

NAVFAC LIVING MARINE RESOURCES (LMR) ENVIRONMENTAL BAA

FY14 Annual LMR BAA – NEXWC

Solicitation Number N39430-14-R-1464

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Description:

This announcement constitutes a Broad Agency Announcement (BAA) for the Naval Facilities Engineering and Expeditionary Warfare Center (NEXWC or NAVFAC EXWC) under FAR 6.102(d)(2) and 35.106. A formal Request for Proposals (RFP), other solicitation, or additional information regarding this announcement will not be issued.

FAR Part 35 restricts the use of BAAs, such as this, to the acquisition of basic and applied research and that portion of advanced technology development not related to the development of a specific system or hardware procurement. Contracts made under BAAs are for scientific study and experimentation directed towards advancing the state of the art and increasing knowledge or understanding. This announcement is not for the acquisition of technical, engineering, or other types of support services.

The Naval Facilities Command, through the Living Marine Resources applied science program (LMR), is soliciting pre-proposals for efforts related to any one of the three (3) themes listed below. If invited, offerors will be asked to submit a full proposal.

Web-based submission process: Submissions should be made via the LMR website, www.lmr.navy.mil, **identifying one, and only one, of the three listed topic areas as the primary focus of the pre-proposal**. Pre-proposals and proposals will only be evaluated under one topic.

Submission Deadline: To be considered for funding in the FY15 review cycle, pre-proposals **must be received no later than 5pm, Pacific Standard Time on 16 JUNE, 2014**. If notified of selection and invited to submit a full proposal, these will be due 30 days after notification by the contracting office.

Review and Cost Information: Submitters will receive an automated email message acknowledging successful submission to the LMR website. Following a 4-6 week review and approval process, successful pre-proposal submitters will receive an email inviting submission of a full proposal, also via the LMR website. Unsuccessful pre-proposals will not receive a detailed description of the reasons for pre-proposal rejection, due to the anticipated volume of submissions. Awards to non-government entities (academic institutions, not-for-profit organizations, industry) will be in the form of contracts. A nominal award amount has not been provided because the scope of the needs varies considerably. However awards in excess of \$300K/year are unlikely given the limited budget of the LMR program in Fiscal Year 2015 and the scope of effort indicated by the three topic areas listing in this year's BAA. Applicants are strongly encouraged to use realism of cost for the proposed effort as their metric, as this will be a critical element in the review process. Otherwise meritorious pre-proposals and proposals will be rejected if cost does not accurately reflect the proposed scope of work.

The pre-proposals and proposals will be evaluated based on the following criteria, of approximately equal weight.

1. **TECHNICAL APPROACH:** The scientific/technical merits and objectives in terms of meeting the stated Need, as well as evidence that the science/technology is mature enough for a demonstration program, including any design or development work required prior to demonstration.
2. **OFFEROR'S EXPERIENCE:** This entails two specific items which should be clearly identified in the pre-proposal and proposal. A) The organization's capabilities related to experience, techniques, or a unique combination of these that are integral factors in achieving the contractor's proposed objectives. This equates to past performance, and will be assessed based on both relevance and confidence and B) NAVFAC also requires the offeror to provide their EMR and DART ratings. Safety is an integral and important aspect in all NAVFAC

work. If the offeror does not have an EMR/DART rating, they should state this and provide a narrative rationale. See NFAS 15.304.

3. PRINCIPAL INVESTIGATOR'S AND KEY MEMBER'S RELATED EXPERIENCE: The qualifications, capabilities, and experience of the principal investigator, team leader, and/or key personnel who are critical in achieving the objectives of the abstract. Principle Investigators and key personnel should be identified in the pre-proposal as such.
4. COST/PRICE: The cost relative to the proposed scientific/technical approach. For the pre-proposal phase this information may be limited to a total cost estimate by federal fiscal year (October 1 – September 30). If invited to submit a full proposal, additional guidance on cost/price information will be provided. This is not prescriptive, and can be submitted in the contractor's format. However, the same information will be required.
5. NAVY BENEFITS AND IMPACT: Expected benefits in terms of environmental impact and/or cost, projections of the number of Navy sites or facilities where the proposed technology could be deployed, and life cycle cost advantages over current approaches.
6. IMPLEMENTATION REQUIREMENTS: Identify likely Navy user(s) targeted by this effort and requirements for implementing the proposed products of this effort by the Navy.

