

# *Surfers Beach Pilot Restoration Project Construction Update*



**Brad Damitz, Coastal Management Consultant**

**San Mateo County Harbor District, Board of Harbor Commissioners Meeting 8/20/25**

# Pillar Point Harbor Project Location Map



Eelgrass  
Mitigation  
Area

Proposed  
Dredging Areas

Surfers Beach  
Sand Placement

# Existing Conditions at Surfers Beach



January 2023

# Existing Conditions at Surfers Beach



Major Erosion Issues at Mirada Surf West Park

# Existing Conditions Pillar Point Harbor



Low Tide, January 2021

# Project Overview

- The Project will remove ~75,000 cy of sand from Pillar Point Harbor and place it at Surfers Beach.
- Large-scale Eelgrass mitigation, involving dredging/placing ~18,000 cy of sediment is required as part of Project permits.
- This is a “Pilot Project” and, if successful, a larger version could be pursued in the future.
- Requires extensive physical and ecological monitoring.

# Surfers Beach Construction Timeline

1. Contractor mobilization.
2. Dredge near Boat Launch Ramps and construct eelgrass mitigation area.
3. Finish placing sediment at eelgrass mitigation area and allow placed sediment to settle.
4. Transplant Eelgrass
5. Dredge and pump sand to Surfer's Beach, Final grading.
6. Contractor closeout and Demobilization.

# Surfers Beach Pilot Project Implementation TIMELINE

## Key Dates:

- Bid Opening: **May 6, 2025**
- District signs contract with Vortex Marine Construction, Inc.: **May 27**
- Limited notice to proceed and Contractor Mobilization: **June 24**
- **Construction start date**: **July 28**
- Begin dredging 1B,1C, place sand at Eelgrass Mitigation Area **July 29**
- Begin dredging 1A, place sand at Surfers Beach: **August 21**
- Begin Eelgrass transplant: **August 30**
- Begin dredging Area 2: **August 25**
- **Construction Completion Date**: **October 18**
- Demobilization Complete: **November 3, 2025**

