

**North Pacific Research Board: 2014 Request for Proposals**

**INTRODUCTION**

The North Pacific Research Board (NPRB) was created by Congress in 1997 to recommend marine research activities to the Secretary of Commerce. Approved research projects are funded through a competitive grant program using a portion of the interest earned from the Environmental Improvement and Restoration Fund. These funds must be used to conduct research activities on, or relating to, the fisheries or marine ecosystems in the North Pacific Ocean, Bering Sea, and Arctic Ocean (including any lesser related bodies of water). NPRB strives to avoid the duplication of other research activities and places priority on research designed to address pressing fishery management or marine ecosystem information needs. The Board's long-term vision is to build a clear understanding of the marine ecosystems of Alaska that enables effective management and sustainable use of marine resources.

Since 2002, the Board has released twelve requests for proposals (RFPs), resulting in the funding of 327 projects totaling \$53.3 million. Descriptions of the projects can be found at <http://project.nprb.org/>; funded projects fall into seven broad categories as shown in Table 1.

**Table 1. NPRB-supported research initiated in 2002-2013.**

<u>Categories of Research</u>	<u>Projects</u>	<u>Total Funding</u>	<u>% Funding</u>
Lower Trophic Level Productivity	59	\$8,876,170	16.7
Fishes and Invertebrates	123	\$22,199,718	41.7
Fish Habitats	21	\$4,824,876	9.1
Marine Mammals	56	\$8,799,903	16.5
Seabirds	26	\$4,597,106	8.6
Humans	25	\$2,195,299	4.1
Other Prominent Issues	17	\$1,775,238	3.3

In addition to projects funded as part of this annual RFP process, the Board also funds graduate student research awards, long-term monitoring projects, and integrated ecosystem research projects. These programs are not part of this RFP; visit the NPRB website ([www.nprb.org](http://www.nprb.org)) for more information about other NPRB programs.

**This notice constitutes the annual Request for Proposals (RFP) for projects commencing in 2014.**

Full proposals responding to this RFP are due by  
4:00 p.m. (Alaska Standard Time) on Thursday, December 5, 2013

The 2014 RFP is similar in form and content to past NPRB requests for proposals. The research priorities are structured around the 2005 *NPRB Science Plan*. Features first introduced in 2011 that are also found in this RFP include: (1) a focus section, (2) a cyclical research approach outlined in Table 2, and (3) a formal request for collaboration with other organizations that are folded into the regular RFP categories.

### **Focus Section**

While the focus section topic varies (and may not be present in every RFP), its purpose is to highlight pressing research needs for fisheries management or ecosystem understanding. This year, the Focus Section is dedicated to Arctic-Yukon-Kuskokwim (AYK) Region Chinook salmon

### **Cyclical Research Approach**

To allow for consideration of more costly projects, the Board implemented a two-year cyclical approach in 2012 that increases the funds available within specific categories each year. As a result, some research priorities are not present in the RFP every year and others are not funded at the same level every year. The current cycle covers the years 2013 and 2014 and is shown in Table 2. The Board will re-evaluate this approach in preparation for the 2015 RFP during their 2014 spring and fall meetings.

**Table 2. Planned distribution of funds over the two-year 2013 and 2014 RFP cycle. *Note: this table reflects the Board's original plan for distribution of funds for the 2013/2014 cycle and does not reflect the current funding distribution.***

	2013 Cycle	2014 Cycle
<b>1. General Research Priorities on Ecosystem Components</b>	<b>\$2,700,000</b>	<b>\$2,700,000</b>
a. Oceanography and Lower Trophic Level Productivity	\$500,000	\$ 200,000
b. Fish and Invertebrates ( <i>\$500K proposal cap</i> )	\$1,200,000	\$1,300,000
c. Marine Mammals	\$800,000	\$200,000
d. Seabirds	\$100,000	\$500,000
e. Humans	\$ -	\$200,000
f. Other Prominent Issues	\$100,000	\$300,000
<b>2. Local &amp; Traditional Knowledge and Community Involvement</b>	<b>\$200,000</b>	<b>\$200,000</b>
<b>3. Cooperative Research with Industry</b>	<b>\$400,000</b>	<b>\$300,000</b>
<b>4. Technology Development</b>	<b>\$200,000</b>	<b>\$300,000</b>
<b>5. Data Rescue</b>	<b>\$100,000</b>	<b>\$100,000</b>
<b>6. Focus Section</b>	<b>\$400,000</b>	<b>\$400,000</b>
<b>TOTAL</b>	<b>\$4,000,000</b>	<b>\$4,000,000</b>

Please note that because NPRB launched a new Long-Term Monitoring Program in June of 2013, no long-term monitoring category has been included in the 2014 RFP. In October 2013, invitations to submit full proposals will be issued to pre-proposers that were selected by the Board as having met the evaluation criteria.

