

IRA RFA Topic Area 2 Potential Project of Interest

1.b: Coordination of regional data to inform and support ecosystem condition and assessment activities for place-based management

Goal

Coordinate regional data to inform and support ecosystem condition and assessment activities for place-based management (e.g., condition reports, integrated ecosystem assessments (IEA), ecosystem status reports); host and integrate web-enabled ecosystem tracking tools with an emphasis on building out SanctuaryWatch (<https://sanctuarywatch.ioos.us/>); and contribute information directly to management programs supporting resource protection and climate resilience. The benefits of the proposed work will be to improve the collection, dissemination and use of actionable marine life and ecosystem observations data, information and services.

Project Description

Improving the collection, dissemination and use of actionable marine life and ecosystem data, information and services is critical to ensure local communities and decision-makers have the knowledge necessary for coastal resilience and to mitigate and adapt to impacts of climate and extreme events; sustain coastal and marine resource dependent communities; and effectively manage fisheries, habitats and protected areas and resources. Investments in coastal resilience or climate response should build on existing capacity and prioritize user-directed and integrated approaches, multi-use data collection and product development, and knowledge delivery that is transparent and responsive for decision support and relevant for local communities on the frontlines of change. Projects that address these needs at the pan-regional and national scale and that are developed and implemented in close coordination with NOAA programs would have significant impact to NOAA progress in this area.

Sanctuary Watch (<https://sanctuarywatch.ioos.us/>) was conceived as an ecosystem tracking and assessment platform that makes it easy to explore how marine life and ecosystem conditions are changing within National Marine Sanctuaries and to make accessible the data and information NOAA uses in decision making with regards to marine protected area designation, management and resource protection. Originally framed around ensuring access to data used in Sanctuary Condition Reports and enabling more frequent updates to Sanctuary condition information, the scope of Sanctuary Watch has expanded to track indicators for NOAA's Integrated Ecosystem Assessment program, visualize critical habitat information for the Florida Keys National Marine Sanctuary Restoration Blueprint, and visualize soundscapes from raw data collected across the Sanctuary system. The platform is web-enabled and interactive; in many cases, data on critical components of the ecosystem - habitat elements, species, human uses, etc - can be updated automatically as new data are published. The approach has been

documented in a fact sheet at <https://sanctuarywatch.ioos.us/FactSheetDec2022.pdf> and a National Marine Sanctuaries Conservation Series publication at <https://sanctuaries.noaa.gov/science/conservation/webenizing-condition-reports.html>. Importantly, data products and visualizations are co-designed with managers at each site to ensure that the information available is relevant for decision-making and outreach.

There is particular interest in strengthening linkages of IOOS regions and National Marine Sanctuary sites and advancing IOOS and Office of National Marine Sanctuaries shared priorities to:

- Expand Regional Associations (RA) involvement in and coverage of web-enabled ecosystem tracking information nationally across the Sanctuary system and for Integrated Ecosystem Assessments and NOAA biogeographic assessments (e.g., expansion of Sanctuary Watch including in regions where no Sanctuary is yet designated);
- Establish new products or thematic tiles on Sanctuary Watch, following the model of SanctSound (<https://sanctsound.ioos.us/>) to create infographics and information products visualizing the benefit of coordinated observations and data for phenomena such as Harmful Algal Blooms, Ocean Acidification impacts on marine life, etc.
- Integrate IOOS regional marine life and ecosystem data in scales, formats and types of products relevant for place-based management and decision-making;
- Increase IOOS and RA understanding of management questions and associated observing and data needs, including requirements for marine life and ecosystem observations, to support climate adaptation, resilience and modeling;
- Enhance RA access to and leveraging of Sanctuaries resources such as advisory councils, visitor centers, and education and outreach programs as opportunities to highlight RA contributions and capabilities.

We are requesting applications for projects that advance efforts to better integrate observing data into condition reports and ecosystem assessments in ways that support needs of place-based management, local communities and the public. Projects should include a focus on co-developing information products with resource managers as modeled on the Sanctuary Watch site and deliverables should include plans to host and integrate web-enabled ecosystem tracking tools with an emphasis on building out SanctuaryWatch (<https://sanctuarywatch.ioos.us/>) for new sites or themes.

For More Information or to Ask Questions

Please contact Gabrielle Canonico at gabrielle.canonico@noaa.gov with questions on this project theme or to be connected to subject matter experts in NOAA for technical assistance with this project. Please send general questions about the RFA to ioos.regions@noaa.gov.