REQUEST FOR STATEMENTS OF INTEREST

PROJECT TO BE INITIATED IN 2023

Project Title: Marine Species Density Update for the Arctic Study Area

Responses to this Request for Statements of Interest will be used to identify potential investigators for a project to be funded by the Department of the Navy (DoN) Naval Facilities Engineering Systems Command Atlantic (NAVFAC LANT). NAVFAC LANT seeks to develop updated spatially explicit, density data layers[1] for marine mammals that occur throughout the Navy's Arctic Training and Testing Study Sea. The authority for this Cooperative Agreement is 16 USC §670c-1 (Sikes Act).

This proposed project contributes to the objectives of the Alaska CESU by creating a collaborative partnership between academic and federal partners that delivers high quality science and human expertise in Alaska's unique cultures and ecosystems to federal resource management, environmental and research agencies that have responsibilities or interest in northern latitude issues. The proposed project also contributes to the objectives of the Piedmont-South Atlantic CESU by facilitating collaboration among university, non-governmental organization and federal partners to provide relevant research, education and technical assistance for stewardship of cultural and natural resources.

Background:

The DoN is part of the Department of Defense, which is a participant of both CESU Networks. The DoN is responsible for compliance with a suite of federal environmental and natural resources laws and regulations that apply to the marine environment, including the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), the Magnuson-Stevens Fishery Conservation and Management Act, the Marine Protection, Research and Sanctuaries Act (MPRSA), Clean Water Act (CWA), and the National Environmental Policy Act (NEPA)/Executive Order 12114 (EO 12114). Additionally, Federal activities that have the potential to affect the state coastal zone are required to be consistent with respective state coastal zone management plans mandated by the Coastal Zone Management Act (CZMA).

NAVFAC LANT has developed a database of density estimates for MMPA and some ESA-listed marine species that occur in waters where the Navy performs training and testing activities, collectively known as the Navy Marine Species Density Database (NMSDD). These estimates are maintained as spatially explicit[1] data layers and are used as inputs to determine the number of estimated acoustic exposures to protected marine species for exercise and other planning purposes, e.g., the Tactical Training Theatre Assessment & Planning (TAP) Program NEPA process. The existing density data require continual updates as more recent and accurate data sources and density modeling approaches become available. Additionally, the science of density

[1] Spatially explicit refers to a property of data that allows a user to locate information in space (e.g. a grid laid over areas of interest or a set of points on a map). These data generally take the form of files compatible with commercial and open source Geographic Information System (GIS) software, which allows visualization and analysis of spatial data. Density refers to the number of objects (in this case, marine animals) in a given area.

estimation is continually improving as new statistical methods become available for integration. Continual improvement to models is required in order to ensure that the models meet requirements for use of best available science. The use of best available science is the mandate for Navy environmental compliance efforts.

The modeling approach must accommodate varying quantities and qualities of data, spatially and temporally. A mixture of density models will likely be utilized.

In addition there have been significant lessons learned from previous rounds of modeling that should be incorporated when updating models within the NMSDD.

Substantial involvement is expected between the Navy and Cooperator when carrying out the activities specified in the scope of work and may include activities such as the Navy's involvement in the development of study methodology and priorities, data gathering, and/or analysis; review of work plans, reports and all other deliverables; and/or providing staff time to oversee and participate in the project. See the associated scope of work for details on work to be carried out by the government on each task.

Brief Description of Anticipated Work:

The goal is to update the existing NMSDD modeling framework with new data and statistical methods and to produce updated models for marine species throughout the Artic Study Area. Deliverables need to be consistent with current DoN data standards, utilize multiple data types beyond traditional surveys, and utilize advanced spatial modeling techniques at multiple scales. Models need to be developed in such a way as to be readily updateable as new data become available. Specific tasks include:

1) Integrate newly available sources of data from aerial and shipboard surveys as well as passive acoustic monitoring data into the NMSDD modeling framework and remove outdated data. Data is expected to come from multiple sources including NOAA, the Navy, state and not-for-profit agencies, and international surveys. All data must be cleaned and standardized for inclusion under a common modeling framework.
2) Create new or updated density models both within and beyond surveyed areas for marine mammal species commonly found within the Arctic. Models will cover the entire Arctic Study Area and will incorporate the data from Task 1 of the associated scope of work. Species to be modeled will be prioritized in discussion with the Navy's representative. Priorities for new and updated density models are presented under Tasks 2 and 3, respectively, of the associated scope of work.
3) Send proposed methodology and density products to the regional National Marine Fisheries Science Centers and other stakeholders and marine species experts for review.
4) Develop and maintain webservices to support DoN and public access to the completed density layers.
5) Develop a technical report for work accomplished under this contract, including documentation of all new data included in the modeling framework and detailed descriptions of the new models for the Arctic Study Area.