# Surfers Beach Pre-Construction Tasks

## **Pre-Construction Surveys and Monitoring Completed:**

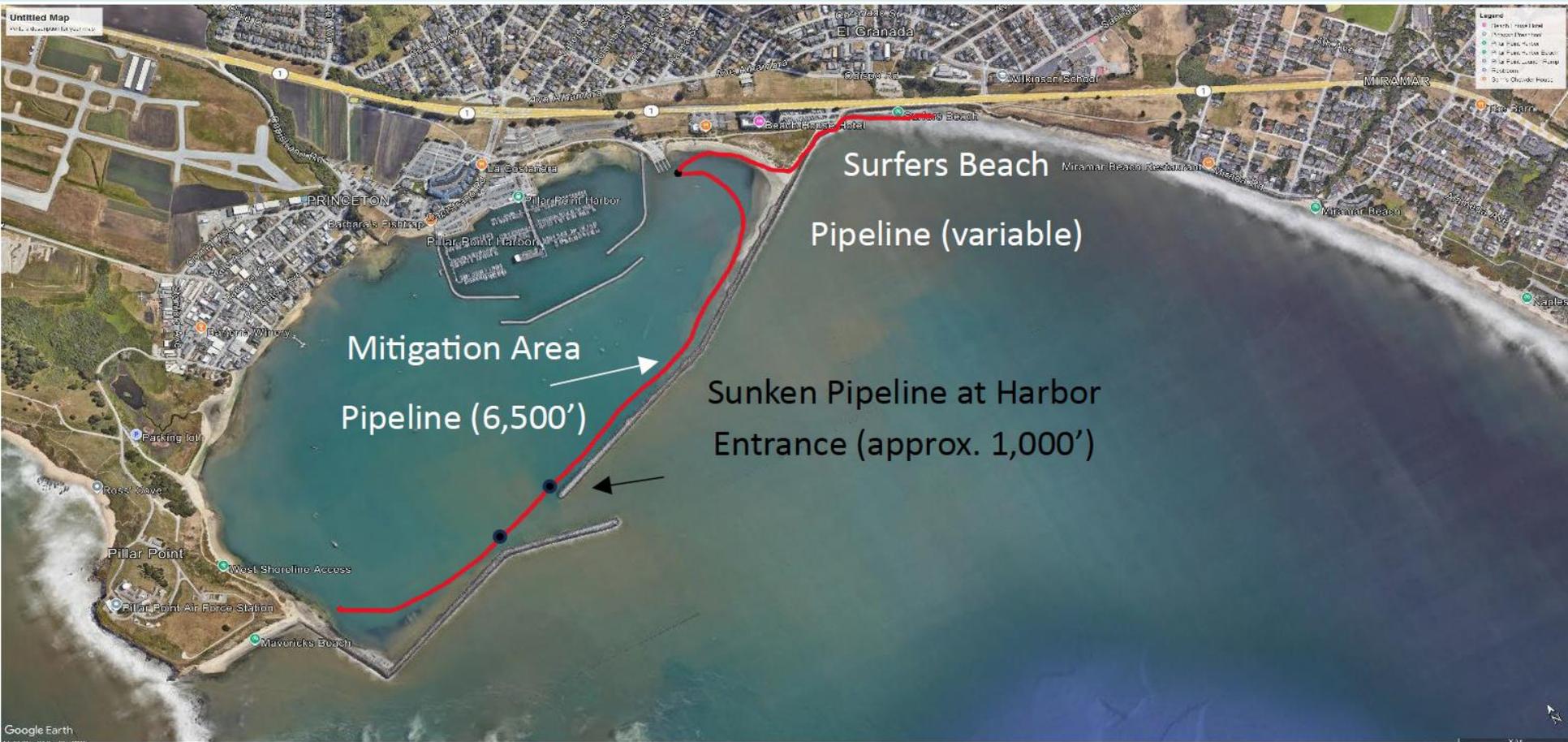
- Eelgrass surveys
- Black abalone survey
- Special Status Plant surveys
- Bathymetry and Beach surveys.
- Surfing Conditions monitoring (ongoing)
- Sandy Beach monitoring
- Nesting Bird surveys (ongoing, weekly)
- Snowy Plover surveys

# Dredge Pipeline Installation



Pipelines staged at ramp

# Surfers Beach Project Construction



**Dredge Pipeline Alignment to Eelgrass Mitigation Fill Area**

# Dredging Operations Began Near Launch Ramps on August 29



# Tsunami Damage Delay! 7/30/25 (3-Days)



Damaged Dredge Pipeline



Survey showing pre- and post-tsunami submerged pipeline locations.

