



DATE: October 17, 2016

TO: Mayor and Members of the City Council

VIA: Kevin M. Miller, City Manager

FROM: Jeff Moneda, Public Works Director/City Engineer

SUBJECT: BASIS OF DESIGN OVERVIEW REPORT PREPARED BY SCHAAF & WHEELER CONSULTING CIVIL ENGINEERS FOR THE LEVEE PROTECTION PLANNING AND IMPROVEMENTS PROJECT (CIP 301-657)

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### RECOMMENDATION

It is recommended that by Minute Order, the City Council provide feedback, if any, and receive and file the Basis of Design Overview Report prepared by Schaaf & Wheeler Consulting Engineers dated October 2016.

### EXECUTIVE SUMMARY

Schaaf & Wheeler was tasked with performing the preliminary engineering design work, which included the preparation of the subject Basis of Design Overview Report. This report is being used to prepare the California Environmental Quality Act (CEQA) documents anticipated to be submitted for review in early 2017. The information contained in the report will be used when conducting public outreach efforts, as well as preparing the final design.

### BACKGROUND

At the regular meeting on September 8, 2015, the City Council adopted Resolution No. 2015-75, authorizing approval of Contract Amendment No. 1, in the amount of \$887,644, with Schaaf & Wheeler to perform services associated with the environmental regulatory permitting and preliminary design for the Levee Project's Basis of Design Overview Report. The draft Basis of Design Overview Report is now

complete.

## ANALYSIS

The Basis of Design Overview Report builds on the analysis of the levee improvement alternatives presented at the July 27, 2015 City Council meeting and provides preliminary design for improvements based on additional field investigation, topographical and boundary survey, preliminary geotechnical investigation performed, and detailed wave run-up calculations. The following 10 sub-reaches are identified based on points of interest and potential constraints of each segment limiting the type of improvement alternatives that can be constructed:

1. San Mateo City Limit to Mariners Point Golf
2. Mariners Point Golf to San Mateo Bridge
3. San Mateo Bridge Undercrossing
4. Werder Pier to Bowditch Middle School
5. Bowditch Middle School to PG&E Transmission Line near Foster City Boulevard
6. PG&E Transmission Line to Lagoon Intake Gates Structure
7. Lagoon Intake Gates Structure to Sea Cloud Park
8. Sea Cloud Park to Port Royal Park
9. Port Royal Park to O'Neill Slough Trail
10. O'Neill Slough Trail to San Mateo Tide Gates

In summary, the Basis of Design Overview Report outlines:

- Designated sub-reaches along the levee;
- Levee elevation deficiencies within each sub-reach;
- Preliminary geotechnical conditions within each sub-reach;
- Design constraints within each sub-reach;
- A design alternative analysis and recommended improvement type within each sub-reach;
- Preliminary structural design considerations;
- Sea level rise adaptation measures; and
- Preliminary cost estimates for basic flood protection and Bay Trail restoration.

Staff requests input on the subject draft Basis of Design Overview Report. Following the adoption of the Environmental Impact Report (anticipated in January 2017), direction from the City Council will be requested on the levee height required for design (anticipated in February 2017).

## FISCAL IMPACT

There is no fiscal impact with tonight's action on this item. However, there will be fiscal impacts associated with the determination of the levee height required (anticipated in February 2017).

Attachment:

- Basis of Design Overview Report