



County of Monterey

Board of Supervisors
Chambers
168 W. Alisal St., 1st Floor
Salinas, CA 93901

Board Report

File #: 13-0651, **Version:** 1

Consider a Feasibility Study for flood prevention and habitat protection projects within the Carmel Lagoon and adopt a Resolution:

- a. Selecting Ecosystem Protective Barrier (EPB) - Alternative 2A with a top of wall elevation at 17.5 feet as the preferred alternative for purposes of evaluation and environmental assessment;
- b. Selecting Scenic Road Protection Structure (SRPS) - Alternative 1 as the preferred alternative for purposes of evaluation and environmental assessment; and
- c. Directing staff to prepare necessary environmental assessments of the preferred alternatives for pending applications for permits from regulatory agencies with permit authority.

RECOMMENDATION:

It is recommended that the Board of Supervisors:

Adopt a Resolution selecting preferred alternatives for the Ecosystem Protective Barrier (EPB) and Scenic Road Protection Structure (SRPS) projects for purposes of preparing environmental assessment of the preferred alternatives for pending permit applications from regulatory agencies with permit authority (**Exhibit B**).

SUMMARY:

Conceptual plans and draft technical studies have been completed for two projects that would help address flood prevention and habitat protection at the Carmel Lagoon (**Exhibit C**). The objective is to present alternatives to the BOS in order to establish a preferred option for each project that will be used for environmental assessment and permit applications.

Considering all of the components and regulatory requirements, staff recommends the Board select the following as preferred alternatives:

- Ecosystem Protective Barrier (EPB)-Alternative 2A (50-foot set back) with a top of wall elevation of 17.5 feet. Staff finds that this option provides adequate protection of homes while minimizing ecological and visual impacts. This alternative would result in smaller pumps with less frequent pumping because of greater area that serves as a bioswale.
- Scenic Road Protection Structure (SRPS)-Alternative 1 (riprap). Staff finds that rip rap provides the most natural material and the structure would be covered with sand when the beach is not breached. The alignment allows continued use of the beach area located north of the barrier when (if) the beach breaches to the north.

Carmel River Beach and Lagoon property are owned by State Parks; therefore, the ability to complete these projects is contingent on an agreement with State Parks for construction access, use and/or relinquishment of their property. In addition, activity to manage the Carmel Lagoon requires permits from US Army Corps of Engineers (USACE), California Fish and Wildlife (CF&W), California Coastal Commission (CCC), and Regional Water Quality Control Board (RWQCB).

DISCUSSION:

For decades, the Monterey County Water Resources Agency (MCWRA), State Parks, and County Resource Management Agency (RMA) -Public Works have actively managed the Carmel River/Lagoon to protect homes and infrastructure from flooding impacts. Actions to manage the sandbar barrier have occurred annually, and in

many cases multiple times per year, as a declared emergency without permits.

Beginning in 2011, County-RMA assumed a lead role to obtain necessary permits and work with agencies on a long-term solution to mechanically managing the sandbar barrier at the Carmel River/Lagoon. On June 11, 2013, the Board considered a memorandum of understanding (MOU) with USACE and National Marine Fisheries Service (NMFS) that identifies the need to develop a long-term solution to annual mechanical breaching. Two projects, Ecosystem Protective Barrier and Scenic Road Protection, have been identified as alternatives to performing sandbar management.

A team of engineers led by Whitson Engineers is under contract with MCWRA and County to complete a planning and feasibility study on the Ecosystem Protective Barrier (EPB) and Scenic Road Protection Structure (SRPS) projects (**Exhibit C**). Comments received from the public relative to the proposed alternatives are included with the study.

There are a number of options, including multiple variations of said options that the Board may consider:

- Ecosystem Protective Barrier. The feasibility study evaluated a range using three alignments (15-foot, 50-foot, Mission Ranch) representing five alternatives. These alternatives were evaluated using a range in height from the 16-foot elevation to the 19-foot elevation. Increasing the height above the 18-foot elevation increases the length of the barrier, which increases construction cost. Any increase in height above the 16-foot elevation reduces the frequency of managing the sandbar, which reduces maintenance cost. Reducing the storage area (set back from homes) requires larger pumps run more often to maintain water levels on the urban side of the barrier, which increase costs.
- Scenic Road Protection Structure. The feasibility study evaluated four different alignments and designs ranging from riprap located at the toe of slope (SRPS 1) to a pile wall located at the top of slope (edge of ROW). All of the alternatives include riprap at the east end around the State Parks parking lot and restroom facility.
- Other. Options, such as no project, that have been discussed over the past decade are listed in **Exhibit A**. These other options were discounted for various reasons, and therefore, were not part of the feasibility study. However, they are options that the Board may consider.

See **Exhibit A** for further Discussion.

OTHER AGENCY INVOLVEMENT:

RMA has assumed a lead role to coordinate with the regulatory agencies (USACE, CF&W, CCC, and RWQCB), regulatory consulting agencies (NMFS, US Fish & Wildlife), land owner (State Parks) and local agencies (Monterey Peninsula Water Management District, MCWRA) to preview alternative plans and explain the rationale behind them. The EPB abuts the eastern portion of Community Service Area (CSA) 1 and has potential flood implications to CSA-50, so staff presented the proposed projects to these citizen advisory groups relative to their areas.

FINANCING:

Required staff efforts for RMA administrative activities related to Carmel Lagoon matters (e.g. MOU) are part of the work program included in the approved budget for the RMA Admin Unit 8222, RMA013. Annual costs to manage (physically) the Lagoon and protect homes from flooding range from \$200,000 to \$500,000 per year, and these emergency costs are ultimately reimbursed by the General Fund. The feasibility study has been funded by two grants: \$145,000 from the Carmel River Watershed Conservancy (through the Wildlife

Conservation Board) to the Monterey County Water Resources Agency; and \$54,000 from Monterey Peninsula Water Management District (as part of a larger Integrated Regional Watershed Management Planning (IRWMP) grant it received through the Department of Water Resources) to the County through the Resource Management Agency. On April 23, 2013, the Board approved a Professional Services Agreement with Denise Duffy & Associates for up to \$353,100 to assist with environmental documents using unexpended funds appropriated in Other Financing Uses (1050-8038) in the County Administrative Office budget.

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Attachments:

Exhibit A Discussion

Exhibit B Resolution

Exhibit C Feasibility Study - distributed to BOS under separate cover

A cd of the Feasibility Study is available for review at the Clerk of the Board, and also via the following webpage link:

http://www.co.monterey.ca.us/planning/major/EPB%20and%20Scenic%20Road%20Protection/EPB_SRP.htm

cc: Front Counter Copy; County Counsel; Nick Chiulos; RMA-Planning; RMA-Public Works; Economic Development; County Parks