# Worker Environmental Awareness Training Held on August 30



Hard Hat Sticker

# Eelgrass Mitigation Placement Barge



Assembly of barge at Launch Ramps



Placement of sediment in action

# Eelgrass Mitigation Placement Barge



**Placement barge working inside 1,400' long turbidity curtain**



**Example of placement barge in action**

# Second Dredge Has Arrived!



# Second Dredge Has Arrived!



# Second Dredge Has Arrived!



# Dredging at Boat Launch Ramps

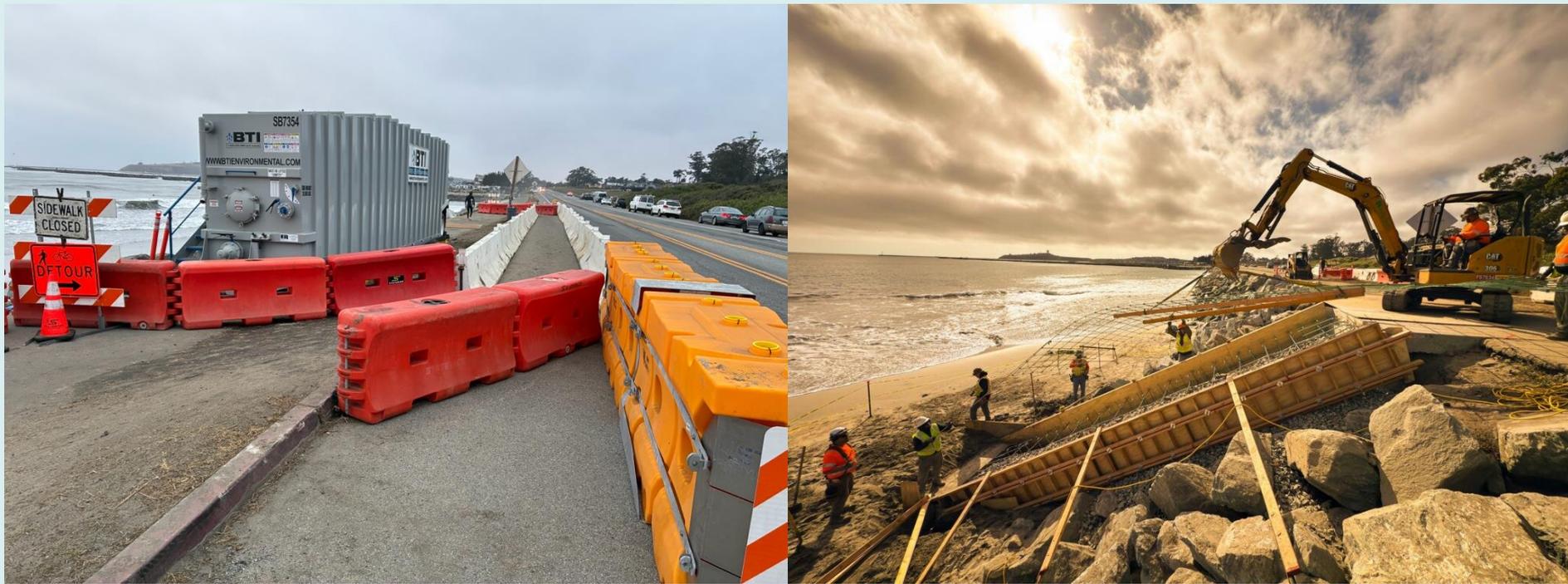


Clay layer encountered at Boat Launch Ramps



Debris encountered at Boat Launch Ramps

# Caltrans Stairway Replacement is Completed



# Heavy Equipment Beach Access Ramp Constructed



# Signage Installed throughout Pillar Point Harbor



## Surfers Beach Pilot Restoration Project San Mateo County Harbor District

**Board of Harbor Commissioners**  
 Kathryn Slater-Carter, President  
 George Domurat, Vice President  
 Tom Mattusch, Treasurer  
 William Zemke, Secretary  
 Virginia Chang Kiraly, Commissioner

**CONSTRUCTION IN PROGRESS: July 2025 — October 2025**

### Project Purpose:

The need for this project stems from the construction of the harbor's breakwaters by the Army Corps of Engineers in the early 1960s, which disrupted natural sediment transport along the Half Moon Bay coast. Over time, the harbor began trapping sediment while downcoast areas like Surfer's Beach experienced ongoing erosion. This pilot project will restore beach width, improve public safety, and reuse clean sand dredged from inside Pillar Point Harbor.

Scan here for more Project Information and Updates or visit: [www.smharbor.com/projects](http://www.smharbor.com/projects)



### How the Project Works:

**DREDGING** - up to 114,000 cubic yards of clean sand is removed from the harbor near the Boat Launch Ramps and East Outer Breakwater to improve navigation and reduce sediment buildup.

**SAND PLACEMENT** - the clean beach compatible sand is hydraulically pumped through a pipeline and placed on Surfer's Beach, where it will provide restored beach access, ecological habitat, and shoreline protection.

**EELGRASS MITIGATION** - to offset potential impacts to eelgrass the Harbor District is required to conduct eelgrass mitigation for this Project. This involves salvaging eelgrass plants from inside the dredging areas and transplanting them into an eelgrass mitigation area being constructed in the west harbor using sediment dredged near the boat launch ramps.