The proposed technology or methodology shall address one of the following three topic areas.

- Hearing Measurements in a Broad Range of Marine Mammal Species (LMR N-0096-15). There are three focus areas of highest potential interest to the Navy: (1) measurements of in-air and underwater behavioral hearing thresholds need to be compared to in-air and underwater AEP (Auditory Evoked Potential) thresholds obtained from the same individual, for a variety of species. Electrode placement (i.e. subcutaneous or otherwise embedded) may be required to record evoked responses in different species (i.e. baleen whales) and different stimulus parameters will be required to obtain optimal evoked responses for the estimation of hearing sensitivity; (2) to date, there have been no broad research efforts that address variations in hearing in wild populations of marine mammals. Limited amounts of data from animals at research facilities suggest that marine mammals experience age and gender related hearing changes commonly observed in other mammal species, but it is important to confirm in wild populations the naturally occurring hearing changes with age, gender, and various states of health. There is a need to measure hearing with consistent, comprehensive AEP methods across a broad spectrum of ages, genders, and states of health in a variety of cetacean and pinniped species to better characterize population level hearing characteristics; and (3) most naval sonar systems have harmonics and other signal characteristics other than the frequency and signal characteristics used for the sonar's tactical or sensing application and these other aspects of the sound source may also affect the hearing, behavior, and physiology of marine mammals. There is a need to more accurately estimate and predict the audibility of harmonics and other secondary features of sonar signals to different marine mammal species, and the distances at which such sounds can be detected. This will enable the development of more appropriate mitigation measures to minimize the potential adverse effects resulting from exposure to complex anthropogenic sounds. Additional details about pre-proposal and proposal evaluation criteria for this topic are provided on the LMR website, under the sub-heading "Needs".
- Anticipated Duration of Effort. The nominal duration of awards under this topic is expected to be 1-3 years, culminating in peer-reviewed data reports or comparable work products.
- NOTE: Proposed efforts involving interaction with and contact with marine mammals may require a Marine Mammal Protection Act (MMPA) Research Permit and/or Department of Defense Animal Care and Use authorization. If the offeror currently possesses an MMPA Research Permit or DOD ACU documentation this information should be appended to the proposal submission. Contracts will

not be awarded without appropriate regulatory documentation in place. For further information please contact the LMR program staff at exwc_lmr_program@navy.mil.

- Density Estimation from PAM data (LMR N-0077-15). While the Navy uses Passive Acoustic Monitoring (PAM) data for many environmental monitoring and effects mitigation purposes, the ability to derive improved density estimates for species of concern at sites of high Navy interest is perhaps the most powerful and beneficial application of PAM. Density estimation from PAM data requires a level of data collection planning, metadata collection, and external calibration of detection rates that is not necessarily required for other PAM applications. This need would solicit proposals to plan a survey, collect data, and develop analyzed density data products for a selected Navy site, with the aim of developing a methodology that would be generally applicable at other Navy sites. Several different methods of using PAM to estimate local animal densities have been developed, but these have not yet been systematically explored in applied contexts most relevant to Navy needs. The solution would be to conduct a PAM density estimate, from planning to delivery of derived density maps and statistics at a site of Navy interest through the final step of incorporation into the Navy Marine Species Density Data (MSDD) archive. Sample data rights language for Navy survey data collection contracts can be found on the LMR website under the Needs section. Proposals to analyze existing data sets collected prior to the onset of the award will only be considered if the proposer is able to show that the necessary data and metadata are available to enable derivation of geospatially referenced density estimates. Preference will be given to proposals that include both study design as well as data analysis phases.

