

Overview: “NOPP 2.0” and What Constitutes Future NOPP Projects

The 25-year-old National Oceanographic Partnership Program (NOPP) is experiencing a renaissance of support in recent years spanning White House administrations and including strong bipartisan support from Congressional authorizers and appropriators¹. This interest comes from recognizing the discoveries and innovations that have been facilitated through past NOPP support and the potential for NOPP 2.0 as a mechanism to further expand the scope of potential partners outside the federal space, with particular attention on advancing public-private partnership and leveraging the recent expansion of philanthropic-based investments in ocean science through novel collaborations to tackle the large and urgent challenges facing the ocean.

This short public document, meant for both internal and external distribution, aims to codify the vision for NOPP 2.0 to focus the direction of the interagency working group on NOPP, operating on behalf of the White House-led Ocean Policy Committee, in championing future projects and to guide the reconstituted NOPP Program Office charged with supporting the program and providing opportunities for community engagement.

(IWG-NOPP, May 2023)

As a baseline, a NOPP project involves more than one federal agency in either performance or sponsorship; at least two of the three sectors of public, private, and academia; and involves coordination and review by the federal agencies involved in the project. NOPP 2.0 is ambitious in its goal to expand the scope of potential NOPP partnerships. While not explicitly stated in the authorization², Tribal Nations and Indigenous communities, non-governmental organizations, philanthropic entities, and local and State governments can and should be considered as eligible partners within the oceanographic community in the areas of science, data, technology development, resources, education, and communication.

NOPP sees value in interdisciplinary approaches. Therefore agencies that have not traditionally worked in the ocean space, but have a role in these ocean-focused topics, such as human health, transportation, infrastructure, and technological innovation, should be encouraged to participate in NOPP projects. All NOPP projects demonstrate the meaningful contributions of the participants in their conception, execution, and outcomes.

NOPP projects are typically established through a federal funding opportunity announcement, though NOPP 2.0 envisions encouraging creative approaches for meeting the above criteria. NOPP’s authorization affords the participating agencies the ability to enter into contracts and award grants using appropriated funds to resource projects that meet the goals of NOPP, as well as use other implementing mechanisms that the Ocean Policy Committee considers as appropriate, which could include memoranda of understanding, interagency agreements, cooperative research and development agreements, challenges and prizes, and any similar instruments.

¹ Recent support and attention has resulted in the reauthorization for NOPP in the FY2021, the reconstitution of the NOPP Program Office in FY2022, new NOPP appropriations for NOAA starting in FY2018, and interest in new NOPP partnerships by the Ocean Policy Committee.

² NOPP was reauthorized in the [Fiscal Year 2021 National Defense Authorization Act](#) and enacted law via [U.S. Code](#).

NOPP was primarily built to foster collaboration, coordination, and communication between federal agencies regarding ocean³ projects that span federal jurisdictions. Dedicated competitive pots of funding within the National Oceanic and Atmospheric Administration and the Office of Naval Research were formed to augment project costs, leverage interagency coordination, and help catalyze ocean initiatives. However, the overall scope of NOPP-designated projects need not be constrained by NOAA's and ONR's limited dedicated NOPP funding; the spectrum and size of potential partnerships between federal agencies and external collaborators can greatly expand the capability and reach of NOPP. NOPP Interagency Working Group (IWG) members, and potential external NOPP partners, are encouraged to pose ideas for potential NOPP ocean initiatives early in the ideation and development stage and to participate using other authorized funds where mission space and outcomes would be leveraged through partnerships.