Project Construction Areas



Surfer's Beach Erosion - Pre-construction Condition

Pillar Point Harbor Shoaling - Pre-construction Condition

### Project Construction Areas:

**Dredging Areas** are in Pillar Point Harbor's east basin. Dredge Area 2 is along the east outer breakwater and will supply sand that will be placed on Surfer's Beach. Dredge area 1 is located off the boat launch ramps and will supply sand to Surfer's Beach and also to the eelgrass mitigation area being constructed near the west outer breakwater.

**Surfer's Beach Placement Area** is where 75,000 cubic yards of clean sand will be hydraulically pumped from the dredge areas inside the harbor to form an elevated berm along approximately 1,200' of shoreline adjacent to Highway 1.

**Eelgrass Mitigation Area** will be constructed using 18,000 cubic yards of sandy sediment dredged from near the Harbor's boat launch ramps.

**Owner:** San Mateo County Harbor District



504 Avenue Alhambra, 2nd Floor  
 El Granada CA 94018  
 Phone: (650) 683-4400

**Contractor:** Vortex Marine Construction, Inc.



1 Maritime Way  
 Antioch, CA 94509  
 Phone: (510) 261-2400

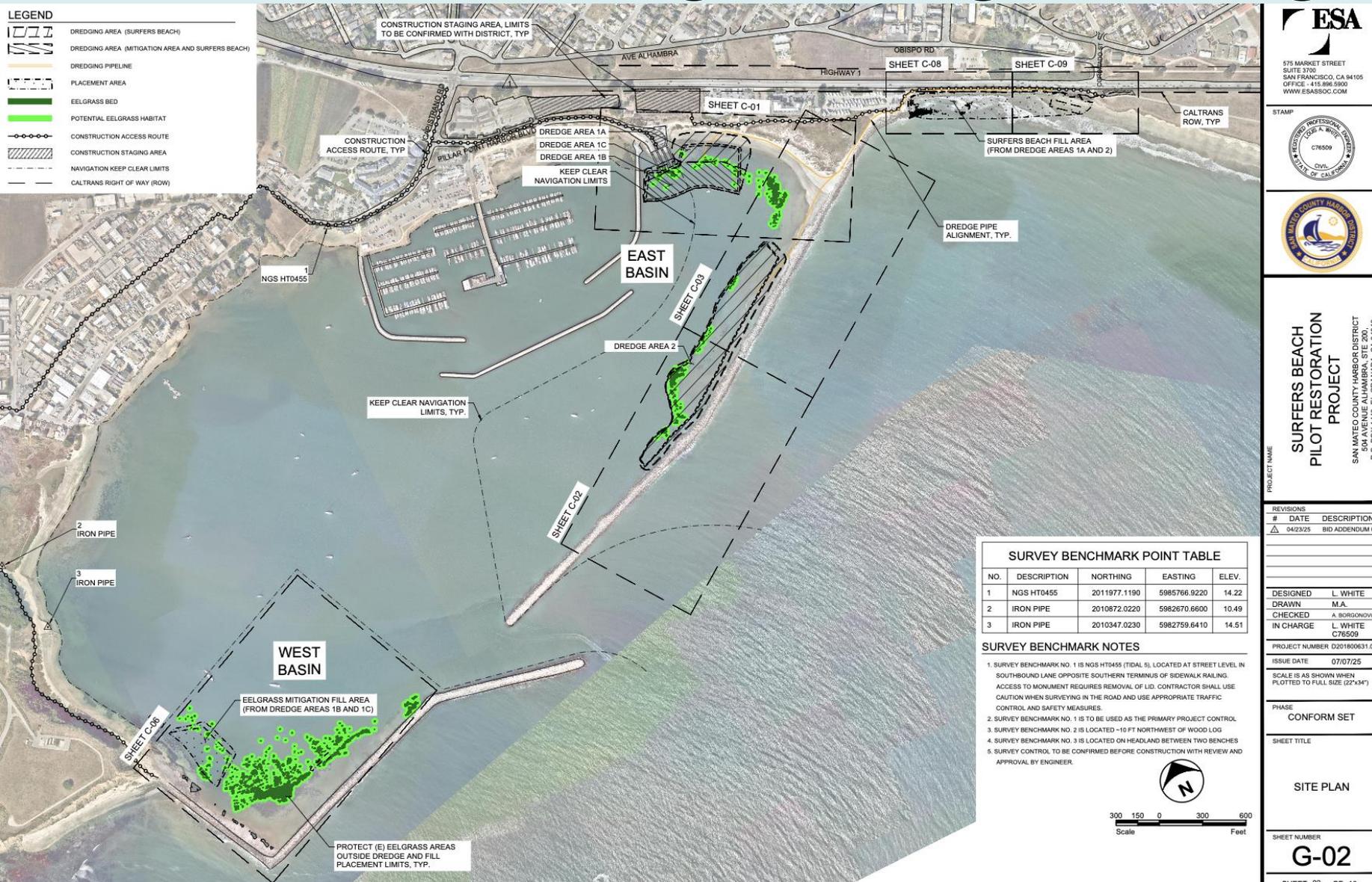
**Designer:** Environmental Science Associates



