If necessary, survey data of the Scenic Road profile for the section of Scenic Road described in Task 1 shall be obtained. Data density should be sufficient to show the width of the road and changes in grade along the edge closest to the ocean. If current survey data of the adjacent beach has not already been obtained (i.e., from summer 2011 or later), obtain cross-sections along the road at 100-foot intervals. Cross-sections are to show the road elevation within the Monterey County right-of-way (i.e., right edge, center and left edge) and are to extend to the mean low tide elevation.

Task 2 Deliverables: Survey data (NAVD 1988) point files, topographic base map, plots of cross-sections and profile.

Task 3: Geotechnical Analyses (additional data will be acquired, if necessary)

If insufficient geotechnical information is available along Scenic Road between the limits described in Task 1, obtain geotechnical information that will provide information on the subsurface profile under and immediately adjacent to the road. This could include borings and/or geophysical survey work using ground-penetrating radar and/or seismic refraction analysis. The method to be used will be determined after a review of existing geotechnical, topographic, and bathymetric information is completed.

Task 3 Deliverables: Results and summary report of geotechnical investigation including data acquired during the investigation (such as boring logs, laboratory analysis, or other data).

Task 4: Planning-Level Schematic and Planning-Level Cost Estimate

Determine what options may be available to protect Scenic Road from erosion during large ocean swell events or during periods when the Carmel River flows out to the north along Scenic Road.

Task 4 Deliverables: Technical Memorandum describing options for protecting Scenic Road. The TM is to include a planning level schematic showing options for protecting Scenic Road and an initial estimate of the cost for reach option.

Task 5: Description of Scenic Road Protection and Preservation with the Proposed EPB

Using information from Tasks 1-4, and information from the proposed Carmel River Lagoon Ecosystem Protective Barrier (EPB) study, recommend where improvements along Scenic Road should start and finish. If protection along Scenic Road is proposed to extend into the parking lot on State Parks land along the Carmel River State Beach, describe how the protection will be tied into the barrier proposed along the north side of the lagoon.

Task 5 Deliverables: Report or Technical Memorandum describing recommended Scenic Road improvements.

PROJECT SCHEDULE

	Task Name	Duration	Start	Finish	Milestone
p9	Project 9 - Feasibility of Scenic Road Protection and Preservation with Proposed Carmel River Lagoon Ecosystem Protective Barrier	487	12/1/2011	4/1/2013	
Task 1	Data Review				4/1/2013
Task 2	Survey Data Augmentation				7/1/2012
Task 3	Geotechnical Analyses				2/1/2013
Task 4	Planning-Level Schematic and Planning-Level Cost Estimate				4/1/2013
Task 5	Description of Scenic Road Protection and Preservation with the Proposed EPB				4/1/2013

PROJECT BUDGET

Budget Description	Funding Match	Grant Funding	Other State Funds Used	Estimated DAC Costs from DWR Grant	Total	% Match
Project 9 - Carmel River Lagoon Ecosystem Protective Barrier Planning and Feasibility		\$54,200			\$54,200	0%
Task 1: Data Review	\$5,000				\$5,000	
Task 2: Survey Data Augmentation (if required)	\$10,000				\$10,000	
Task 3: Geotechnical Analyses	\$20,000				\$20,000	
Task 4: Planning-Level Schematic and Planning-Level Cost Estimate	\$14,200				\$14,200	
Task 5: Description of Scenic Road Protection and Preservation with Proposed EPB	\$5,000				\$5,000	