Objectives for Moving Forward in New Ways

The summary of the White House Summit on Partnerships in Ocean Science and Technology⁴, the report on Opportunities and Actions for Ocean Science and Technology (2022-2028)⁵, and the Ocean Climate Action Plan⁶, which all identify several cross-cutting ocean priorities, target the need for developing partnerships with the private sector, philanthropy, academia, and non-governmental organizations, and in doing so, recognize the need to enhance and support existing and new partnership mechanisms through NOPP. Realizing that the ocean-related projects and ideas themselves drive NOPP partnership participation, the IWG members have a frontline responsibility to help implement the recommendations and directions from the Ocean Policy Committee and Congress, which include but are not limited to:

Expand Scope of NOPP Projects

- Collaborate with other federal ocean-related interagency working groups (i.e., Ocean and Coastal Mapping, Ocean Sound and Marine Life, etc.), which already coordinate on subject-matter-focused projects as part of their portfolios, to help drive interdisciplinary support, expand federal and non-federal partnerships, and elevate project attention. This effort also requires reaching down and across member agencies to find the right champions and subject matter experts to drive successful projects.
- Continue expanding the scope of projects considered within the NOPP-IWG forum to include larger projects that are often fully funded by one ocean agency but actually have a shared need across government, academia, philanthropy, and industry. Far too often, one agency has the burden of carrying the budget request and executing the funding for a large ocean project when many federal and non-federal partners in the community also have a direct stake in its success. By channeling these larger single-agency projects through NOPP, other federal agencies can serve as

³ Consistent with the Ocean Policy Committee, "ocean" includes the open ocean, coasts, estuaries, coastal watersheds, and Great Lakes.

⁴ Ocean Policy Committee (2019) Summary of the 2019 White House Summit on Partnerships in Ocean Science & Technology. <https://trumpwhitehouse.archives.gov/wp-content/uploads/2019/12/Ocean-ST-Summit-Readout-Final.pdf>

⁵ Subcommittee on Ocean Science and Technology (2022) Opportunities and Actions for Ocean Science and Technology (2022-2028). <https://www.whitehouse.gov/wp-content/uploads/2022/04/03-2022-SOST-Opportunities-and-Actions-for-Ocean-Science-and-Technology-2022-2028.pdf>

⁶ Ocean Climate Action Plan. https://www.whitehouse.gov/wp-content/uploads/2023/03/Ocean-Climate-Action-Plan_Final.pdf

a coalition and contribute to the success of these large projects by identifying shared risk, coordinating messaging, avoiding duplicative efforts, recognizing a project's expansive user community more clearly, and, by extension, broadening its impact.

Expand Participation and Partnerships

- Expand government participation beyond the federal sector that incorporates State, Local, and Tribal participation for appropriate projects with cross-jurisdictional parameters.
- Conduct regular and meaningful consultations with Tribal officials and Indigenous, Alaska Native, Pacific Islander, and Native Hawaiian communities officials in developing ocean science and technology projects.
- Enhance long-term partnership strategies by further articulating the "use" of science and technology applications to better manage the ocean for federal and non-federal decision-makers. Establishing relationships with stakeholders outside the Federal government, including Tribes, states, maritime industries, and local communities, will improve understanding of how NOPP-coordinated projects can help inform their decision processes.
- Incorporate best practices from federal agencies to increase participation by disadvantaged and historically excluded groups in the ocean community by strengthening existing partnerships or creating new partnerships with Minority Serving Institutions (MSIs), Historically Black Colleges and Universities (HBCUs), Tribal Colleges and Universities (TCUs), Hispanic Serving Institutions (HSIs), and Asian American, Native American and Pacific Islander Serving Institutions (AANAPISIs). Use these partnerships to create pathways for early ocean STEM engagement and retention of diverse talent.

