CITY OF SOLANA BEACH COASTAL STORM DAMAGE REDUCTION PROJECT

Project Update







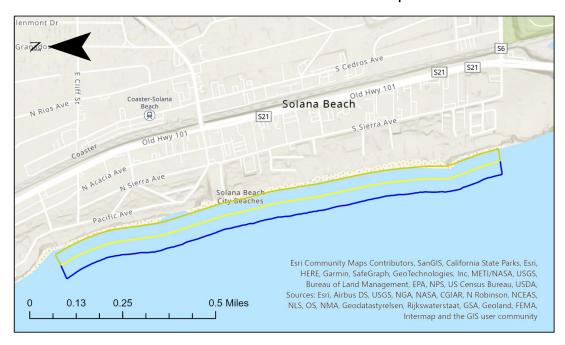


BEACH SAND PROJECT OVERVIEW

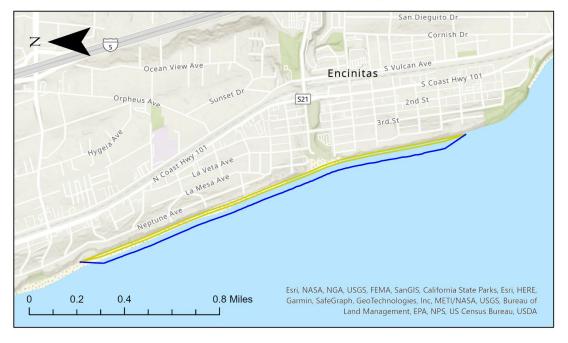
- Project is a partnership between City + State + Federal Agencies
- Project planning, environmental and permitting phase 20 years
- One of the first entirely new federal beach sand projects in California
- USACE Project will create a new, 150-foot wide beach sand berm
- Volume of sand dredged is approximately 700,000 cubic yards
- Project footprint is approximately 7,200 feet long

