



U.S. ARMY CORPS OF ENGINEERS

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Barnegat Inlet Dredging & Beneficial Use Project

Background

The U.S. Army Corps of Engineers (USACE) and the New Jersey Division of Coastal Engineering are partners on a project to dredge shoals in the Barnegat Inlet complex and use the sediment beneficially. The two-phase project was selected as part of a competitive nationwide program.

Project Details

The government-owned Dredge MURDEN will dredge sand between the Barnegat Inlet jetties. Normally, the sand is then deposited offshore near Barnegat Light. For this project, sand will be placed in the nearshore area (approximately 200 yards) off Harvey Cedars, NJ (roughly between Hudson Avenue south to Union Avenue). The other phase of the project involved dredging the Oyster Creek federal channel in Barnegat Bay and using the sediment to begin creating an island/habitat in the bay. Construction of this phase occurred in December 2020.



The USACE-owned dredge MURDEN conducts dredging operations in Barnegat Inlet in 2017.

Project Schedule

The Dredge MURDEN is expected to arrive on or about July 6th and will conduct dredging and placement operations for approximately 30 to 45 days. The dredge will operate 24 hours a day.

Project Purpose

Barnegat Inlet is a Federal Navigation Channel. Maintaining safe navigation through the inlet is critical to the U.S. Coast Guard and a large fishing fleet. USACE dredges the inlet twice a year with the government-owned dredge *CURRITUCK* or *MURDEN*. However, a large amount of sediment remains shoaled in the state and federal navigation channels with limited funds and places to put the sediment. This project offers the opportunity to dredge a significant quantity of sediment from the inlet and test innovative nearshore placement techniques to benefit the nearby Federal Coastal Storm Risk Management (CSRM) beachfill project. The chosen placement area within Harvey Cedars is an area that has historically experienced chronic erosion. The inlet dredging and nearshore placement is designed to support the beachfill, which has a 7-year periodic nourishment cycle.

Frequently Asked Questions:

Will this operation make noise like beachfill projects in the past?

No, there will be no land-based construction equipment for this operation which is the source of the noise during large-scale beachfill operations. For this project, the government dredge MURDEN (pictured on previous page) will dig in the federal channel between the Barnegat Inlet jetties, transit to Harvey Cedars, and dump the sand in the nearshore area.

Is it a 24/7 operation like traditional beachfill projects?

Yes. The MURDEN will conduct dredging and placement operations 24 hours a day. Each cycle of dredging takes 3-3.5 hours so the project team estimates the dredge may complete 7-8 placements per day.

Do swimmers and beachgoers need to take any precautions?

Please follow instructions of lifeguards. Swimming and recreating near the dredge when it is dumping sand in the nearshore area will be prohibited. It's important to point out the dredge will be placing sand approximately 200 yards off the beach.

Will the dumping of sand off the beach affect water quality?

No. The dredge will be digging clean sand in Barnegat Inlet that is part of the same system as sand along the Long Beach Island oceanfront. After the MURDEN completes a cycle and places sand in the nearshore area, there may be brief periods where the water clarity is impacted, but the project team anticipates the sand will settle quickly.

What are the instruments that are being placed in the water?

Three pressure sensors will be mounted on pipes and deployed within the ocean near the beach at depths of approximately 5 ft and 20 ft to measure waves and associated hydrodynamics. Swimmers and surfers should avoid these poles to ensure their own safety as well as the quality of the data collection. These wave gauges will be deployed immediately before the placement of sand and will capture data associated with evolving conditions at the site.



Barnegat Inlet is dredged two times per year. Normally, the sand is then deposited offshore near Barnegat Light. For this project, sand will be placed in the nearshore area approximately 200 yards off Harvey Cedars, NJ.