Materials Requested for Statement of Interest/Qualifications:
Please provide the following via e-mail attachment to:
Nicole Smith (nicole.smith100.civ@us.navy.mil)
Maximum length: 7 pages, single-spaced 12 pt. font

1. Name, CESU affiliation, and contact information
2. Statement of credentials/qualifications of key personnel
3. Project proposal to include timelines, roles and responsibilities of personnel, specific tasks to be conducted, and deliverables. Please be as specific as possible.
4. Cost estimate of the proposed work for each task to include breakdowns of labor, materials and travel, and any backup documentation. **(Note: labor shall include labor category, hourly labor rate and number of hours; materials shall include an itemized breakdown of material, quantity and unit cost and travel shall include number of persons traveling, estimated airfare or privately owned vehicle mileage, estimated rental car and estimated lodging; Pursuant to the CESU Network Federal Agency Memorandum of Understanding (30 August, 2013), application of the CESU Network system-wide indirect cost rate of 17.5% is expected.)**
5. Narrative of safety practices/procedures.

Review of Statements Received: Proposals will be evaluated based on the three factors listed below and must include the credentials of key personnel, scientific approach, and reasonableness of cost. Evaluation factors are co-equal to each other. Information submitted by the potential Cooperator must demonstrate these aspects for each associated factor or the proposal will be considered ineligible for award.

<u>Factor 1 - Credentials of Key Personnel</u>

Project Manager. This individual must have:

- Minimum of a Master's degree in Marine Science or related science disciplines such as Biology, Ecology, or Computer Science; and
- Minimum of seven (7) years of experience in a responsible position providing oversight of, support to or directly involved in marine conservation and research; and
- Experience within the last three (3) years with and/or oversight responsibility of applied research in modeling in-water density estimates of highly mobile marine animals

Technical Staff. Technical Staff must have:

- Minimum of a Bachelor's degree in Marine Science, Computer Science, or related science disciplines; and
- Minimum of three (3) years of experience in a responsible position providing oversight of, support to or directly involved in marine conservation and research; and
- Experience within the last two (2) years with and/or oversight responsibility of marine mammal research, marine spatial analysis, or system administration.

The Cooperator shall include a brief Statement of Qualifications which evidences the above qualifications for each staff member (including):
a. Biographical Sketch,
b. Relevant past projects and clients with brief descriptions of these projects,
c. Staff, faculty or students available to work on this project and their areas of expertise,
d. Any brief description of capabilities to successfully complete the project you may wish to add (e.g. equipment, laboratory facilities, field facilities, etc.)

Factor 2 – Scientific Approach

The Cooperator shall develop a proposal addressing the proposed research and management tasks listed above. The Cooperator shall describe their proposed approach and techniques to accomplish the objectives. Proposals will be evaluated by a team of technical and contracting personnel from NAVFAC LANT. This Factor will be evaluated based on:

- The use of methods demonstrated to be at the leading edge of spatial density modeling techniques, e.g. methods that are well established within the peer reviewed literature and that represent the best available science in density and habitat modeling.
- Knowledge of and access to the data needed to derive density estimates for a wide variety of marine mammals, this includes possessing existing collaborations with data providers within the Arctic region, and obtaining data sources that specifically reference line transect and passive acoustic monitoring surveys of the type used to produce spatially explicit density estimates for the species within the Arctic Study Area.
- Experience completing comparable projects such as line transect or design-based density estimates or spatial density models of comparable marine species, with a preference for projects in polar regions.

Factor 3 – Reasonableness of Cost

The Cooperator's proposal shall be analyzed to determine whether they are balanced with respect to prices and separately priced items (e.g. comparing price to proposed methods and value to the Navy based on project objectives), and for fair and reasonable pricing. Evaluations will include an analysis to determine the Cooperator's comprehension of the requirements of the solicitation as well as to assess the validity of the Cooperator's approach.

Please send responses or direct questions to:
Ms. Nicole Smith
Contract Specialist
Naval Facilities Engineering Systems Command Atlantic

6506 Hampton Blvd. Bldg. A
Norfolk, Virginia 23508
Phone: 757-322-4649
Email: nicole.smith100.civ@us.navy.mil

Timeline for Review of Statements of Interest: Review of Statements of Interest will begin two weeks from the posting date. This Request for Statements of Interest will remain open until an investigator team is selected.