SOLANA BEACH & ENCINITAS NOURISHMENT FOOTPRINTS

Solana Beach Nourishment Footprint



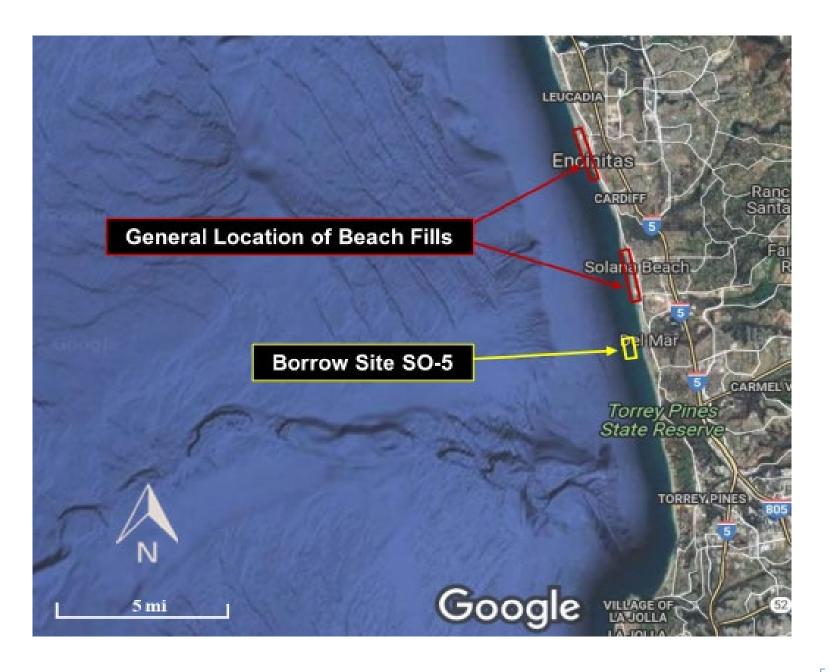
Encinitas Nourishment Footprint



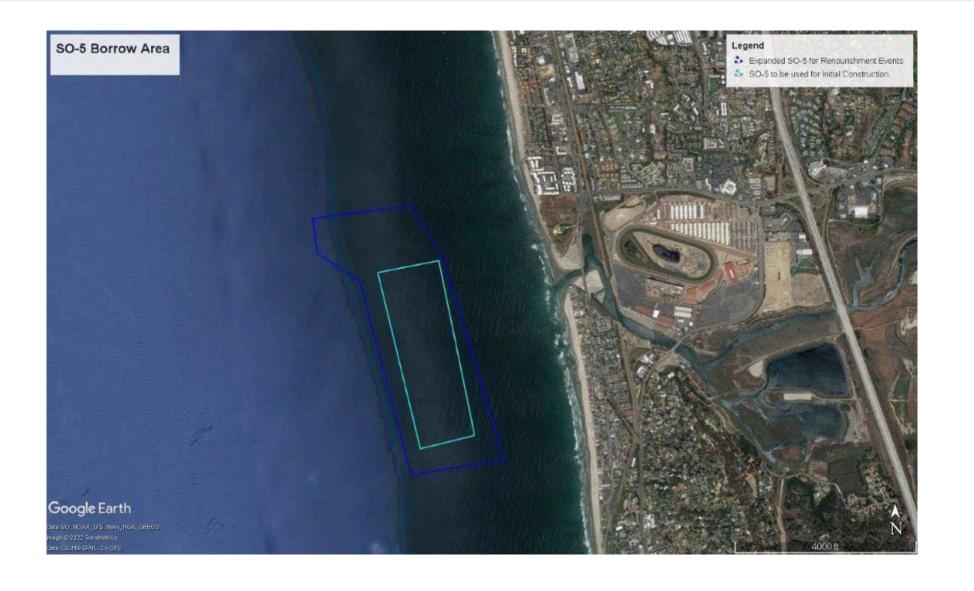
SOLANA BEACH PROJECT OVERVIEW

- Sand will be placed from Tide Park stairs to southern City limits
- Sand source is from borrow site SO-5 (offshore San Dieguito River mouth)
- Additional renourishment events approximately every 10 years
- Renourishment volume = 290,000 cubic yards
- Final renourishment in 2074 (e.g., in 50 years)

PROJECT FOOTPRINTS



SO-5 OFFSHORE SAND SOURCE



BEACH SAND PROJECT PHASING

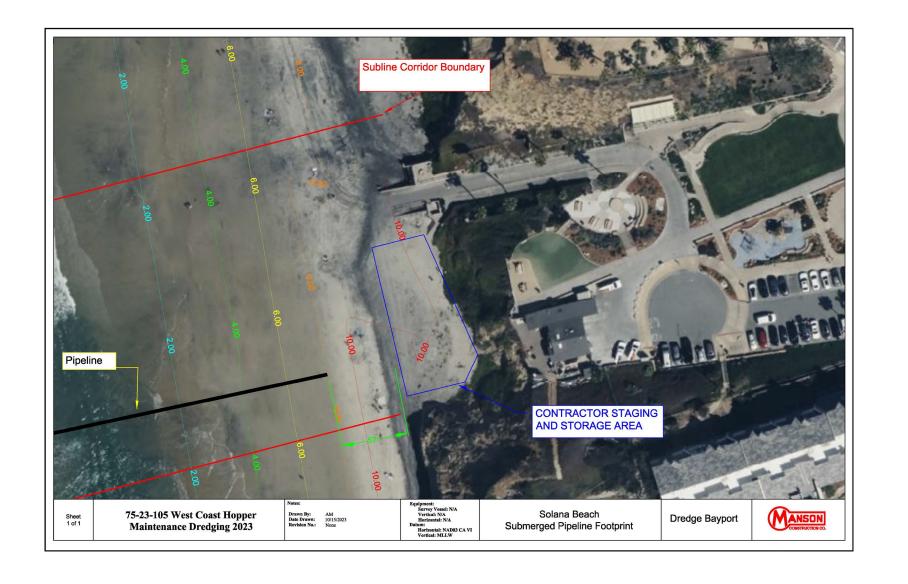
Pipeline Installed December 11, 2023

Sand Placement Starts Mid-January 2024 Construction will last approximately 60 days

Dredging will occur 24 hours a day / 7 days a week Shore equipment operates 12 hours/day, 7 days week

