North Pacific Marine Research Institute
Special Request for Proposals

Arctic Data Synthesis and Research Needs

SUMMARY

The North Pacific Marine Research Institute (hereafter, the "Institute"), administered at the Alaska Sea Life Center by the North Pacific Research Board (NPRB, or "the Board"), is seeking proposals to synthesize existing data related to marine ecosystem structure and function, including humans (i.e. biological, physical, sociological, traditional, etc.) from the Chukchi and Beaufort seas and the Bering Strait north of St. Lawrence Island. Proposals must also include a specific effort to identify research needs in order to inform the design of future marine ecosystem studies in the Arctic.

BACKGROUND

The Institute was established to conduct research and carry out education and demonstration projects on or relating to the North Pacific marine ecosystem. The Institute will provide financial support, with the Alaska SeaLife Center as its fiscal sponsor and will use NPRB to provide administrative support to include proposal review, project selection, and program oversight.

The Institute, with the assistance of the National Science Foundation (NSF), is seeking to further our understanding of the marine ecosystem in the Bering Strait and Arctic Ocean (Chukchi and Beaufort seas). During the first phase, the Institute and NSF are interested in a synthesis of existing scientific and traditional knowledge of the marine ecosystem in the Bering Strait and Arctic Ocean and an identification of research needs to help plan potential, upcoming research programs by the Institute, NPRB, NSF, and other organizations.

The ecosystems of the Arctic Ocean and northern Bering Sea are less well known than other marine regions in Alaska because their remoteness and extensive seasonal ice cover interferes with physical and biological sampling. The bio-physical system, human activity, and human-ocean interactions are changing. As a result, an increasing number of studies are being conducted in the U.S. Arctic, the majority of them as individual projects. To begin to understand the Arctic marine system as a whole, however, there is an urgent need to integrate and synthesize the present state of knowledge. The goal of such a synthesis is to characterize the current marine system, to provide information against which to observe and understand ongoing and future changes, and to inform future coordinated, integrated, multi-disciplinary and multi-institutional research initiatives.

Several Arctic syntheses have been carried out in the past (e.g. NRPB project 503, http://doc.nprb.org/web/05_prjs/503_final.pdf), and some group-specific data syntheses are currently ongoing or about to start (e.g. Synthesis of Arctic Research (SOAR) Physics to Marine Mammals in the Pacific Arctic http://www.alaska.boemre.gov/ess/ongoingStudies/PSPO_1105.pdf and the Chukchi Sea Environmental Studies program www.fairweatherscience.com). There is, however, still a need for a comprehensive synthesis that works from and with these past and existing efforts and also includes all of the data recently collected by the Bureau of Ocean Management (BOEM) and the oil and gas industry, as well as all relevant historical studies. Even though the focus of this effort is on the U.S. waters, it would be helpful, where possible, to also take into account international arctic research and monitoring efforts, especially those undertaken by Canada and Russia. In addition, it is imperative that this synthesis be

system-wide, rather than discipline-specific, and includes integration among disciplines to discern and characterize linkages between bio-physical observations and the human socio-economics of Arctic communities. This analysis must also consider spatial and temporal scales needed and appropriate for future ecosystem-level research.

Future research in the Arctic will benefit from a comprehensive synthesis and identification of research needs that will take an integrated approach, and plan to use the results of this project to help inform a broader collaborative Arctic ecosystem research initiative within the next two years. As such, it is the expectation that this Request for Proposals (RFP) will inform this broader planning effort in a timely manner.

FUNDING

With financial support from Shell and ConocoPhillips, technical assistance from NSF, and administrative support from NPRB, the Institute, is releasing this Request for Proposals with a total anticipated budget of $1.45 million available for the duration of the project (see specific timelines below). We anticipate funding only one comprehensive and fully integrated effort.

DEADLINE

All required proposal components must be submitted via email to Danielle Dickson (Danielle.Dickson@nprb.org) by 4 p.m. Alaska Standard Time on **Friday, March 9, 2012.**

FORMAT

Applicants must submit the following documents:

1) Research Plan **in Microsoft Word format** not to exceed 12 pages, using **Times New Roman 11 point font** and **1 inch margins** (see details below),
2) Results of Previous NPRB Projects
3) Budget summary,
4) Budget narrative,
5) Current and pending support form for each investigator,
6) Two-page C.V. for all Principal Investigators and Co-Investigators involved in the proposal,
7) Alphabetical list of co-authors and collaborators in the past four years (for all PIs and co-PIs),
8) Letters of support, data-sharing agreements, MOAs, etc. as applicable.

Research plans for this RFP must follow the structure outlined in the "Research Plan Components" section below and use the template provided on the NPRB website. All other documents (except C.V., MOAs, and letters of support) **must also** use the templates available on the NPRB website: http://arctic.nprb.org. Proposals that fail to conform to the format described in this section will be returned without review.

PARTNERSHIPS

Applicants are strongly encouraged to form partnerships with key data holders as applicable. In cases where data holders are not otherwise part of the proposal (i.e., investigators or collaborators), applicants must submit letters of support and/or data-sharing agreements to ensure data accessibility to carry out the proposed work.

The PIs will also be required to coordinate with researchers working on other synthesis projects and efforts to identify research needs related to the Arctic marine ecosystem (e.g. the Synthesis of Arctic Research (SOAR) project, http://www.alaska.boemre.gov/ess/ongoingStudies/PSPO_1105.pdf; Chukchi Sea Environmental Studies program www.fairweatherscience.com, IARPC 5-year Strategic Plan, etc.). To the extent possible, PIs should leverage funds and avoid duplication of effort.

GEOGRAPHIC SCOPE

The Chukchi and Beaufort seas and the Bering Strait north of St. Lawrence Island comprise the geographic scope of this project. Inclusion of the Bering Strait allows for the consideration of the upstream effects of the Bering Sea on the Chukchi and Beaufort seas.

ALASKA NATIVE COMMUNITIES

More than forty Alaska Native organizations, including seventeen different Village Councils, were contacted to provide input on relevant existing marine-related data for inclusion in the synthesis part of this RFP (see Appendix 1 and the data requirements as described in the Data Synthesis section on page 4 of this RFP).