Successful proposals will be required to adhere to the data rights terms of their contract. Sample data rights text for Navy survey data collection contracts can be found in Appendix C of the Needs section of the LMR website. Modifications to the data rights text should be discussed with the LMR staff prior to proposal submission.

Offerors will also need to comply with the Ocean Observing Systems Awareness and Compatibility guidance provided in Appendices D and E. Offerors should note, however, that locations labelled in red in Appendix E as incompatible with acoustic OOS are actually considered preferred locations for demonstrations of the PAM capabilities developed under this BAA topic. Strict adherence to PAM site selection, PAM deployment notification and data custody guidance will be required. Site selection should be discussed with the LMR staff prior to submission of the proposal package.

- Anticipated Duration of Effort. One to three years.

Marine species monitoring data collection toolkit development (LMR N-0088-15). The Navy's marine species monitoring program has an immediate need for improved data collection technology to meet regulatory requirements for biological surveys and monitoring within Navy permits under the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA). As technology continues to advance, the use of new devices such as tablets, smart GPS (Global Positioning System) receivers, vessel AIS (Automated Identification System), and Geospatial Information Systems (GIS) can make data collection more efficient and analyses more powerful. Having data recording tools that are not only suited to the needs of various types of surveys but also optimized for current hardware and operating systems (i.e. tablets, iOS, Android, Win 8, etc.) will greatly facilitate data collection and management, and improve efficiency of reporting and analysis by leveraging common database structures and geographic information systems. Data protocols, formats, standards, and quality assurance procedures (QA/QC) are all items that need to be addressed with the goal of standardizing across the Navy's marine species monitoring program and ensuring consistency with generally accepted standards within the scientific community. The data recording toolkit should be capable of flexibly adding or modifying data

fields. Examples of current monitoring data fields are provided on the LMR website (www.lmr.navy.mil) in Appendix A of the appropriate Needs section. Appendix F contains guidance on data output formats. Proposals should advance the capabilities of existing platform(s) and provide more efficient geo-referenced data storage structures (e.g., relational vs. flat databases) to collect and manage marine species monitoring data. The toolkit should minimize redundancy, maximize efficiency, and encompass the variety of Navy-funded marine biological visual survey data types. The data recording toolkit should also demonstrate the realization of automating data processing, reporting, export and integration functionalities by conforming to established formatting conventions, data structure, and metadata requirements. Applicants are strongly encouraged to refer to the Needs section of the LMR website and to direct inquiries to LMR program staff (exwc_lmr_program@navy.mil) for additional information as needed. The toolkit will need to demonstrate that the solution meets U.S. Navy Marine Species Monitoring program needs in terms of functionality, customization, reliability, and user friendliness. Offerors should plan a phase of close coordination and interaction with Navy staff and contractors engaged in marine species data collection and application. Successful proposals will be required to adhere to the data rights terms of their contract. Sample data rights text for Navy survey data collection contracts can be found in Appendix C of the Needs section of the LMR website. Any modifications to the data rights text should be discussed with the LMR staff prior to proposal submission. LMR staff can assist with the Navy interaction plan, as needed. **IMPORTANT:** the required deliverable of this need is a stand-alone product that is capable of demonstrating its ability to meet the stipulated data entry and data output requirements. Decisions about whether to incorporate the product into Navy-owned hardware/software systems will be made subsequent to the completion of this project and will involve a different source of funds and associated Navy-unique requirements and processes for software acquisition and integration. The LMR program is not a Navy software acquisition program.

- **Anticipated Duration of Effort.** One year of toolkit development effort, followed by a 6-12 month Navy user evaluation phase is anticipated, culminating in a stand-alone data recording package that can be widely implemented by Navy staff and contractors performing marine species surveys at a variety of sites and contexts.

NOTE: An eligible pre-proposal or proposal does not guarantee a contract. Multiple contracts may result.