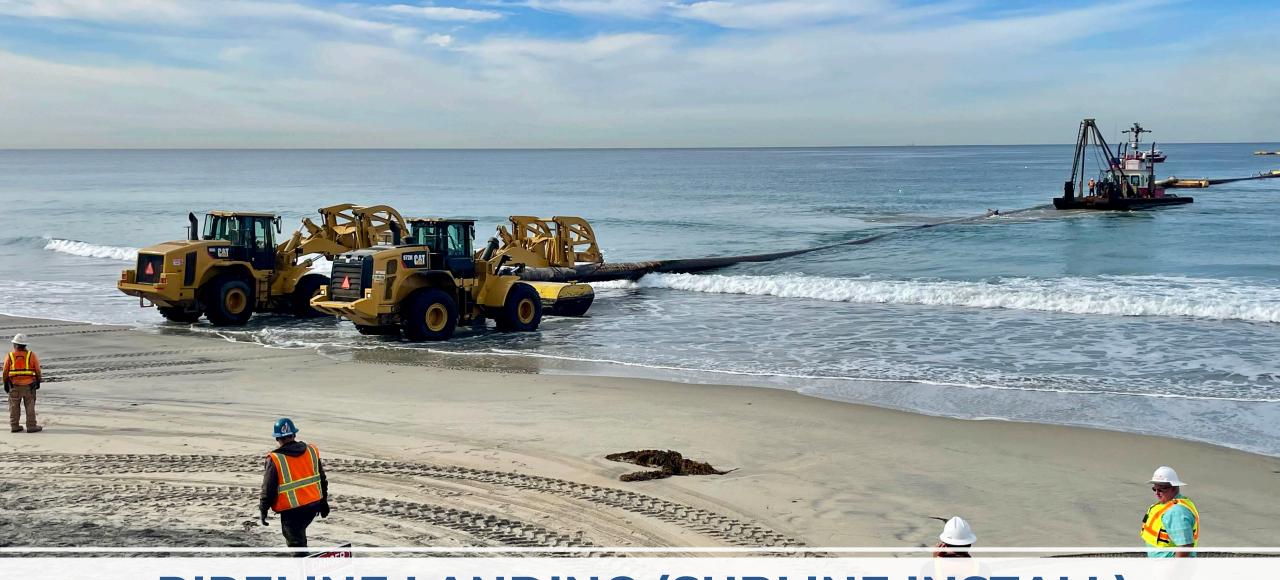
Post-construction
Wrap Up
Mid-March 2024

SOLANA BEACH SUBMERGED PIPELINE FOOTPRINT INSTALLED 12/11/23













NEXT STEPS AND SCHEDULE

- ✓ Set up construction staging areas first week of January 2024
- ✓ Beach sand placement anticipated in Mid-January 2024
- ✓ Starts after San Clemente Beach Sand Project Completed
- √ 60 days of active beach sand placement activities
- ✓ Solana Beach wrap up anticipated in Mid- March 2024
- ✓ Begin Encinitas after completion of Solana Beach Project





Notes:

- 1. Approximate mobilization/ demobilization path (orange) will be utilized at the beginning and end of construction.
- 2. Approximate beach path (blue) will be utilized periodically by equipment transiting to the Solana Beach construction area.
- S. Cardiff Staging Area Approximate Dimensions:
- A 165 feet
- B 165 feet
- C 230 feet
- D 175 feet



STATE PARKS

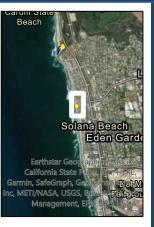
SEASIDE PARKING LOT STAGING AREA

EXAMPLE:

EQUIPMENT STORAGE AT CARDIFF STATE PARKS PARKING LOT







Fletcher Cove Staging Area Approximate Dimensions:

- A 50 feet
- B 130 feet
- C 60 feet
- D 130 feet



FLETCHER COVE STAGING AREA



EXAMPLE: CONSTRUCTION PHASE

EXAMPLE: CONSTRUCTION PHASE



PUBLIC SAFETY PROGRAM



Public signs to be posted at multiple locations



Equipment moving along beach will have spotters at all times



Temporary construction fencing around dredge discharge area



No public access in active sand placement areas

PUBLIC SAFETY CLOSURE

CLOSURE ESTIMATED UNTIL MARCH 2024

SUBMERGED PIPELINE



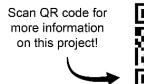




We appreciate your cooperation while we work to restore the beach!

Call 911 in case of an emergency

Solana Beach Marine Safety: (858) 720-4444 City of Solana Beach General Info: (858) 720-2440 US Army Corps of Engineers (USACE): (858) 242-2834





PUBLIC SAFETY CLOSURE

CLOSURE ESTIMATED UNTIL MARCH 2024

SUBMERGED PIPELINE







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Scan QR code for more information on this project!