Researchers involved in this study must consult with the appropriate Alaska Native communities and organizations when conducting the research needs portion of this work (see below). Coastal communities that fall within the geographic scope of this program are shown in Figure 1.

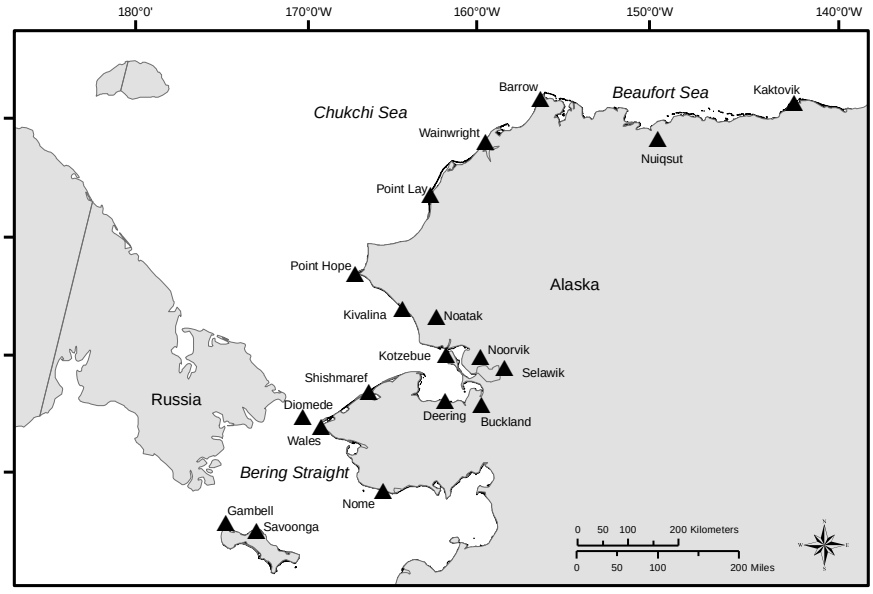

Figure 1. Coastal Alaska Native communities within the geographic scope of this RFP.

PROJECT SCOPE

The Institute is seeking proposals to synthesize existing data related to marine ecosystem structure and function, including humans (i.e. biological, physical, sociological, traditional, etc.) from the Chukchi and Beaufort seas and the Bering Strait north of St. Lawrence Island. The primary focus of the study should be on data synthesis, but must also include an effort to identify research needs in order to inform the design of future marine ecosystem studies in the Arctic.

Much of the work conducted in the past has focused on the status and trends of the physical conditions in the Arctic (especially sea ice and currents). Although an increasing number of biological studies have been conducted (see the data requirements in the Data Synthesis section on page 4 of this RFP), there is still much to be learned about the biological characteristics of this marine region, the basic relationships among physics, biology, and humans, and the general mechanisms that are key to the structure and function of this ecosystem. As such, proposed synthesis efforts and identification of research needs should include the state of knowledge of the physical, biological, and social processes, but emphasize our current understanding of ecosystem processes and key linkages that drive ecosystem structure and function. Given the strong dependency and interaction of coastal Arctic communities with the marine environment and its resources, attention should be given to the role of humans in this ecosystem.

Proposals must be divided into two main sections: (1) Data Synthesis and (2) Research Needs. Proposed work must build from past research, and collaborate with ongoing data synthesis and other relevant efforts, and, wherever possible, should leverage existing data compilation efforts (see below).

1. DATA SYNTHESIS

The Institute defines data synthesis as the collection of all relevant existing information and an analysis of these combined datasets with the aim of updating and increasing our knowledge on the current ecosystem status, trends, and processes controlling the Arctic marine ecosystem of the Bering Strait region, the Chukchi, and the Beaufort seas. The aim here is to go beyond topical compilation of data and also to combine data from different disciplines to address broader ecological questions and processes.

In this analysis and synthesis, special attention should be given to the relevant spatial and temporal scales governing key marine ecosystem processes (http://www.arctic.gov/publications/arctic_scaling.html) to enable better evaluation of the impacts of ecosystem changes, including of the role of humans, now and in the future. Results from this analysis must be able to support ecosystem level research planning. No new data collection will be supported under this RFP.

Data accessibility

Proposals must include a detailed list of data to be included in this synthesis effort, their location, status (e.g. digital, paper report), as well as their accessibility (open; restricted but have permission via a letter of support or data sharing agreement; restricted but data holder is part of proposal, etc.). Data rescue is expected to be a critical component of any funded project, and a plan for making those data accessible to the broader research community should be included.

Following is a list of data and other resources proposals should include but are not limited to:

