

Sanctuary Ecologically Significant Areas

Monterey Bay National Marine Sanctuary (MBNMS) is one of 13 national marine sanctuaries in U.S. Federal waters which are mandated to “maintain for future generations the habitat and ecological services of the natural assemblages of living resources that inhabit these areas.” To effectively accomplish this mandate, MBNMS staff needs a more complete understanding of the natural resources and processes occurring within the sanctuary. MBNMS encompasses a large area (4,601 square nautical miles), and with limited resources, staff often targets efforts in particular areas within the sanctuary.

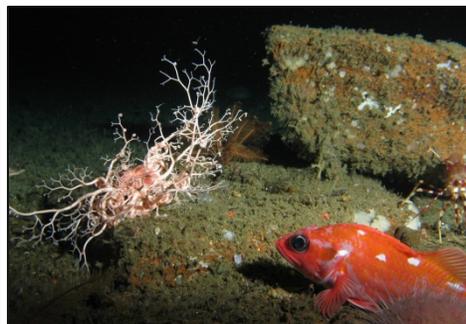
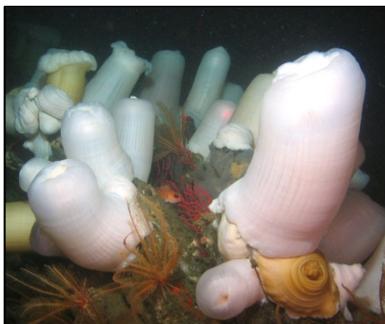
What are Sanctuary Ecologically Significant Areas (SESAs)?

Sanctuary Ecologically Significant Areas encompass remarkable, representative and/or sensitive marine habitats, communities and ecological processes. They are focal areas for facilitating research to better understand natural and human-caused variation. SESAs are not currently part of the MBNMS regulatory regime, yet are being used as a resource management tool.

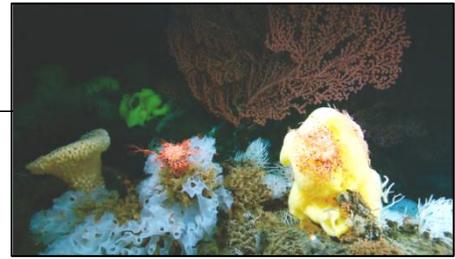
SESAs are located in **offshore Federal waters**, including portions of MBNMS to the west of state waters, and the Davidson Seamount Management Zone [see Figure 1]. Currently the SESA process is focused on **benthic habitats (the seafloor)**. In the future, the focus may expand to include pelagic habitats (the water column).

Intended Outcomes for SESAs

- Enhanced understanding and protection of benthic habitats
- Increased imagery, characterization and research of focal areas of the sanctuary
- Directed science, conservation and outreach efforts in focal areas to maximize resource protection investments and benefits
- Greater collaboration between partner agencies to leverage resources (e.g., funding, vessels, equipment)
- Targeted knowledge for emerging issues and future threats



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Why SESAs?

SESAs will be used to increase our understanding of communities and processes in focal areas, as well as improve resource protection. SESAs will support the following research and management needs:

1. Detailed information on focal areas improves our ability to adaptively manage these important resources, and serve as test cases for other areas within MBNMS. This information also prepares staff for engaging on upcoming management processes such as the NMFS 5-yr Review of Groundfish Essential Fish Habitat, as well as anticipating future potential issues including offshore energy development, offshore aquaculture, oil spills, shipping lanes, noise or climate change.
2. Targeting research and monitoring efforts in focal areas and coordinating with the scientific community. Findings from focal areas may be extrapolated to other areas within MBNMS, guiding future management decisions and policy.
3. Applied spatial management tools (such as SESAs) are needed to effectively measure and evaluate protection levels in high value habitat in preparation for the upcoming management plan review process.

Guiding Principles for SESAs

- Focus resources and efforts to understand, protect and monitor focal areas within the sanctuary
- Coordinate, collaborate, and cooperate with science partners, leveraging limited resources & streamlining permits
- Use the best available data including local knowledge from all stakeholders
- Anticipate and address changes to ocean ecosystems due to ongoing and future threats

