

# Marine Minerals Program

## *Preserving and Restoring the Nation's Beaches and Promoting Coastal Resilience*

BOEM's **Marine Minerals Program** (MMP) manages Outer Continental Shelf mineral leasing (primarily sand and gravel) for coastal restoration, and commercial leasing of gold, manganese, and other hard minerals. Pursuant to **Executive Order 13817**, the MMP and the U.S. Geological Survey (USGS) are **collaborating** to determine which 35 critical minerals are located on the OCS. Domestically-sourced critical minerals could reduce the Nation's vulnerability to economic disruption and negative national security impacts caused by a break in imports used in manufacturing and other sectors.

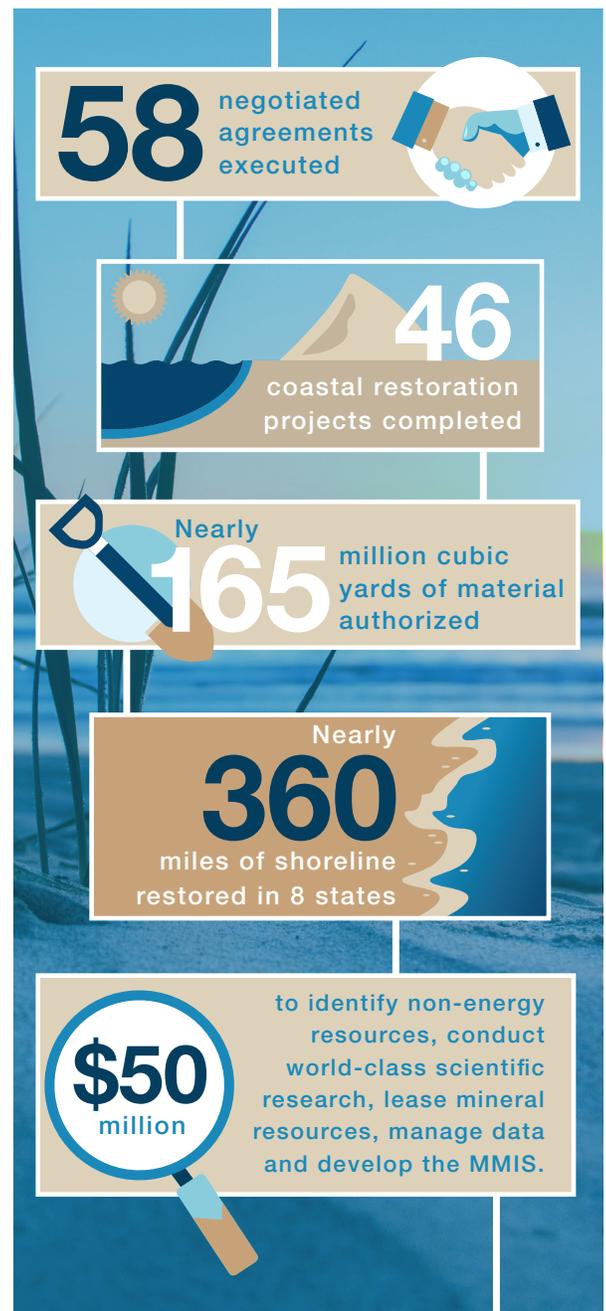
BOEM ensures that the removal of any mineral resource is conducted in a safe and environmentally sound manner, and that any adverse environmental impacts are avoided or minimized.

**What are the primary uses of marine minerals?** Marine minerals are used primarily in coastal restoration projects, including beach nourishment and habitat restoration, with increased attention to building resilience to deal with future storms and rising sea levels.

**Why is this program beneficial?** Access to and identification of OCS sand resources is critical for the long-term success and cost-effectiveness of shore protection, beach nourishment, and habitat restoration projects. Erosion of the nation's beaches, dunes, and coastal wetlands affects natural resources, energy, defense, public infrastructure, and tourism, which are important to healthy ecosystems and the economy at all levels.

**What is the demand for marine minerals?** In recent years the bureau has experienced a significant increase in the volume of sediment requested and the number of requests to use OCS sand resources. This trend is most likely due to a diminishing supply of available material in state waters, increased coastal erosion due to more frequent and intense storms, and sea level rise. BOEM maintains a **National Offshore Sand Inventory**, including data housed within a GIS-based **Marine Minerals Information System (MMIS)** that helps identify sediment quality, quantity, location, and accessibility. The inventory informs planning, improves response time, and bolsters preparedness.

**Where are projects located?** OCS material has been used for about four dozen coastal restoration projects in Florida, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, South Carolina, and Virginia. Taking a regional approach, the MMP sponsors new





offshore surveys from Maine to Texas and California. BOEM has followed the approach it used after Hurricane Sandy in 2012, when it supported coastal restoration projects in several Atlantic states, and sponsored research partnerships to update offshore sand maps and data-bases in 13 states. Projects generally consist of four phases: identifying sand resources and conducting environmental reviews prior to project approval; dredging to obtain sand and/or gravel; placing it along the shoreline; and engaging with partners and stakeholders to monitor dredging site and placement conditions.

**Who are our stakeholders and partners?** The MMP works with local governments, state geological surveys and environmental agencies, the U.S. Army Corps of Engineers, USGS, NOAA Fisheries,

U.S. Fish and Wildlife Service, National Park Service, and NASA. We actively engage fisheries groups, non-profits, and tribes in workshops, Sand Management Working Groups, and other settings.

**How does BOEM evaluate environmental impacts?** The bureau must review all environmental impacts and prepare either an environmental assessment or environmental impact statement. BOEM requires mitigation measures and other stipulations to protect physical, biological, and cultural resources. Stipulations often include dredging time-frame constraints, dredge location constraints, lighting requirements, equipment requirements, monitoring requirements for threatened and endangered species, and buffers surrounding cultural resources and hard-bottom habitat.



*Before*



*After*

Ongoing Ship Island restoration through the Mississippi Coastal Improvement Project, a joint effort between BOEM, the National Park Service, the U.S. Army Corps of Engineers Mobile District, and the State of Mississippi. Phase 1 of the Ship Island restoration was completed in early 2019. Ship Island is part of the Gulf Islands National Seashore, which is managed by the National Park Service.

In 1969, Category 5 Hurricane Camille cut Ship Island in two, and created the Camille Cut. As a barrier island, Ship Island's restoration protects coastal communities and coastal ecosystems, and once complete, will be the largest BOEM coastal restoration project to date.

For more information, visit: <http://www.boem.gov/Marine-Minerals-Program/>

**About the Bureau of Ocean Energy Management**

The Bureau of Ocean Energy Management (BOEM) promotes economic development, energy independence, and environmental protection through responsible, science-based management of offshore conventional and renewable energy, and marine mineral resources.



**For More Information:**

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