- NPRB Project 503 Arctic Synthesis Final Report (2008): http://doc.nprb.org/web/05_prjs/503_final.pdf
- Atlas of the Chukchi and Beaufort Seas (http://ak.audubon.org/birds-science-education/arctic-marine-synthesis-atlas-chukchi-and-beaufort-seas)
- NOAA Arctic Theme page and report card: http://www.arctic.noaa.gov/data.html
- Arctic Climate Impact Assessment (ACIA, http://www.acia.uaf.edu/)
- Alaskan Outer Continental Shelf Environmental Assessment Program (OCSEAP, e.g. http://www.ngdc.noaa.gov/mgg/geology/ocseap.html)
- Russian-American Long-term Census of the Arctic (RUSALCA, (http://www.arctic.noaa.gov/aro/russian-american/)
- Shelf-Basin Interaction (SBI, http://sbi.utk.edu)
- International Polar Year (IPY 1881-1884, 1932-1933, 1957-1958, 2007-2008; e.g. http://www.arctic.noaa.gov/aro/ipy-1/index.htm, http://nsidc.org/rocs/archives-catalog/?p=collections/controlcard&id=1 , http://ipydis.org/)
- Arctic Ocean Diversity Project (ArcOD, http://www.arcodiv.org/)
- Inner Shelf Transfer and Recycling (ISHTAR) Project
- Surface Heat Budget of the Arctic Ocean (SHEBA, e.g. http://data.eol.ucar.edu/codiac/projs?SHEBA)
- Canadian Arctic Shelf Exchange Study (CASES; http://www.cases.quebec-ocean.ulaval.ca/welcome.asp),
- NOAA's Ocean Exploration (OE) http://oceanexplorer.noaa.gov/explorations/05arctic/logs/summary/summary.html
- Chukchi Offshore Monitoring in Drilling Area (COMIDA, http://www.comidacab.org/) and other BOEM funded Arctic projects (http://www.boemre.gov/eppd/sciences/esp/index.htm)
- Distributed Biological Observatory (DBO, http://www.arctic.noaa.gov/dbo/about.html)
- Joint US-Russian Bering and Chukchi Seas Expedition (BERPAC 1993, Kohl et al. 2008)
- Arctic Observing Network and the Advanced Cooperative Arctic Data and Information Service (AON-CADIS, http://www.aoncadis.org/)
- North Slope Science Initiative (NSSI, http://www.northslope.org/)
- North Slope Borough Projects (NSB http://www.north-slope.org/departments/wildlife/studiesNresearch.php)
- Impacts of Climate change on the Eco-Systems and Chemistry of the Arctic Pacific Environment (ICESCAPE, http://www.espo.nasa.gov/icescape/)
- Alaska Ocean Observing System (AOOS) Arctic Assets (http://data.aoos.org/maps/arctic_assets)
- USGS report on OCS science needs (http://pubs.usgs.gov/circ/1370/pdf/circ1370.pdf)
- Chukchi Sea Environmental Studies program 2008-2010 – ConocoPhillips Company, Shell Exploration and Production Company and Statoil USA E&P Company (www.fairweatherscience.com)
- Western Beaufort Sea Ecological Cruises (WEBSEC)
- Ocean Biodiversity Information System (OBIS, http://dbmuseblade.colorado.edu/ObisUsaTest/portal/ParticipantsAndDatasets.php)
- Alaska Monitoring and Assessment Program (AKMAP http://www.dec.state.ak.us/water/wqsar/monitoring/AKMAP.htm)
- Canada Three Oceans (C3O http://www.dfo-mpo.gc.ca/science/Publications/article/2008/17-06-2008-eng.htm)
- Bering-Aleutian Salmon International Survey (BASIS http://www.afsc.noaa.gov/ABL/MESA/archives/mesa_occ_basis.htm)

- Chukchi Acoustic, Oceanographic, and Zooplankton (CHAOZ http://www.pmel.noaa.gov/foci/operations/2010/1AE10/CHAOZ2010_CruiseReport.pdf)
- Bowhead whale feeding ecology study (BOWFEST http://www.afsc.noaa.gov/nmml/PDF/BOWFEST-2010-Report.pdf)
- Bowhead Whale Aerial Survey Project (BWASP http://www.afsc.noaa.gov/NMML/cetacean/bwasp/flights_BWASP.php)
- Emerging Dynamics of the Marginal Ice Zone (http://www.onr.navy.mil/Science-Technology/Departments/Code-32/All-Programs/Atmosphere-Research-322/Arctic-Global-Prediction/Marginal-Ice-Zone-DRI.aspx)

The Institute will use NPRB policies and procedures for proposal review and project administration. Therefore, successful applicants should be aware that they will be required to provide metadata and data records at the completion of their project. While creation of a comprehensive database to include all Arctic data is not expected as part of this project given the time frame, the Institute expects detailed documentation describing where various data reside to be one of the outcomes of this project.

2. RESEARCH NEEDS

The second component of this RFP is a comprehensive, ecosystem-wide identification of research needs that takes into account existing data, ongoing programs and desired knowledge as identified by various entities. Even though the focus of this effort is on the U.S. waters, it would be helpful, where possible, to also take into account international arctic research and monitoring efforts, especially those undertaken by Canada and Russia. This effort should result in prioritization of specific information needs, sampling methods, and spatial and temporal sampling designs to help inform future multi-disciplinary, multi-institutional marine ecosystem research programs in the Bering Strait, Chukchi, and Beaufort seas.

In addition, this effort must define and use a structured process that identifies, classifies and justifies each research need. A need should be classified in terms of the issue it addresses, how results from a project addressing the need would advance our understanding, and what ecological understanding and/or policy or management decision depends on the need.

Issues to be addressed by future programs in the Arctic may include broad-scale ecological questions such as: What key physical and biological processes govern existing energy pathways? Will productivity increase with a longer open water season? How will the timing of peak productivity change and how will it alter energy pathways? How will migration routes of marine mammals and seabirds change in space and time? How will changes in the physical environment impact Arctic Ocean flora and fauna? Will new species occupy the system and if so, will their presence and impact be seasonal or year-round? What is the basic abundance, distribution, and life-history of keystone species such as Arctic cod? And, what is the viability of the traditional way of life for humans in Arctic communities in the face of fast-paced changes in the environment as well as increased intensity of resource use in the region?

Not having answers to these and other questions has wide-ranging implications for industry development and regulation, resource management, mitigation, emergency response, social structure, and culture. Yet because of the complexity of marine ecosystem structure and function, particularly in a variable environment, these questions are difficult to answer. In the Arctic in particular, addressing them will require close collaboration and coordination among interested parties and a research approach that capitalizes on existing information to the maximum extent possible.

In formulating research needs, consultation with the appropriate Alaska Native communities and organizations is required of the researchers who will conduct the study (see Appendix 1). Coastal communities that fall within the geographic scope of this program are shown in Figure 1.

The intent of this RFP is to use the outcome of this project as input into the planning of a broader Arctic research initiative. Therefore, the identification of research needs should be initiated as soon as data are gathered. Initial input on research needs is sought within 6-8 months of project commencement (see proposal timeline below).