Highlight Benefits and Outreach to End Users

- Leverage emerging opportunities to highlight U.S. ocean science and technology leadership. Strengthen the U.S. ocean science and technology enterprise globally, such as through supporting U.S.-led efforts related to the United Nations Decade of Ocean Science for Sustainable Development.
- Encourage NOPP projects to articulate potential broader impacts of the project, such as benefits to individuals, communities, or institutions who have been historically excluded from sciences or the benefits of scientific knowledge; long-term plans for engagement with partners or local communities; and connections between researchers and the end users of scientific products/services. Such impacts should be formulated during the planning stages of projects, engaging external partners and potential audiences on the front end, not as an afterthought on the back end.
- Encourage NOPP projects to create, archive, and serve data that meet FAIR⁷ principles of Findability, Accessibility, Interoperability, and Reusability, and CARE⁸ principles of Collective benefit, Authority to control, Responsibility, and Ethics. Encourage projects to create metadata

⁷ <https://www.nature.com/articles/sdata201618>

⁸ <https://www.gida-global.org/care>

that meets DCAT⁹ and DCAP-AP¹⁰ standards for findability on Data.gov, and encourage all principal investigators and authors to create an Open Researcher and Contributor ID (ORCID) so NOPP projects can receive recognition for their contributions.

- Evaluate the program’s annual and historical awards to assess portfolio balance among institutions, geography, principal investigator personal demographics, and other criteria to understand the diversity and reach of NOPP.

Considerations for Implementation

Meeting these new objectives and achieving the expectations of NOPP supporters in the Administration and Congress means broadening our participation and moving out in new or non-traditional ways. Some recommendations require actions by each agency; others involve leveraging the new NOPP Program Office. Considerations include:

- The NOPP Program Office is contracted to host two forums each year to engage the broader ocean community on specific topics directly. Federal agencies, through the IWG-NOPP, should provide the office with focused forum topics versus a broad call for input to enhance the valuable actions and recommendations of the forums. These forums would benefit from an expanded partnership network that involves non-federal and non-traditional partners. While most partnership participation will be topic-driven, organizing one forum specifically to engage philanthropic organizations in ocean science and technology on emerging federal projects and opportunities could be useful.
- NOPP-sponsored forums should strive for a diverse group of participants and ensure an inclusive environment, and the NOPP-IWG members should consider supporting invitational travel for participants from diverse backgrounds to attend NOPP forums, particularly from disadvantaged and historically excluded groups in the ocean community.
- The content and requirements within NOPP opportunity announcements should be revisited, which could include, among other changes, integrating work-based learning opportunities for students and early-career ocean community partners in NOPP opportunity announcements.
- All federal agencies could better actively leverage intra-departmental or interagency relationships with non-ocean programs that could help to either broaden project participation with non-traditional partners or provide novel financial mechanisms for moving funds. This occurs on an agency-by-agency basis. One example is that NOAA could take better advantage of working with other bureaus within the Commerce Department, such as NIST, EDA, MBDA, and NTIA, that already develop public-private partnerships, facilitate tech transfer, and work with local communities on economic development projects and research incubators.

⁹ U.S. based Data Catalog Vocabulary, or DCAT-US Schema v1.1, follows Project Open Data Metadata Schema guidelines. <https://resources.data.gov/resources/dcat-us/>

¹⁰ The Data Catalogue Vocabulary Application Profile for data portals in Europe. <https://joinup.ec.europa.eu/collection/semantic-interoperability-community-semic/solution/dcat-application-profile-data-portals-europe/about>

- Though options may be limited, NOPP agencies could expand the scope of known financial vehicles for transferring funds outside individual federal programs to support NOPP projects more quickly and directly and try to overcome the lag and disconnect caused by incongruent financial transfers between agencies. Agencies should also look beyond grants and contracts, including, but not limited to, Other Transfer Authorities and innovative funding mechanisms within our agencies and parent departments to move funds more creatively. Furthermore, better leveraging non-monetary contributions and in-kind services between agencies, such as sharing science and technical personnel, maximizing research platforms, and collaborating on components of a project's data pipeline (including archives), must always be considered.
- Before creating new MOUs and CRADAs with philanthropic vessel operators, the IWG should inventory what agreements already exist and with whom. While these agreements are specific between one agency and one operator and typically do not transfer funding, NOPP projects involving the agreement's agency can potentially leverage resources and in-kind services, especially valuable ship time, to deploy gear and collect samples and support other at-sea activities.