CRITICAL NOTE: A CONTRACTOR IS REQUIRED TO REGISTER WITH THE SYSTEM FOR AWARD MANAGEMENT (SAM). NO CONTRACT AWARD WILL BE MADE TO ANY CONTRACTOR THAT IS NOT REGISTERED. SAM.GOV MAY BE REACHED AT [HTTPS://WWW.SAM.GOV](https://www.sam.gov). The registration process may take up to three weeks. Registration is not required for proposal submission, but must be completed prior to initiation of award negotiation. To avoid delays in the award process, applicants are encouraged to initiate SAM registration early in the submission and review process. Non-government awardees will also need to provide a DUNS (Dunn & Bradstreet) number (<http://fedgov.dnb.com/webform/displayHomePage.doc>) and CAGE (Commercial and Government Entity) code (<http://govwin.com/knowledge/ccr-registration>) before an award can be made.

NOTES:

1. The preceding data should be sufficient for completing the pre-proposal form.
2. There are no solicitation documents applying to this LMR BAA. Request for a solicitation package will not be acknowledged. Those interested in participating in the LMR BAA program must follow the instructions to submit an abstract.

3. There is no commitment by the Navy either to make any contract awards or to be responsible for any money expended by the contractor before a contract award.

4. As no funding for contracts has been reserved in advance, NEXWC will be sharing qualified abstracts with other Federal Government activities to seek demonstration sites and/or funding. Some Federal Government activities may employ civilian contractors to determine the applicability of an offered technology to specific projects. Technical and cost pre-proposals and proposals submitted under this BAA will be protected from unauthorized disclosure in accordance with FAR 3.104-4 and 15.207. The cognizant Program Officer and other Government scientific experts will perform the evaluation of technical proposals. Restrictive notices notwithstanding, one or more support contractors may be utilized as subject-matter-expert technical consultants in accordance with FAR 37.204. However, pre-proposal and proposal selection and award decisions are solely the responsibility of Government personnel. Each support contractor's employee having access to technical and cost pre-proposals and proposals submitted in response to this BAA will be required to sign a non-disclosure statement prior to receipt of any pre-proposal or proposal submissions. An offeror may require the non-government personnel to execute a supplemental non-disclosure agreement by including a copy of their institutional NDA with their proposal. However, note that a failure to come to an agreement may impact the ability to make an award. Please review FAR 37.204 and NFAS 15.303(d)(4). Eligibility notification will be sent to all contractors who have submitted an abstract, after the Technical Review Committee (TRC) and Living Marine Resources Advisory Committee (LMRAC) have reviewed all pre-proposals submitted by the solicitation cut-off date.

5. For questions regarding this BAA, contact NAVFAC EXWC at (805) 982-4853 or (805) 982-5872 or via this e-mail address: exwc_lmr_program@navy.mil. Correspondents are advised not to include Personally Identifiable Information (PII), business proprietary, or competition-sensitive information via email. The contractor should expect to receive notification of receipt of the abstract by the Government within one week of submission. If the contractor does not receive a notification of abstract receipt, the contractor should call or e-mail NEXWC by using the phone number or e-mail address provided in this section.

6. Historically Black Colleges/Universities and Minority Institutions (HBCU/MI) will be recognized according to DFARS 226.3. All responsible sources from academia and industry may submit proposals. No portion of this BAA will be set aside for HBCU and MI participation, due to the impracticality of reserving discrete or severable items of this research for exclusive competition among the entities. Federally Funded Research and Development Centers (FFRDCs) including Department of Energy National Laboratories, are not eligible to receive awards under this BAA. However, teaming arrangements between FFRDCs and eligible principal bidders are allowed so long as they are permitted under the sponsoring agreement between the Government and the specific FFRDC. Naval laboratories and Warfare Centers as well as other DOD and civilian agency laboratories are not eligible to receive awards under this BAA and should not directly submit white papers or full proposals in response to this BAA. If any such organization is interested in one or more of these program areas, they should contact the NEXWC program office to discuss its interest. As with the FFRDCs, these organizations may team with other responsible sources from industry and academia that are submitting proposals under the BAA. University Affiliated Research Centers (UARC) are eligible to submit proposals under this BAA unless precluded from doing so by their DOD UARC contract.

7. Do not call the Contracting Office for verification. The pre-proposal is not received by the Contracting Office.