Proposal and Project Schedule

The tentative schedule is as follows (except for the proposal deadline, the schedule is subject to change):

Schedule Item	Tentative Timeline
Release of RFP	January 9, 2012
Deadline for proposals and letters of support	**March 9, 2012 at 4 p.m. Alaska time**
Deadline for signature pages	**March 21, 2012 at 4 p.m. Alaska time**
Technical evaluations	March – April 2012
Science Panel review	March – April 2012
NPRB Recommendation to the Institute	May 2012
Selection by the Institute	May 2012
Initial notification to PIs	May 2012
Grant agreements to PIs	June – July 2012
Commence research	June 2012 (earliest)
Initial research needs input to broader Arctic plan	January 2013
Research needs finalized	mid-June 2013
Final report due	end July 2013

All proposal review and program management on behalf of the Institute shall be administered by NPRB staff. The exact amount of funds awarded to a project will be determined in pre-award negotiations between the applicant and the Institute. Projects should not be initiated in expectation of funding until a fully executed Subaward Agreement or Memorandum of Understanding is received and the Institute has issued a Release of Funds email for the funded project. Applicants may not request a project start date before June 1, 2012.

Please note that although funds will be dispersed by the Institute, financial support of this RFP comes from industry. It is the applicants' responsibility to ensure that the internal policies of the institutions requesting funds as part the proposals can receive such funds.

RESEARCH PLAN COMPONENTS

Research Plans must be 12 pages or fewer, use Times New Roman 11 point font, and 1 inch margins.

They must include the following sections:

a) **Signed Cover Page** – Include names of applicant organization and principal/co-investigators, requested funds, and other support, and a signature of an official authorized to legally bind the submitting organization. The signature page may be submitted via fax or email (submission of the original is not required). (The cover page is not a numbered page and thus does not count towards the page limits.)
b) **Contact Information** – Include full contact information (affiliations, phone, email, and physical addresses) for principal investigators, co-investigators, and collaborators, as well as grant administrators for each organization requesting or providing funds. (This information is not a numbered page and does not count towards the page limits.)
c) **Project Title –** Include the **long title**, and a suggested **short title** of up to 60 characters.
d) **Proposal Summary** – Provide a summary of up to 250-words describing the overall proposal. Briefly describe its goals and objectives.
e) **Project Objectives –** This should be an annotated listing of your project objectives. Use a numbered, annotated list format, rather than weaving your objectives and hypotheses into paragraphs. Objectives are the fundamental and measurable goals of your proposed work; the project objectives are what will be used to evaluate progress and completion of the project. Project objectives must be achievable and specific.
f) **Technical Approach** – Provide a detailed description of the work to be performed, including goals, methods, and appropriate technical details. The list of data to be incorporated in the proposal may be included as an appendix that does not count toward the 12-page limit.
g) **Deliverables and Timelines** – Proposers must design an overlapping, phased approach divided into data synthesis and research needs analysis that will be able to deliver desired input according to the timeline outlined above. Proposals should include a clear table detailing timelines, measurable milestones (accomplishments and deliverables), and performance metrics that will be used to track the program's progress. Due to the relatively brief timeline and ambitious goals of this project, applicants should provide quarterly milestones that can be tracked by the project managers.
h) **Management Approach and Personnel Qualifications** – Describe the management structure and responsibilities of key personnel. Describe the qualifications and past experience and successes with similar or relevant projects of key personnel. Given the multi-disciplinary and synthesis nature of this project, the experience and qualifications of the lead principal investigator will be especially important. This section should clearly identify the person leading the program as well as the one acting as the project coordinator.
i) **Figures and Tables** – Figures and Tables are part of the 12-page limit and should be embedded in the text of the research plan. Note that tables should be created within your WORD document and in Times New Roman 11 point font. Also Figure legends should be part of the WORD document in Times New Roman 11 point font and not part of the figure "picture" embedded into your research plan.
j) **References –** References are part of the 12-page limit. Avoid using long strings of references for the same statements. List all references used in the Research Plan in a format appropriate for a major journal such as Fisheries Oceanography, Transactions of the American Fisheries Society, ICES Journal of Marine Science, etc.

PROPOSAL CONFIDENTIALITY

All proposals will be kept confidential until the final award is determined. At that time, the funded proposal (without salary information) will be made public. For unfunded proposals, if requested, proposal title, names of principal and co-investigators, total funding amount requested, duration, and the proposal summary may be released to the public.

PROPOSAL REVIEW PROCESS

The Institute has engaged the NPRB to review proposals, make a recommendation to the Institute, and thereafter oversee project administration in accordance. To this end, NPRB shall follow its normal policies and procedures, including its conflict of interest policies.

Initial Screening of Proposals

Upon receipt, the NPRB staff will screen proposals for conformance with requirements set forth in the RFP. This review will consider whether the proposal meets the format and structure requirements in the RFP, and assess whether it is responsive to the RFP. Proposals identified by staff as having questionable responsiveness will be reviewed by an ad hoc committee of Science Panel members and NSF representatives who will determine which of these proposals, if any, to carry forward. If the ad hoc committee cannot agree on whether a proposal is responsive to the RFP, it will move forward for full technical review. Proposals that do not comply with the requirements of the RFP or that are determined to be unresponsive will be returned without further processing. Notification of non-compliance will be sent to the proposal applicant.

Independent Technical Evaluations

Proposals that pass the initial screening will undergo independent, anonymous, technical peer review conducted by regional, national and international experts recommended by NSF. The goal of this step is to receive three independent technical reviews for each proposal. Reviewers will be asked to provide comments and qualitative assessments of the technical aspects for each proposal in each of the categories indicated below (percentages indicate the weight that the subsequent review by the NPRB Science Panel will give to the criteria), and an overall summation. Reviewers will be asked to score each section, as well as the overall summation, into one of five categories: poor, fair, good, very good and excellent.

Employees of Shell and ConocoPhillips will not be asked to serve as technical reviewers.