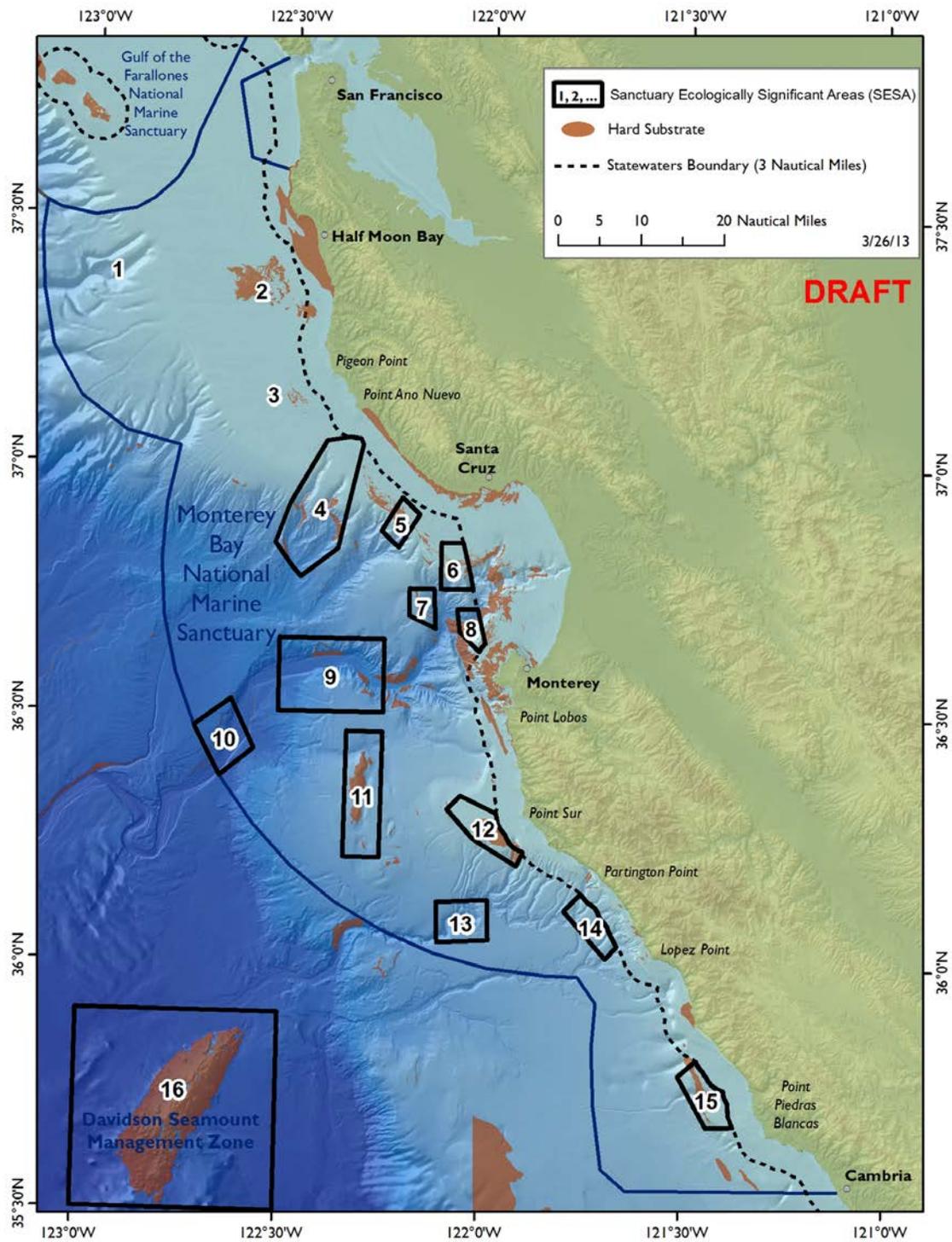
SESAs Selection Process

In order to identify SESAs, MBNMS worked with the scientists, fishermen, conservation NGOs, and other agencies to collect and evaluate over 150 layers of Geographic Information System (GIS) data. Primary and secondary criteria were identified to select areas that address multiple objectives. Primary criteria include benthic habitat identified by depth zones, substrate type, benthic structure-forming invertebrates (e.g., deep-sea corals and sponges) and locations where visual or research data have been collected. Secondary criteria include upwelling hotspots, visual imagery, stakeholder input and existing management connections. The selection process consisted of the following steps:

1. Defined SESAs and their primary objectives.
2. Compiled and synthesized the best available information.
3. Selected primary and secondary criteria, and modified based on stakeholder input. Primary criteria focused on benthic resources and/or scientific research and are directly related to the SESA definition and objectives. Secondary criteria focused on persistent pelagic features or processes, spatial management, and benthic impacts and were used to refine SESA boundaries because they influence the ecology and/or management in these areas.
4. Identified draft SESA locations using input from staff and stakeholders; requested input on missing data or information, created draft SESA map and circulated to stakeholders.
5. Launched public GIS on-line map, an outreach tool for the Sanctuary Advisory Council and others
6. Finalize SESAs.

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Figure 1 – Draft Map of Sanctuary Ecologically Significant Areas



To learn about SESAs, visit montereybay.noaa.gov