Pilot Surfers Beach Sand Replenishment Project

Project Background, and Update on Accomplishments to Date and Next Steps

Brad Damitz, Consultant to San Mateo County Harbor District
San Mateo County Harbor District Board of Commissioners – May 23, 2018
Aerial Photo of Pillar Point Harbor and Surfers Beach
Brief Project Background/Need for the project

– Construction of the East Breakwater at Pillar Point Harbor completed in 1961, resulted in increased erosion rates.

– In 2007, community members approached Harbor District requesting action be taken.

– In 2007 District formally requested that US Army Corps of Engineers (USACE) investigate erosion.
Project Background/Need for the project

–The USACE analysis determined that the bluffs along Surfers Beach eroded at an average rate of 1.64 feet per year between 1993 and 2012.

–The study also found that there is a significant accumulation of sand within Pillar Point Harbor.
Setting

USDA 1956

USGS 2010

CAP 111 Project Area

San Mateo County

El Granada

Princeton

Pillar Point Harbor

East Breakwater

West Breakwater

Half Moon Bay

Half Moon Bay

US Army Corps of Engineers
San Francisco District

BUILDING STRONG®
Project Background/Need for the project

- USACE has since determined that there is not a federal interest in pursuing a beach nourishment project.

- In lieu of federal funding, the Board of Harbor Commissioners voted, in late 2015, for the District to pursue a “Pilot Surfer’s Beach Replenishment Project”.

 ![Beach Images](image1.png)  ![Rocky Shore Images](image2.png)
Project Funding

– In February 2016, the District submitted a grant application to Division of Boating and Waterways for $800,000 to fund the Project implementation (construction and monitoring).

– In April 2016, the District submitted a funding request to California Ocean Protection Council (OPC) for a $75,000 Prop 84 grant to help pay for the Project Planning Phase.
Project Description

- The proposed project involves one-time placement of approximately 75,000 cubic yards of sand.

- It is a “Pilot” project meant to study benefits and impacts.

- Extensive biological and physical monitoring will be included.

- Planning is now underway.
Project Goal and Potential benefits:

-The overall goal is to address the accelerated coastal erosion rates as a result of the construction of the East Breakwater.

-The project will address impaired public access/recreational impacts and damages from coastal storms.

-Benefits include: preventing or mitigating beach erosion and sea cliff retreat; improving protection of Highway 1 and other structures; increasing quality and quantity of public access and recreation; reducing the need for coastal armoring, and improving biological habitat.
Project Planning Process

- Planning Phase includes the following components:
  – Stakeholder collaboration and public outreach process
  – Project design and engineering
  – Environmental review
  – Permitting and agency consultation
  – Biological and physical monitoring design/planning

- Planning Phase officially began in July 2017 and will continue until project implementation, which is expected Spring 2019.
Surfers Beach Pilot Sand Replenishment Project
Stakeholder Collaboration & Public Outreach

Accomplishments to Date on Project Planning:

✓ Extensive outreach about the project, including over 10 presentations about the project to a diverse set of audiences.

✓ Formed a Technical Advisory Group (TAG) to provide input on the Project design and engineering decisions.

✓ Held meetings with local municipalities and agencies to discuss the project.

✓ Identified potential partners and stakeholders/created stakeholder outreach lists.

✓ Established a project webpage: https://www.smharbor.com/surfers-beach-project
Surfers Beach Pilot Sand Replenishment Project
Stakeholder Collaboration & Public Outreach

Next Steps:

- Continue to provide presentations and updates as requested.

- Convene Technical Advisory Group for two project planning and design workshops.

- Continue involvement and providing updates at Climate Change Resilience meetings.

- Host two Surfers Beach project-dedicated public workshops.

- Distribute project updates and drafts to stakeholders as needed.

- Complete extensive public notification prior to project construction.
Surfers Beach Pilot Sand Replenishment Project
Project Design and Engineering

Accomplishments to Date on Project Planning:

✓ Received initial input from permitting agencies and local municipalities on project design considerations.

✓ Identified a list of potential design options for further evaluation.

✓ Developed Request For Proposals for all necessary engineering services.

✓ Initiated collaboration with USACE to initiate computer modelling of project design scenarios.
Surfers Beach Pilot Sand Replenishment Project
Project Design and Engineering

Next Steps:

- Review engineering proposals and award contract.*
- Work with engineer to complete initial assessment of project design options.
- Host Technical Advisory Group (TAG) meetings to assess design options/select a preferred alternative(s).
- Develop detailed *Project Design Plans and Permitting Figures.*
- Complete bid process and select contractor to complete project construction*. 

*Requires Board approval or input
Surfers Beach Pilot Sand Replenishment Project
Environmental Review

Accomplishments to Date on Project Planning:

✓ Received initial input from all applicable permitting agencies and jurisdictions.

✓ Identified all necessary studies, surveys, and reports and CEQA/NEPA requirements.

✓ Compiled and reviewed existing literature and studies related to the project and vicinity.

✓ Developed Request For Proposals for sediment sampling and analysis.
Sand Sampling and Analysis Concept

Intertidal (MHW to 0’) & subtidal (0’ to final depth)

Supratidal (>MHW), intertidal (MHW to 0’) & subtidal (0’ to final depth)
Surfers Beach Pilot Sand Replenishment Project

Environmental Review

Next Steps:

- Review sediment sampling/analysis proposals and award contract.*

- Continue to collaborate with permitting/natural resource agencies on completing required studies and reports.

- Complete an *Environmental Assessment* to meet CEQA requirements.

- Complete *Biological Assessment* and required surveys.

* Requires Board approval and/or input
Surfers Beach Pilot Sand Replenishment Project
Permitting and Agency consultation

Accomplishments to Date on Project Planning:

✓ Held individual meetings with each agency and jurisdiction to discuss permitting requirements.

✓ Coordinated a Permitting Workshop and Site Visit, attended by 14 agency and municipality officials.

✓ Identified all permitting requirements and developed a project Permitting Matrix.

✓ Collaborated extensively with NOAA/GFNMS staff to discuss project design options and permitting requirements.
Defining Mean High Water Line
Surfers Beach Pilot Sand Replenishment Project
Permitting and Agency consultation

Next Steps:

- Continue to collaborate with permitting agencies on all aspects of project planning.
- Complete and submit all required permit applications.
- Coordinate with contractor during construction to ensure permitting requirements are met.
- Conduct all required follow up and reporting activities with agencies.
Surfers Beach Pilot Sand Replenishment Project
Biological and Physical Monitoring Program

Accomplishments to Date on Project Planning:

☑ Initiated development of a *Biological and Physical Monitoring Program* for the project.

☑ Held meetings with USACE and U.S. Geological Survey (USGS) to develop monitoring program specifics.

☑ Hosted a workshop with permitting agencies to discuss monitoring program requirements.

☑ Developed a list of *Monitoring Questions* in collaboration with agency staff.

☑ Preparing for a June 2018 initial “pre-baseline” bathymetric/topographic survey.
Surfers Beach Pilot Sand Replenishment Project

Biological and Physical Monitoring Program

Next Steps:

- Continue to develop ecological and physical monitoring program.
- Ensure contracts are in place to complete monitoring plan before, during, and after construction*.
- Carry out monitoring before, during and after project construction.
- Use monitoring data to assess Project impacts and effectiveness.

* Requires Board approval and/or input
Contact Information:
Brad Damitz
415-259-5766; brad.damitz@me.com