The technical review criteria are as follows:

a. Soundness of Project Design/Conceptual Approach ***(60%)***: Is there a clear statement of project objectives, explanation of what the project will accomplish, and why it is important? Have the applicants demonstrated a clear understanding of the problem being addressed, the present state of knowledge in the field, the project's relation to other work, including their own, and the measurable benefits that will result from the proposed work? Is there sufficient information to evaluate the project technically? What are the strengths and/or weaknesses of the technical design relative to securing productive results? Do the applicants have an adequate plan for gaining and incorporating input from Arctic communities, marine scientists and traditional knowledge holders?

b. Timeline and Milestones ***(15%):*** Is there a clear table detailing appropriate timelines and associated measurable milestones, objectives, accomplishments, and deliverables that can be used to track and

evaluate project performance through the entire award period? Is there a description of the product or result that may be used to measure project success and how the research results will be disseminated?

c. Project Management ***(15%)***: The organization and management of the project, and the project's principal/co-investigator(s) and other personnel in terms of related experience and qualifications will be evaluated. Applicants must demonstrate an awareness of, and a plan for, coordination with other synthesis and research prioritization efforts focused on the Arctic, and where possible, leverage their proposals with support from other sources. Applicants must seek to avoid duplication of other research efforts.

d. Project Costs ***(10%)***: The justification and allocation of the budget in terms of the work to be performed will be evaluated. Is the project cost unreasonably high or low?

Science Panel Review

Science Panel discussions will include participation by NSF officials. NPRB staff will assign two Science Panel members with the relevant expertise to each proposal (a Primary and a Secondary). Science Panel members generally conduct their own independent review following the same technical review guidelines above. These are completed and made available to all Panel members in advance of the Science Panel meeting. The Primary and Secondary summarize the proposal for the entire Panel, go over the evaluations by the outside technical reviewers, and, based upon that input and their own evaluation, give their overall assessment to the group. The entire Panel then discusses the proposal and its evaluations further and determines, by consensus, a tier ranking as follows:

Tier 1:
Proposals that are considered highly meritorious based on the combined peer and science panel reviews (based on the criteria outlined above) will be designated Tier 1 proposals. Highly meritorious will be defined as proposals that generally score an average of Very Good to Excellent and do not require any scientific alterations to the proposed work to go forward (although suggestions for improvements may be offered). The Science Panel may decide to go back over the Tier 1 list to determine if there are any scientific nuances amongst them that may be relevant to the Board when making their final funding decisions. Such criteria will be only science-based and may include relative comparisons between highly ranked proposals such as: more technically robust, more specifically on target with what the RFP was looking for, or more time sensitive in terms of increasing scientific knowledge base. Accordingly, proposals placed in this category may be separated into **Tier 1a** or **Tier 1b**.

Proposals that are highly meritorious as defined above but have minor non-science related issues (e.g. budget) that once fixed would place the proposal in the Tier 1a or Tier 1b category, will be categorized as **Tier 1a conditional or Tier 1b conditional** proposals respectively. In such instances, the Science Panel will clearly identify the conditions they believe need to be met before the proposal goes forward.

Tier 2:
A **Tier 2** ranking will be given to proposals that are good scientifically but not exceptional. Additionally, proposals that have minor science issues of a simple or straightforward nature, for example simple changes to sample size or study design, will be categorized as **Tier 2 conditional.** A Tier 2 proposal that has non-science issues will also be placed in the **Tier 2 conditional** category. For conditionally ranked proposals, the Science Panel will clearly identify the conditions they believe need to be met before the proposal goes forward.

Tier 3:

Proposals that are found to have fatal flaws or those that are simply not competitive scientifically even with minor changes and should not be funded, are designated **Tier 3** proposals. These will generally be proposals with some Poor and Fair ratings or those that are mixed, depending upon the issues. Tier 3 proposals are those that require substantial revision to be competitive and thus they should not be funded.

Reconciling differences between Independent Technical and Science Panel reviews

Ideally, each proposal will have been read by five technical reviewers (three peer and two Science Panel reviews). With that number of reviews, it is common that evaluations vary, sometimes greatly. Where there is disagreement between the Science Panel and the outside reviewers (in either direction), proposals and all reviews will be discussed at length by the Science Panel. The final scientific authority lies with the Science Panel which will document these discrepancies and their discussion in support of their final written recommendation to the Board (in the Science Panel Summary). The Board will also have access to all the technical reviews as well as the Science Panel Summary ahead of their meeting and thus the Board will have all of the information needed to also discuss any discrepancies in the rankings if they wish to do so.

NPRB Science Panel recommendations

Staff, Primary and Secondary panel members will take notes on the discussion of their assigned proposals. Following the meeting, the Primary, in consultation with the Secondary and any other panel member identified during the discussions, is responsible for drafting a summary paragraph for the specific proposals for the Board. This paragraph will follow a pre-determined template and be submitted to the NPRB staff within a few days of the meeting. Staff will compile all paragraphs and submit Tier 1 and Tier 2 summary paragraphs to Advisory Panel, and all summary paragraphs to the Board as soon as possible.

NPRB Advisory Panel input

The Advisory Panel is comprised of a group of stakeholders from throughout Alaska's marine regions. The Panel exists to provide a mechanism for meaningful community involvement throughout the science program from planning to oversight and review. Therefore, the Advisory Panel review of proposals is intended to highlight those proposals that have special stakeholder, community and other societal relevance and public interest value. The Advisory Panel will be provided with full proposal materials and the Science Panel summary paragraphs for all proposals that the Science Panel has determined to be responsive to the RFP and to have scientific merit. The Advisory Panel will review Tier 1 and Tier 2 proposals and provide a short summary of the attributes of a subset of these proposals that they wish to highlight as having significant stakeholder, community or other societal relevance. These summaries will be brought to the attention of the Board for consideration. It is not the intent of the Advisory Panel to comment on all Tier 1 and Tier 2 proposals, but rather to highlight those they identify as having special value to stakeholders. The Advisory Panel contribution is also not intended to rank proposals, to provide comment on the scientific merit of proposals, nor the alignment of such proposals with category budgets.