PUBLIC OUTREACH & COMMUNICATIONS

- Public Outreach & Communications
 - Public signs posted by City, USACE & Contractor
 - Beach access limitations during active construction phase
 - Temporary beach closures in work zone to protect public safety
 - Project information & construction schedule communicated:
 - ✓ @ Council Meetings
 - ✓ Public Noticing onsite
 - ✓ Press Releases & E-Blasts
 - ✓ QR Code
 - ✓ Dedicated Project Website
 - √ https://www.cityofsolanabeach.org/beachsand
 - ✓ Social Media posts



Solana Beach Sand Project Sand Placement and Area Closures

December 2023 - March 2024

The U.S. Army Corps of Engineers is working closely with the Cities of Solana Beach and Encinitas in a joint effort to reduce bluff and beach erosion along this stretch of coast.

Over 700,000 cubic yards of sand will be dredged from a borrow area approximately 3,500 feet offshore of the San Dieguito Lagoon, then pumped ashore using a submerged pipeline extending onto the beach near Fletcher Cove. The sand will then be pumped along the beach and shaped into a berm by earthmoving equipment.

During construction, beach access will be restricted to protect public safety. In addition, portions of the South Cardiff Seaside parking lot and Fletcher Cove Beach will be closed for project staging.

We appreciate your cooperation while we work to restore the beach!



Project Contacts: Contact 911 in case of an emergency

US Army Corps of Engineers (USACE) Contacts:
Nathan Miller, (360) 899-8223;
nathan.c.miller@usace.army.mil

Dan Heyenbruch, (858) 242-2834 daniel.b.heyenbruch@usace.army.mil City of Solana Beach Contacts:

Joe Lim, Community Development Director (858) 720-2440; beachsand@cosb.org

Solana Beach Marine Safety (858) 720-4444







Solana Beach Nourishment Footprint













The City's public beaches contribute significantly to the quality of life for residents and visitors alike. Additionally, beach sand functions as a natural protective buffer from winter storm waves. Beach sand is considered natural coastal infrastructure and like other City infrastructure requires regular and ongoing maintenance efforts to perform at its best. The sandy beach provides a multitude of benefits including shoreline protection, recreation, and environmental benefits.

PROJECT DESCRIPTION

- Project will create almost 25 new acres of beach for the public to enjoy
- Project will create a new, 150-foot wide, 7,200 foot long beach sand berm
- Volume of sand added to the beach is 700,000 cubic yards
- Sand will be placed between along the entire length of the City
- Sand source is offshore of the mouth of the San Dieguito River
- Sand renourishment cycle approximately every 10 years
- Final renourishment event would occur in 207
- 2.1 Million cubic vards will be placed over the 50-year perio

WHAT TO EXPECT DURING CONSTRUCTION

- Construction hours are from 7:00 AM to 7:00 PM, seven days per week for approximately 60 days
- Increased heavy equipment and vehicles on the beach with loud noises
- Temporary beach closures during active sand placement activities
- Fencing to protect public safety
- · Water turbidity (suspended sediments)
- Extra bird activity (shorebirds love to forage in the dredged sandy material)
- Clean up will take a few weeks to remove all equipment and materials



We are committed to completing the project as quickly as possible; however, the timeframe could change due to inclement weather or other unforeseen circumstances. Thank you for your patience and cooperation while we rebuild the City's beaches!

PROJECT PARTNERS













beachsand@cosb.org (858) 720-2440



BEACH SAND PROJECT FLYER

CITY WEBSITE: PROJECT ANNOUNCEMENT



City Announces the Start of the Beach Sand Project Pre-**Construction Mobilization**

HOME > NEWS AND ANNOUNCEMENTS > CITY ANNOUNCES THE START OF THE BEACH SAND PROJECT PRE-CONSTRUCTION MOBILIZATION



The US Army Corps of Engineers (USACE) has advised the City that the USACE and their contractors, Manson Construction, will begin the process of restoring the City's beach beginning as soon as Monday December 4, 2023. The sandy beach functions as critical, natural infrastructure and is an important public recreational amenity requiring regular maintenance to perform optimally.

The first deliveries of sand are anticipated to arrive as early as Mid-December and are dependent on the schedule and timing of San Clemente + USACE beach sand project. Before the sand can be delivered, the USACE and their contractors need to get the dredge pipeline into

place. The pipeline will be located in the water and partially onto the beach so that the dredge can connect to this pipeline and deliver sand. This pre-construction effort will last about one day and will include both a small flotilla of approximately five ships and tug boats and landside mobilization of vehicles and heavy equipment to get the dredge pipeline into place at Fletcher Cove.