Project funded by SB 1 through the Ocean Protection Council



# Surfers Beach: Engineering & Design



**ESA**

575 MARKET STREET  
SUITE 3700  
SAN FRANCISCO, CA 94105  
OFFICE - 415.896.8900  
WWW.ESASSOC.COM

**STAMP**

REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
STATE OF CALIFORNIA  
C76509

**SAN MATEO COUNTY HARBOUR DISTRICT**

**SURFERS BEACH PILOT RESTORATION PROJECT**

SAN MATEO COUNTY HARBOUR DISTRICT  
509 AVENUE ALHAMBRA, STE 200  
P.O. BOX 1446, EL GRONDO, CA 94018

**PROJECT NAME**

**REVISIONS**

#	DATE	DESCRIPTION
1	04/23/25	BID ADDENDUM 01

**DESIGNED** L. WHITE  
**DRAWN** M.A.  
**CHECKED** A. BORGONOVO  
**IN CHARGE** L. WHITE  
C76509

**PROJECT NUMBER** D201800631.02  
**ISSUE DATE** 07/07/25  
**SCALE** IS AS SHOWN WHEN PLOTTED TO FULL SIZE (24"x34")

**PHASE** CONFORM SET

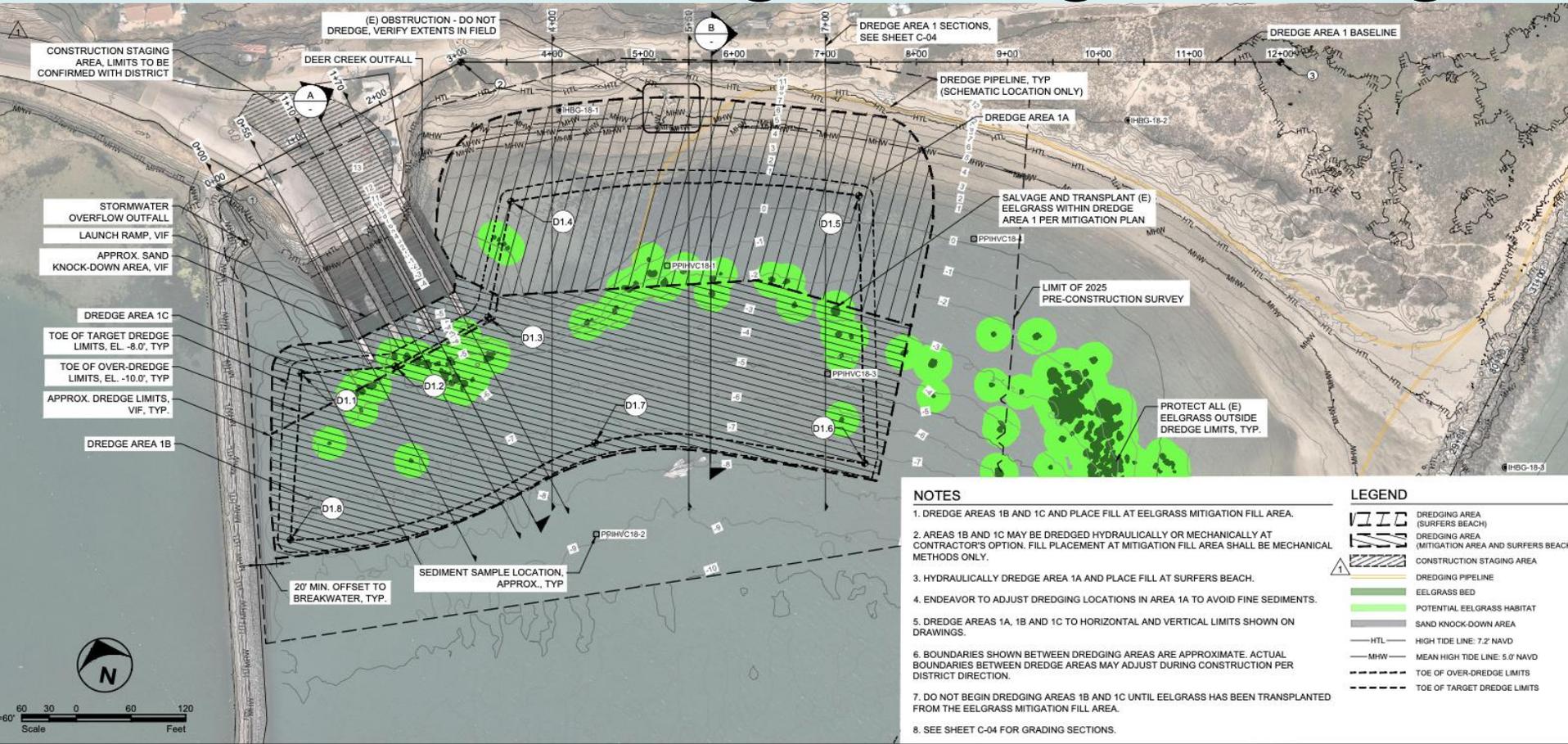
**SHEET TITLE** SITE PLAN

**SHEET NUMBER** G-02

SHEET 02 OF 16

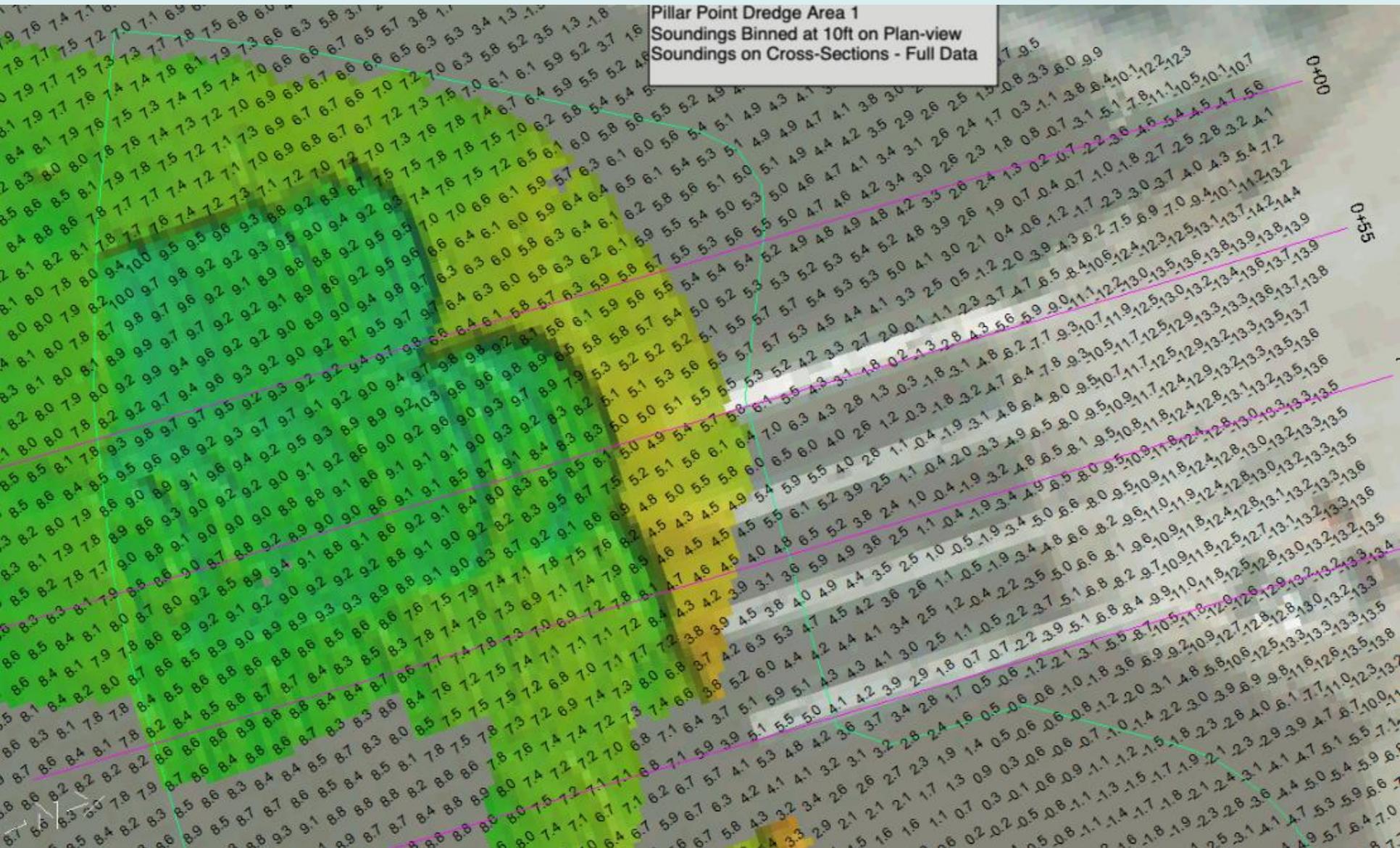
Site Plan – Showing dredge areas, eelgrass mitigation and beach placement.