Board Review

For this project, at least one representative of NSF will participate in the discussion of proposals with the NPRB. The chair and/or vice-chair of the Science Panel will present the Science Panel summary paragraphs to the Board and be present at the meeting to answer technical questions. The Board will

consider technical evaluations, Science Panel recommendations and Advisory Panel input. The Board will use scientific merit as defined by the Science Panel rankings as their primary criterion, but may consider other factors at the time of final funding decisions. Such factors include, but are not limited to:

1. Ecosystem information needs;
2. Other projects currently funded on a similar topic;
3. Overlap with other ongoing programs;
4. Previous performance of applicants (evaluation of previous NPRB funded projects will involve project management, adherence to project budgets, timelines, and reporting requirements, as well as achievement of previously funded project objectives).

While these factors will be considered, scientific merit remains the primary consideration for proposal funding. Thus, the Board will accept Science Panel recommendations for Tier 3 proposals and will not consider them for funding. Further, if the Board decides to fund a Tier 1 conditional or Tier 2 conditional proposal, the Board will carry forward all of the Science Panel conditions. The Board reserves the right to put any additional conditions on any proposal recommended for funding. Proposals that receive conditional funding by the Board will be asked to resubmit a revised proposal that specifically addresses all concerns raised and specified during the review and decision-making process. Unless otherwise noted by the Board, staff will review the revised statements of work vis-à-vis the conditional requests and determine whether to go ahead with funding or not. Where staff does not feel comfortable making this final determination they may consult a subset of the Science Panel or the Executive Committee of the Board.

The Board will document their decision-making process, in particular where it deviates from the Science Panel recommendations. This information, as well as all technical reviews and Science Panel Summary paragraphs will be provided as written feedback to the applicants.

Institute Review and Final Selection

The Institute will make final project selections after having reviewed the NPRB recommendation. The Executive Director of the Institute will have signing authority on grant agreements, and approval of subawards and subcontracts relating to the Arctic RFP. The exact award period and amount will depend upon the requested duration of funding and the results of post-selection negotiations between the applicant and the Institute, in consultation with NSF.

Consultation with Interested Parties

Throughout the proposal review process, the Institute and NSF may consult with federal and state agencies, Alaska Native organizations, and other entities, as appropriate, that may be affected by or have knowledge of a specific proposal, or on-going project on this subject matter.

Public comment will not be taken during the proposal review and decision-making process

PROJECT OVERSIGHT

On behalf of the Institute, NPRB staff will be responsible for direct interaction with the PIs on all matters concerning the project.

Given the special nature of this project, the critical importance of data accessibility, and the need for timely results, the Institute and NSF will also establish and co-chair an advisory committee. The committee will provide advice, primarily with respect to data availability and accessibility, as well as assist with coordination with other synthesis and research efforts in the region.

Advisory Committee Scope

An Advisory Committee will be formed to help ensure data flow between the PIs and the organizations holding the data, as appropriate. The Advisory Committee will not have an oversight role. The Committee will be co-chaired by NPRB and NSF staff, and will include a representative from each of the organizations considered major holders of relevant data to be included in this project. Such organizations may include, but are not restricted to: BOEM, NOAA, USFWS, ADFG, oil and gas industry, Alaska Native Organizations (ANOs), and environmental non-governmental organizations (ENGOs).

Committee membership will be finalized as soon as proposal funding decisions have been made.

As noted, one of the critical roles of the Advisory Committee members will be to help ensure that data and metadata collected by their respective organizations, and any reports that synthesize those data, are accessible to the researchers. For example, in the case of NOAA, the Advisory Committee member will ensure that relevant data, metadata and reports from the National Snow and Ice Data Center, the National Ocean Service, the National Marine Fisheries Service, and the National Weather Service are all accessible. In the case of the Alaska Native Organization representative(s), he or she will be responsible for helping the PIs to interact with ANOs that have an interest in Arctic marine ecosystems, including all co-management organizations such as the Alaska Eskimo Whaling Commission, the Ice Seal Committee, the Alaska Eskimo Walrus Commission, and the Nanuuq Commission, as well as the North Slope Borough and the Northwest Arctic Borough.

The Advisory Committee will review quarterly reports submitted by the PIs, will participate in regular teleconferences, and will forward suggestions to NPRB and NSF staff. Advisory Committee members will assume responsibility for identifying past and ongoing marine research initiatives in the Arctic in which the organizations they represent are involved to help ensure that such projects are included in this effort.

The Advisory Committee Co-Chairs will be responsible for preparing a written report before each of the biannual Board meetings. Reports will include a summary of any issues of special concern that were discussed by the Committee since the previous Board meeting, and recommendations for action items.

GENERAL CONDITIONS

This RFP is only a solicitation of offers and should not be construed as an expectation of award, or as any reasonable basis for detrimental reliance. The Institute is not obligated to award any specific project or any available funds. There is no guarantee sufficient funds will be available to make awards for all acceptable projects, and the Institute may choose to reject all proposals. No oral statement by any person can supersede or modify the terms of this RFP.

1. All federal, state, private, and foreign organizations are eligible. Recipient organizations must have a DUNS number (http://fedgov.dnb.com/webform) and be registered in the Central Contractor Registration (CCR) system (www.ccr.gov) before any award can be made. Recipient organizations required by OMB Circular A-133 to have a single or program-specific audit will be required to submit a copy of their most recent single or program-specific audit for review before any award is made.

2. Responding proposals are firm offers and shall remain open for the Institute to accept any time before July 1, 2012. A proposal is accepted only when the Institute sends the applicant written approval and has a fully executed agreement. A proposal accepted for funding does not obligate the Institute to provide additional future funding.

3. The applicant is responsible for obtaining all federal, state, and local governmental permits and approvals for projects or activities to be funded under this announcement. This includes, as applicable, section 404 or section 10 permits issued by the Army Corps of Engineers; experimental fishing or other permits under federal fishery management plans; scientific permits under the Endangered Species Act and/or the Marine Mammal Protection Act; and assistance to the federal government in developing analysis to meet the requirements of the National Environmental Policy Act. All experiments must be conducted in compliance with law, and only pursuant to mandatory permitting duly granted by the appropriate federal and state agencies. Requirements for special permits, for example, those required for taking marine mammals, should be clearly described and indicate whether the permit is in possession or not. Failure to comply with the above may result in the cessation or termination of the project and may lead to other action that could preclude the issuance of future awards to the applicant. As a condition of funding, all award recipients must make available upon request access to any books, documents, papers and records which are directly pertinent to a specific program for the purpose of making audits, examinations, excerpts and transcriptions.