Public safety is the highest priority; therefore, the beach and water will be temporarily closed in the vicinity of the dredge pipeline. Signs will be posted regarding the temporary beach closure required to ensure people keep clear of the dredge pipeline. The City appreciates the cooperation of the community while we restore our highly valued public beaches.

Sand Placement and **Area Closures**











January - March 2024

The U.S. Army Corps of Engineers is working closely with the Cities of Encinitas and Solana Beach in a joint effort to reduce bluff and beach erosion along this stretch of coast.

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Solana Beach City Hall 635 S. Highway 101 Solana Beach, CA 92075

858-720-2400

Monday - Thursday 7:30 am - 5:30 pm Every Other Friday 8:00 am - 5:00 pm

E-Newsletter Signup

f Facebook

Instagram

Upcoming Events

Meetings

Council Meetings & Public Workshops

Job Opportunities Website Disclaimer of Liability

CITYOFSOLANABEACH.ORG/ **BEACHSAND**



GOVERNMENT COMMUNITY CITY SERVICES HOW DO I... CONTACT US



CITY PROJECTS

REPs & Construction Bids

La Colonia Park Master Plan

Lomas Santa Fe Corridor Improvement Project

Neighborhood Traffic Management Program

Playground Renovation Project

Safe Routes To School

Shoreline Project (Sand Replenishment)

Glenmont Pocket Park

Santa Helena Neighborhood Trail

- PERMITS, LICENSES & RENTALS
- RESIDENT SERVICES
- ENVIRONMENTAL SUSTAINABILITY

Solana Beach Shoreline Project (Sand Replenishment)

HOME > SOLANA BEACH SHORELINE PROJECT (SAND REPLENISHMENT)

The City is proactively working to protect critical public infrastructure, recreational opportunities, existing structures and sandy beach habitat by building coastal resilience through the 50-year beach sand project.

The natural sand (littoral) processes have been interrupted by development, flood control structures, dams, transportation infrastructure such as roads and the railroad and other hard infrastructure along the shoreline

Existing erosion is exacerbated by storm surge and strong waves at high tide. In Solana Beach, the impacts of coastal erosion have resulted in the narrowing of our beaches and wave encroachment directly against the bluffs, which threaten public and private infrastructure and beach safety. The primary goal of the beach sand project is to restore sand supplies to the shoreline to promote long term coastal resiliency in the City and

Pre-construction monitoring for the Project occurred in Fall 2022 through Fall 2023, and included establishing pre-construction baseline data related to:

- · Beach profiles, sand volumes, and coastal lagoons
- · Surfing conditions and wave characteristics
- · Physical conditions of the sand in the offshore borrow site
- · Water quality
- Biological resources

These data collection efforts are the baseline that will be utilized by the USACE to track any physical changes to the environment following project implementation.

Solana Beach Nourishment Footprint



Project Overview	~
Project Description	~
What can I expect during construction?	~
Project Funding	~
Project Schedule	~
Documents	¥
Frequently Asked Questions	~



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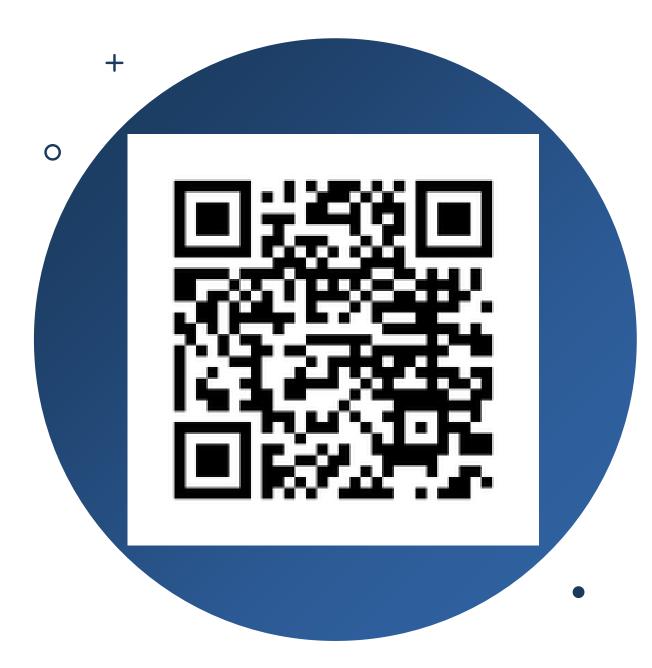
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THANK YOU FOR YOUR TIME!

Solana Beach Shoreline Project (Sand Replenishment) | Solana Beach (cityofsolanabeach.org)