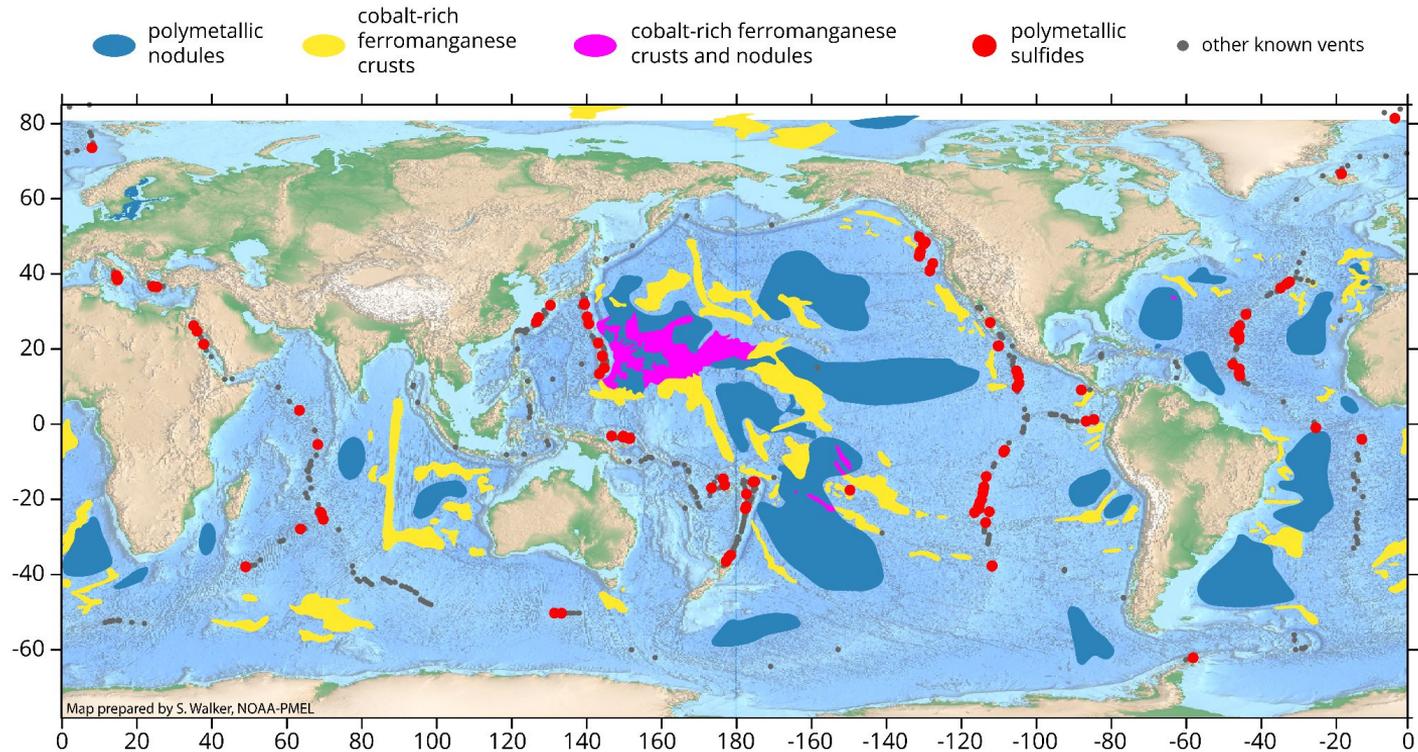


Deep Seabed Hard Mineral Resources



NOAA Briefing for NASEM Committee
February 11, 2026

Occurrence of Offshore Critical Minerals



Federal Agencies in Critical Mineral Management



- **Deep Seabed Hard Mineral Resources Act**
- Exclusive authority under U.S. law for deep seabed mining activities in **Areas Beyond National Jurisdiction (ABNJ)**



- **Outer Continental Shelf Lands Act**
- Exclusive authority over deep seabed mining activities on the **U.S. Outer Continental Shelf (OCS)**



- Manages the **international implications** of potential U.S. deep-sea mining **beyond the OCS**
- Works closely with **BOEM, NOAA, and USGS**

NOAA's Role

With science, research, and the law as our guide, we seek to learn more about the location, abundance, and quality of marine critical minerals, their surrounding environments, and the potential environmental impacts of deep sea mining

1. Regulation

NOAA administers the DSHMRA, which governs the deep seabed mining activities of U.S. entities beyond national jurisdiction, and is a consulting agency for activities that may impact protected species and resources.

2. Mapping

Only 54% of U.S. waters have been bathymetrically mapped to modern standards, and only 26% of the seafloor globally. NOAA maps the unknown seafloor, including areas with potential critical mineral deposits.

3. Research

NOAA conducts research to explore and understand the unique biological and geologic aspects of the deep sea, as well as potential ecological impacts of deep sea mining activities.