4. Projects that require at-sea research using research vessels must comply with all research vessel safety standards in accordance with the guidelines for the operation of oceanographic research vessels owned, operated or chartered by members of the University-National Oceanographic Laboratory System (UNOLS), to ensure that research at sea is conducted to the highest practicable standards of safety and prudence. Those standards also apply to chartered non-institution vessels. (See: http://www.gso.uri.edu/unols/saf_stand/contents.htm.)

5. Funded participants are wholly responsible for the conduct of research, submission of required reports, and preparation of the results for publication. Participants will be required to submit semiannual progress reports and a final report to be posted on the NPRB website and in other databases. Final reports may be submitted for peer review at the discretion of the Institute. Failure to submit timely reports or to respond to peer review comments on final reports, or to meet project objectives due to problems in program management, may result in withheld payments. Every effort should be made to submit research results for publication in an appropriate scientific journal within one year of the completion of study. The Institute may grant written exceptions if requested in a timely fashion. All manuscripts shall acknowledge that funds were provided by the Institute.

6. Any data or information produced under the Arctic RFP and supported by Institute funding, shall be made available to the public. Successful applicants will be required to provide metadata and data records at the completion of their project. Submission of metadata and data records constitutes part of the final project reporting requirements. Failure to submit such records may result in withheld payments of final project costs. Among other requirements, this policy specifies the storage media and format(s), month and location for reporting, and other relevant information that may be required by the circumstances of the project.

7. Researchers applying to do research involving human subjects are expected to demonstrate compliance with regional protocols for researcher/community interactions or the specific human subjects screening done by most academic institutions and agencies. The purpose is to ensure that privacy is protected, data are collected in a suitable manner, data are maintained in a secure environment, and results of any study are made available to participants if they indicate their interest.

8. In accordance with federal statutes and regulations, no person on grounds of race, color, age, sex, national origin, religion, marital status, pregnancy, sexual orientation, parenthood, or disability shall be excluded from participation in, denied the benefits of, or be subjected to discrimination under this program.

POINT OF CONTACT

For more information or questions regarding this RFP please contact

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Appendix 1. Alaska Native Organizations contacted for input into this Request for Proposals

Organization	Contact	Mailing Address	Email address	Phone	Fax
Alaska Beluga Whale Committee	Willie Goodwin, Jr., Chair	Alaska Beluga Whale Committee, P.O. Box 334, Kotzebue, AK 99752			907-442-2162
Alaska Eskimo Whaling Commission	Harry Brower, Jr., Chair	Alaska Eskimo Whaling Commission, P.O. Box 570, Barrow, AK 99723	harry.brower@north-slope.org	907-852-2392	907-852-2303
Alaska Federation of Natives	Julie Kitka, President	Alaska Federation of Natives, 1577 C. Street Suite 300, Anchorage, AK 99501		907-274-3611	907-276-7989
Alaska Migratory Bird Co-management Council	Mike Pedersen	Alaska Migratory Bird Co-management Council, care of North Slope Borough, P.O. Box 69, Barrow, AK 99723		907-852-0350	907-852-0351
Alaska Nanuuq Commission	Charles Johnson, Executive Director	Alaska Nanuuq Commission, P.O. Box 946, Nome, AK 99762		907-443-5044	907-443-6050
Alaska Native Knowledge Network		Alaska Native Knowledge Network, University of Alaska Fairbanks, P.O. Box 756730, Fairbanks, AK 99775	fyankn@ankn.uaf.edu	907-474-5897	
Alaska Native Science Commission	Patricia Cochran, Executive Director	Alaska Native Science Commission, P.O. Box 244305, Anchorage AK 99524		907-258-2652	907-258-2652
Arctic Slope Community Foundation		Arctic Slope Community Foundation, 3900 C St. Suite 801, Anchorage AK 99503	info@arcticslopecommunity.org	907-339-6026	907-339-6028

Arctic Slope Native Association		Arctic Slope Native Association, P.O. Box 29, Barrow, AK 99723		907-852-9368	866-890-9093
Barrow Arctic Science Consortium	Dr. Glenn Sheehan, Senior Scientist	Barrow Arctic Science Consortium, P.O. Box 577, Barrow, AK 99723	basc@arcticscience.org	907-852-4881	
Eskimo Walrus Commission	Vera Metcalf, Executive Director	Eskimo Walrus Commission, P.O. Box 948, Nome, AK 99762	vmetcalf@kawerak.org	907-443-4380	
First Alaskans Institute	Denise Morris, President/CEO	First Alaskans Institute, 606 E. Street Suite 200, Anchorage, AK 99501	DeniseMorris@firstalaskans.org	907-677-1700	907-677-1780
Ice Seal Committee	John Goodwin, Chair	Ice Seal Committee, P.O. Box 1110, Kotzebue, AK 99752	jgoodwin@nwabor.org	907-442-2500 ext. 171	
Inuit Circumpolar Council	Kelly Eningowuk, Executive Director	Inuit Circumpolar Council, 3000 C Street, Suite N201, Anchorage, Alaska 99503	kelly@iccalaska.org	907-274-9058	907-274-3861
Inuit Circumpolar Council	Carolina Behe, Traditional Knowledge/Science Advisor	Inuit Circumpolar Council, 3000 C Street, Suite N201, Anchorage, Alaska 99503	carolina@iccalaska.org	907-274-9058	907-274-3861
Iñupiat Community of the Arctic Slope	Price Leavitt, Director	Iñupiat Community of the Arctic Slope, 6986 Ahmaogak Street, Barrow, AK 99723		907-852-4227	907-852-4246
Inuvialuit and Inupiat Beluga Whale Commission	Harry Brower, Jr.	Inuvialuit and Inupiat Beluga Whale Commission, care of North Slope Borough, P.O. Box 69, Barrow, AK 99723	harry.brower@north-slope.org	907-852-2392	
Inuvialuit and Inupiat Polar Bear Commission	Taquilik Hepa	Inuvialuit and Inupiat Polar Bear Commission, care of North Slope Borough, P.O. Box 69, Barrow, AK 99723	taqulik.hepa@north-slope.org	907-852-0350	