# Surfers Beach: Engineering & Design



**Dredging Areas 1A – 1C: Sediment to be placed at eelgrass mitigation area and Surfer's Beach**

# Progress at Dredge Area 1

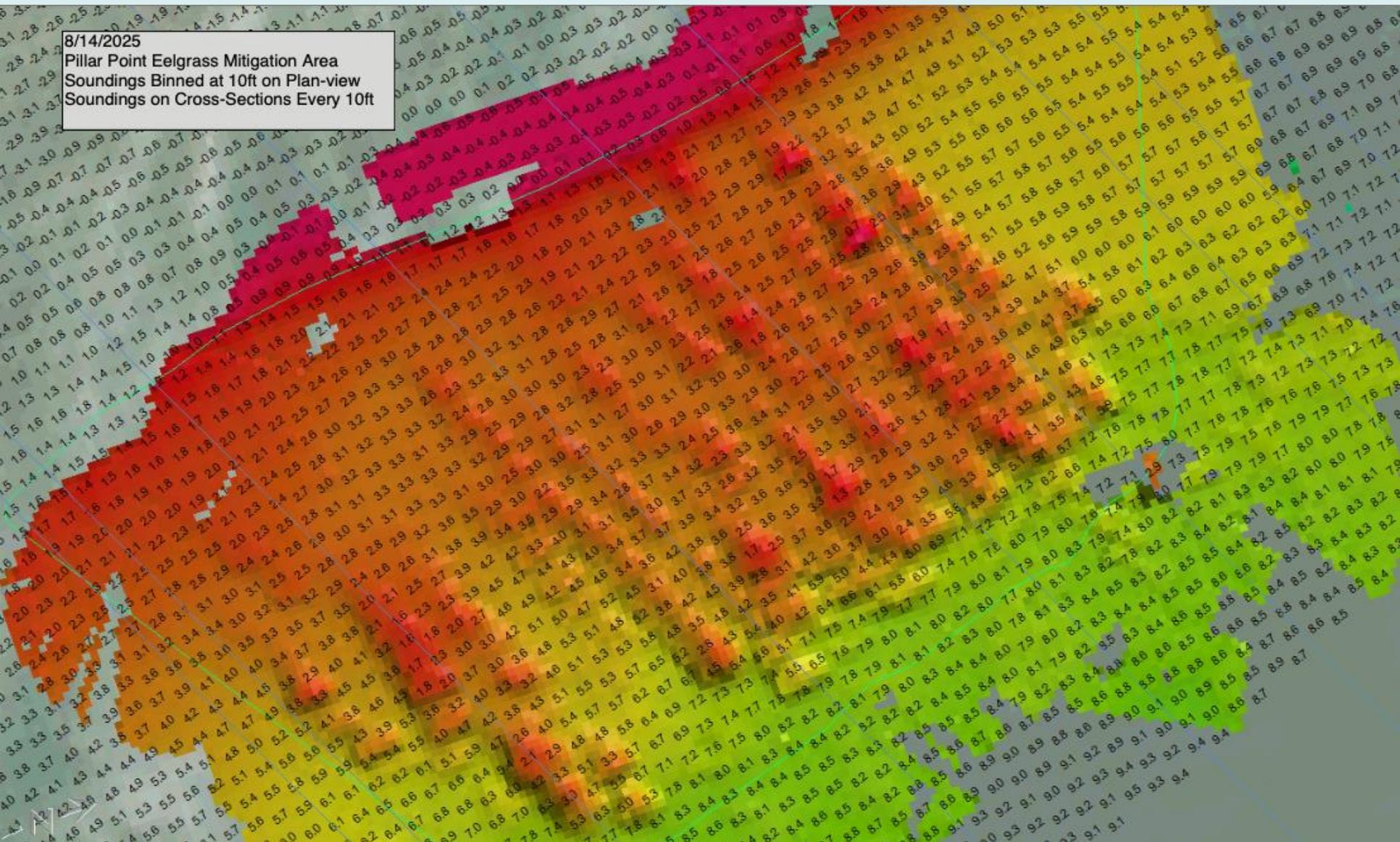


Survey from 8/15/25



# Progress at Eelgrass Mitigation Placement

8/14/2025  
Pillar Point Eelgrass Mitigation Area  
Soundings Binned at 10ft on Plan-view  
Soundings on Cross-Sections Every 10ft



Survey from 8/14/25



# Pre-Construction Eelgrass Survey Results



Figure 5. Map of eelgrass and unvegetated eelgrass habitat within Project elements in the east basin of Pillar Point Harbor.

# Surfers Beach Implementation Timeline

## KEY DATES – PUBLIC NOTIFICATION REQUIRED

- 1. August 19 – 24 Pipeline launch** – transport second dredge pipeline segments down the slope from the assembly location and place in the water. Pipe sections will cross the pedestrian path during brief intervals. Estimate is approximately 1 hour to move and launch each section, with 5 total sections. Pipeline sections will then be transported up the beach along the breakwater and assembled where the pedestrian trail meets Hwy 1. **Construction crews will work with pedestrians and cyclists to allow limited passage during operations as it is safe to do so**
- 2. August 19-22: Secondary Pipeline Re-route** – The existing dredge pipeline being used in the harbor will also be re-routed from inside harbor to Surfer’s Beach. This will require short-term temporary closure of harbor entrance—at least 24 hours notice will be given.

# Project Information Available

<https://www.smharbor.com/surfers-beach-pilot-restoration-project>

- Construction Updates
- Project Description.
- Preliminary Design Report
- Final Plans and Technical Specification
- CEQA Final IS-MND.
- Harbor-wide Eelgrass Mitigation and Management Plan.
- Sediment Sampling and Analysis Report.
- Biological Assessment.
- Federal/State Wetland Delineation Reports.
- Permits

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