

September 4, 2025

West Coast Beach Nourishment Dredging Panel Discussion

Overview

The San Diego Association of Governments (SANDAG) has led two previous Regional Beach Sand Projects (2001 and 2012) placing 3.6 million cubic yards of sand along San Diego's coastline. Based on robust Regional Shoreline Monitoring Program data, a third regional nourishment project is needed. At the request of the coastal jurisdictions, SANDAG has completed the necessary planning and economic feasibility studies for a third Regional Beach Sand Project (RBSP III). SANDAG is currently seeking state and federal grant funding to begin future phases of RBSP III.

The future construction phase of RBSP III will require the use of an oceangoing hopper dredge to move sand from the ocean floor to the beach. Currently hopper dredges are homeported outside of California which adds cost and time for beach nourishment projects. SANDAG will provide a short presentation on beach nourishment dredging followed by a panel discussion amongst dredging industry representatives, the U.S. Army Corps of Engineers (USACE) staff, and coastal engineers to provide insight into current practices, challenges and opportunities to increase efficiencies and minimize costs.

Action: **Discussion**

The Shoreline Preservation Working Group members will participate in a panel discussion amongst representatives from the dredging industry, the U.S. Army Corps of Engineers and coastal engineers focused on beach nourishment dredging to provide insight into current practices, challenges, and opportunities to raise efficiencies and minimize costs.

Fiscal Impact:

None.

Schedule/Scope Impact:

None.

Key Considerations

- The mobilization cost for the hopper dredge that constructed RBSP II in 2012 was \$9.3 million or 37% of the total project cost of \$25 million. The cost to mobilize the dredge that conducted the USACE Encinitas/Solana Beach Coastal Storm Damage Reduction Project in 2024 was \$7.8 million of the total project cost of \$69 million, 11% of the project cost. This high cost is because the dredges needed for large-scale beach replenishment projects are typically not present in California.
- The State of California and the County of Orange have independently explored the idea of purchasing a dredge for beach nourishment to reduce costs. These studies concluded that it was not economically feasible for one government body to buy and operate a dredge given the initial purchase cost, maintenance and repair requirements, specialized expertise required for open ocean marine dredging, investment required to hire, train, and retain the necessary crew, and high liability associated with this type of construction.
- The USACE is responsible for ensuring safe and efficient navigation through waterways by maintaining and improving federal channels and harbors. USACE operates four full-size hopper dredges nationwide, along with a few "special purpose" hopper dredges restricted to the Mid- and South- Atlantic regions. Two of the full-size hopper dredges are managed by the Portland District and are primarily active on the West Coast. The remaining two are based on the East Coast and are subject to strict legal and operational constraints that prevent deployment to the West Coast except under special circumstances.

- The USACE has substantially more dredging work along the West Coast than can be accomplished by the USACE fleet only. As such, the USACE releases annual contracts to dredge approximately 3.3 million cubic yards of sand from Humbolt Bay, California, the Columbia River, Oregon; and Grays Harbor in Washington. In 2024, the USACE expanded the work to include dredging for beach nourishment in the cities of Solana Beach, Encinitas and San Clemente.
- A [2024-2025 Orange County Grand Jury Report](#) examined the on-going railroad disruption in the City of San Clemente due to beach erosion and bluff collapse. Of the many results concluded in the report, one noteworthy conclusion was the lack of dredging companies serving the West Coast.
- In late 2024, the five counties of Southern California formed the Southern California Beach Sand Collaborative (SCSC) to collaborate on beach nourishment projects and shoreline management issues from Point Conception to the U.S. Mexican Border. One goal of the SCSC is to approach beach nourishment projects collectively across Southern California to increase the number and frequency of beach nourishment activities with the hope to lower overall cost through increased demand.

Next Steps

SANDAG will take all recommendations and insights from the panel discussion into consideration when updating the current shoreline policy documents. In addition, these findings will also inform the planning and implementation of future phases of RBSP III.

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Attachment: 1. Beach Nourishment Dredging Panelists