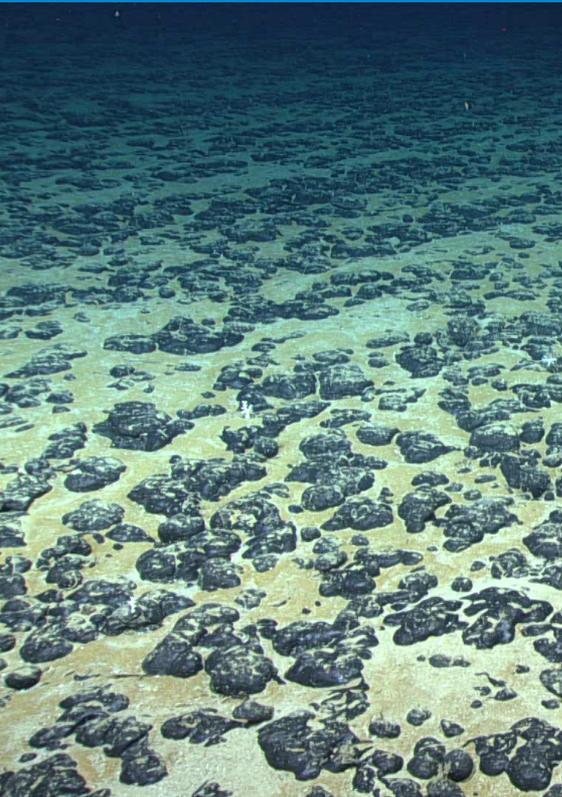
Deep Seabed Hard Mineral Resources Act of 1980 (DSHMRA)

- Establishes requirements for U.S. citizens engaged in exploration or commercial recovery in areas beyond national jurisdiction.
- Does not apply to areas within U.S. jurisdiction or the national jurisdiction of any other nation.
- Only pertains to "polymetallic nodules containing manganese, nickel, cobalt, or copper."

Requirements

- License required for exploration in areas beyond national jurisdiction by U.S. citizens.
- Permit required for commercial recovery in areas beyond national jurisdiction by U.S. citizens.
- Other environmental and other compliance obligations may also apply.

NOAA Research & Exploration



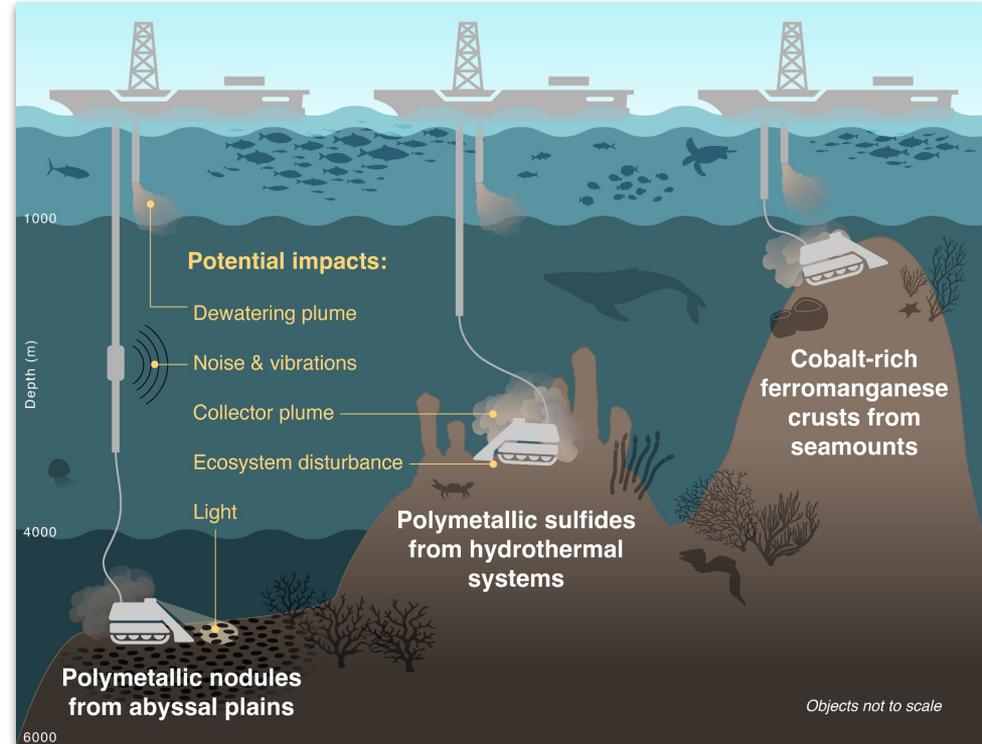
- In 1970s-1990s, NOAA conducted preliminary research on potential deep-sea mining impacts and concluded that deep sea mining could be authorized with appropriate safeguards.
- NOAA has extensive expertise in deep-sea science and is a leader in this field.
- NOAA conducts research to better understand the deep sea marine environment and ecosystems.
- Deep-sea science work includes limited focus areas in the formation, presence, and quality of marine critical minerals, as well as broad expertise in benthic ecosystems.

