



Staff Report

TO: Board of Harbor Commissioners

FROM: John Moren, Director of Operations

DATE: September 7, 2016

SUBJECT: Pillar Point Harbor West Trail Erosion Protection Design Alternatives, presented by

Recommendation/Motion:

GHD, Inc.(GHD) presentation providing direction to staff regarding the long term options to successfully protect the West “Mavericks” Trail from erosion. Introduce results from the Sea Level Rise/Erosion Study and the Drainage (Hydrology) Study.

Policy Implications:

Consistent with ongoing policy efforts to provide long term stability, functionality and safe public use of the West Trail while protecting natural resources.

Fiscal Implications/Budget Status:

On April 4, 2016 this Commission approved a contract with GHD for an amount not-to-exceed \$184,086.00 for engineering and environmental compliance assistance with the repair of the damaged trail areas, confirmation of drainage conditions inland of the West Trail culvert, and to prepare and submit a Coastal Development Permit (CDP) application packet, pursuant to the conditions of the ECDP issued for the culvert repair. The not-to-exceed amount was not guaranteed and was based on actual services provided. As of this date \$31,617.00 has been invoiced for work completed. There is no budget impact.

Background:

Initially, in 2012 GHD developed a Draft Condition Survey Report which identified eroded areas along the West Trail.

In 2014 GHD was contracted to provide environmental services, prepare construction documents (plans, specifications, and estimate), and provide bidding and construction support services for the culvert and West Trail Project. While certain elements of this project were completed, the entire project was not finalized, as this Commission, in response to Coastal Commission actions, diverted efforts to an emergency repair of the West Trail at the drainage outlet culvert. This culvert under the West Trail was eroded to the point of rendering the trail unsafe for public use. The California Coastal Commission provided the San Mateo County Harbor District (SMCHD) with an Emergency Coastal Development Permit (ECPD) for the Emergency West Trail Repairs on July 28, 2015. This was a temporary repair approval with the understanding that the SMCHD would act to develop a plan to design a long term method to protect the entire shoreline of the West Trail.

In March of 2016, after the emergency culvert repair was complete, GHD was asked to provide consulting services to prepare Erosion Protection Alternatives, a Sea Level Rise/Erosion Study, Landside Drainage Study, prepare and submit Coastal Development Permit application and an Agency Scoping Memorandum.

The next milestone is submittal of the final CDP application, with supporting documents, as required by the ECPD. This includes an Alternatives Analysis considering structural and bioengineering (i.e., "soft") solutions to diminish wave energy, impacts from varying tides, and heavy rain events. Alternatives considered consist of sheet pile walls, soil nail walls, retaining structures (e.g., stone rip rap, pre-cast concrete shoreline protection), planted areas, and/or a combination of soft and hard alternatives.

Subsequent to this, and should this Commission desire, staff will move forward with planning for stabilization of the entire section of the trail in question.

Summary/Recommendation:

Based on analysis and studies provided by GHD, input from the California Coastal Commission, stakeholders and the San Mateo County Harbor District Board of Commissioners a decision will be made as to which alternative best meets the District's goal of providing the least environmental damaging feasible method to protect the shoreline and West Trail.

Attachments:

[GHD West Trail Erosion Protection \(Alternative Analysis\) Report](#)

[GHD West Trail Sea Level Rise and Erosion Study](#)

[GHD West Trail Drainage Study](#)

The following attachments were at the request of Commissioner Brennan

[GHD PPH Report \(DRAFT\)](#)

[MCC Letter \(Aug. 24, 2016\)](#)

[MCC Slide Presentation \(July 27, 2016\)](#)

[GHD Minutes from Design Charrette held at HMBYC](#)