Kawerak, Inc.	Loretta Bullard, President	Kawerak, Inc., P.O. Box 948, Nome, AK 99762		907-443-5231	907-443-4452
Maniilaq Association	Enoch Sheidt	Maniilaq Association, P.O. Box 256, Kotzebue, AK 99752		800-478-3312	907-442-7678
Maniilaq Association	Caleb Pungowiyi	Maniilaq Association, P.O. Box 256, Kotzebue, AK 99752		800-478-3312	907-442-7678
Native Village of Barrow	Thomas Olemaun, Executive Director/President	Native Village of Barrow, P.O. Box 1130, Barrow, AK 99723	tolemaun@nvbarrow.net	907-852-4411	907-852-8844
Native Village of Barrow	Joe Sage, Wildlife Director	Native Village of Barrow, P.O. Box 1130, Barrow, AK 99723			907-852-8844
Native Village of Buckland		Native Village of Buckland, P.O. Box 67, Buckland, AK 99727		907-494-2171	907-494-2217
Native Village of Diomede		Native Village of Diomede, P.O. Box 7079, Diomede, AK 99762	tc.dio@kawerak.org	907-686-2175	907-686-2203
Native Village of Gambell	Iver Campbell, General Manager	Native Village of Gambell, P.O. Box 99, Gambell, AK 99742	ivercampbell@yahoo.com	907-985-5346	907-985-5014
Native Village of Kaktovik		Native Village of Kaktovik, P.O. Box 130, Kaktovik, AK 99747	nvkaktovik@starband.net	907-640-2042	907-640-2044
Native Village of Kivalina		Native Village of Kivalina, P.O. Box 50051, Kivalina, AK 99750	kivalina@aitc.org	907-645-2153	907-645-2193
Native Village of Kotzebue		Native Village of Kotzebue, P.O. Box 296, Kotzebue, AK 99752-0296	info@kotzebueira.org	907-442-3467	907-442-2162
Native Village of Noatak		Native Village of Noatak, P.O. Box 89, Noatak, AK 99761		907-485-2173	907-485-2137

Native Village of Nuiqsut		Native Village of Nuiqsut, P.O. Box 89169, Nuiqsut, AK 99789		907-480-3010	907-480-2714
Native Village of Point Hope		Native Village of Point Hope, P.O. Box 109, Point Hope, AK 99766		907-368-2330	907-368-2332
Native Village of Point Lay		Native Village of Point Lay, P.O. Box 59031, Point Lay, AK 99759		907-833-2575	907-833-2576
Native Village of Savoonga		Native Village of Savoonga, P.O. Box 120, Savoonga, AK 99785		907-984-6414	907-984-6156
Native Village of Selawik		Native Village of Selawik, P.O. Box 59, Selawik, AK 99770		907-484-2165	907-484-2226
Native Village of Shishmaref		Native Village of Shishmaref, P.O. Box 72110, Shishmaref, AK 99772	tc.shh@kawerak.org	907-649-3821	907-649-2104
Native Village of Wainwright		Native Village of Wainwright, P.O. Box 184, Wainwright, AK 99782	j.l.childress@arcticslope.org	907-763-2726	907-763-2536
Nome Eskimo Community		Nome Eskimo Community, P.O. Box 1090, Nome, AK 99762	nomeeskimo@gci.net	907-443-2246	907-443-3539
Noorvik Native Community		Noorvik Native Community, P.O. Box 209, Noorvik, AK 99763		907-636-2144	907-636-2284
North Slope Borough Department of Wildlife Management	Taqulik Hepa, Director	North Slope Borough, P.O. Box 69, Barrow, AK 99723	taqulik.hepa@north-slope.org	907-852-0350	
North Slope Borough Mayor's office	Honorable Edward S. Itta, Mayor	North Slope Borough, P.O. Box 69, Barrow, AK 99723	edward.itta@north-slope.org	907-852-2611	

North Slope Subsistence Regional Advisory Council	Rosemary Ahtuangaruak, Barrow representative	Care of Office of Subsistence Management, USFWS, 1101 E. Tudor Rd., Mail Stop 121, Anchorage, AK 99503			
North Slope Subsistence Regional Advisory Council	Lee Kayotuk, Kaktovik representative	Care of Office of Subsistence Management, USFWS, 1101 E. Tudor Rd., Mail Stop 121, Anchorage, AK 99503			
North Slope Subsistence Regional Advisory Council	Ray F. Koonuk Sr., Point Hope representative	Care of Office of Subsistence Management, USFWS, 1101 E. Tudor Rd., Mail Stop 121, Anchorage, AK 99503			
Northwest Arctic Borough	Ukallaysaaq Tom Okleasik, Director of the Planning Department	Northwest Arctic Borough, P.O. Box 1110, Kotzebue, AK 99752	tokleasik@nwabor.org	907-442-2500 ext. 109	
Northwest Arctic Borough	John Goodwin, Sr., Traditional Knowledge Specialist	Northwest Arctic Borough, P.O. Box 1110, Kotzebue, AK 99752	jgoodwin@nwabor.org	907-442-2500 ext. 171	
Northwest Arctic Borough Mayor's office	Honorable Siikauraq Martha Whiting, Mayor	Northwest Arctic Borough Mayor's office, P.O. Box 1110, Kotzebue, AK 99752	mwhiting@nwabor.org	907-442-2500 ext. 101	
USFWS Office of Subsistence Management	Donald Mike, Regional Advisory Council Coordinator	Office of Subsistence Management, USFWS, 1101 E. Tudor Rd., Mail Stop 121, Anchorage, AK 99503	donald_mike@fws.gov	907-786-3888	907-786-3333