NOAA DSM Research

NOAA conducts research to better understand the deep sea marine environment and ecosystems.

Collaborative Research:

- MITRE work on DSM technologies
- Interagency, academic and international research
- Deep Reach Technology/University of Tokyo - pilot mining tests in Japanese EEZ
- NMFS fisheries studies



E.O. 14285: Unleashing America's Offshore Critical Minerals Resources

Directs NOAA to:

- Explore private sector interest in seabed critical mineral exploration, mining, and environmental monitoring.
- Prioritize areas of the seabed relevant to seabed critical mineral resources for mapping purposes.
- Engage with key partners and allies on seabed critical mineral resources.
- Accelerate the review of exploration licenses and commercial recovery permits.

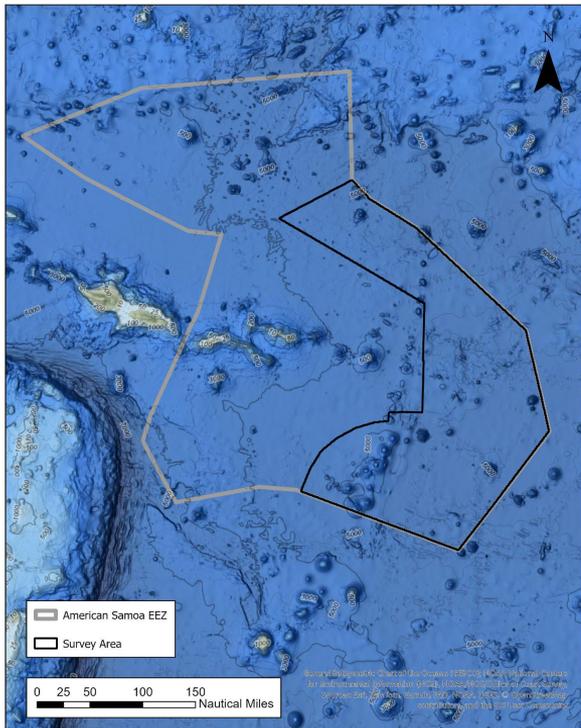
NOAA Mapping & Characterization



- Actively collaborating with DOI in response to industry interest to accelerate mapping and characterization of the seabed in the U.S. Exclusive Economic Zones (EEZs).
- Partnering with allies to map and characterize the seafloor within those countries' waters.

NOAA's Mapping Activities in support of the Mapping Plan

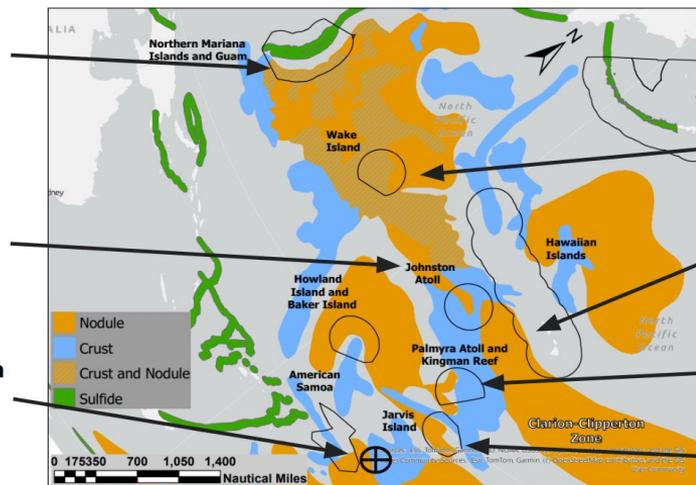
NOAA is the lead agency for seabed mapping American Samoa/U.S. Outer Continental Shelf in the Pacific identified as the highest priority



Guam/CNMI
Nautilus 2026
Saildrone 2026

Johnston
Okeanos 2026

American Samoa
NV5 2026
Okeanos 2026



Alaska
Norton Sound 2026

Wake
Nautilus 2026

Hawaii
Okeanos 2026
Nautilus 2026
Uncrewed systems 2026

Kingman/Palmyra
Rainier 2026

Jarvis
Okeanos (OE) 2026

Cook Islands Okeanos(OE) 2026

*USGS mineral potential basemap

NOAA's Objectives for the NASEM Study

- Enhance and advance knowledge of marine critical minerals and the impacts of deep sea mining.
- Synthesize peer-reviewed research to inform NOAA's implementation of DSHMRA, so that all proposed extraction methods meet federal rigorous environmental standards.
- Transition from theoretical exploration to operational reality by establishing baseline ecological thresholds supported by current oceanographic and geological scholarship.
- The NASEM study may help inform NOAA's decisions on terms, conditions and restrictions to be placed on licenses and permits particularly in regard to establishing environmental baselines, monitoring requirements, and thresholds and indicators of significant adverse effects to the marine environment.

Thank You!



For questions contact:

**Kerry Kehoe, Kathryn Malestrom, Capt. Bill
Mowitt, Victoria Moreno**