**Collaboration with other Organizations**

NPRB encourages collaborative research proposals that leverage other funding sources, enhance ongoing projects, or take advantage of other logistic support. Collaborations are formally requested in the Cooperative Research with Industry category but are encouraged in all sections of this RFP. In addition, we highlight a specific formal collaboration with the Oil Spill Recovery Institute.

**Oil Spill Recovery Institute (OSRI)**

2014 is the seventh year of collaboration between NPRB and OSRI. Once again, OSRI has committed to contribute up to a total of \$100,000 for projects submitted in response to this RFP that align with OSRI's mission and goals. OSRI's mission includes the support of research, education, and demonstration projects designed to respond to and understand the impact or potential impact of oil spills in Arctic and sub-Arctic marine ecosystems. OSRI's current research plan emphasizes the biological impacts on nearshore environments. OSRI's full science plan can be found at <http://www.pws-osri.org/wp-content/uploads/2013/08/Science-Plan.pdf>.

Proposals submitted in response to NPRB priority categories that have overlapping interest with OSRI will go through a joint review process. To facilitate the process, the proposals will be distributed to the OSRI Board and its advisory bodies in accordance with their standard operating procedures (<http://www.pws-osri.org>). All proposals, regardless of potential collaborative funding through OSRI, are subject to the funding cap of the category to which they are submitted.

The topics of common interest are:

**1. General Research Priorities****a. Oceanography and Lower Trophic Level Productivity**

ii. Nearshore sea ice environments

**b. Fishes and Invertebrates**

iv. Forage species

v. Fish habitat

a) Essential habitats

**d. Seabirds**

ii. Identifying demographic and life history responses of seabirds to environmental variability, including climate change

**f. Other Prominent Issues**

ii. Coastal contaminants

iii. Toxicity of oil, dispersants and industry-associated discharges

**3. Cooperative Research with Industry****b. Oil & Gas Industry**

iii. Oil spill research in Arctic and sub-arctic marine ecosystems

**5. Data Rescue**

**2014 REQUEST FOR PROPOSALS: RESEARCH PRIORITIES**  
(Target Funding Total: \$4.25 million)

Table 3 summarizes the categories of research priorities and funding targets for the 2014 RFP. Detailed explanations of each research priority begin on page 6.

**IMPORTANT NOTES REGARDING FUNDING LIMITS:**

- The limit for individual proposal funding is equal to the category/subcategory target-funding amount, unless otherwise noted. The funding limits by category/subcategory for individual proposals are firm.
- Proposals that exceed the category/subcategory limit will not be processed and will be returned without review.
- Target funding amounts are for the entire study, NOT per year.

**Table 3. 2014 RFP - Research Priorities (target funding amounts total \$4.25 million)**

Section and Subsection Categories	Target Funding
<b>1. General Research Priorities on Ecosystem Components</b>	<b>\$2,600,000</b>
<b>a. Oceanography and Lower Trophic Levels</b>	<b>\$200,000</b>
i. Processes driving secondary production	
ii. Nearshore sea ice environments	
iii. Other oceanography and lower trophic level research	
<b>b. Fishes and Invertebrates (\$500K individual proposal limit)</b>	<b>\$1,200,000</b>
i. Stock assessment research and model development	
ii. Tier 5 rockfish	
iii. Impacts of climate change on fish and crab stocks	
iv. Forage species	
v. Fish habitats	
vi. Other fish, invertebrate and fish habitat research	
<b>c. Marine Mammals</b>	<b>\$200,000</b>
i. Retrospective studies	
ii. Other marine mammal research	
<b>d. Seabirds</b>	<b>\$500,000</b>
i. Trophic ecology of seabirds	
ii. Identifying demographic and life history responses of seabirds to environmental variability, including climate change	
iii. Conservation biology/ecology of species-at-risk	
iv. Anthropogenic impacts on seabirds	
v. Other seabird research	
<b>e. Humans</b>	<b>\$200,000</b>
i. The values of salmon systems in the Arctic-Yukon-Kuskokwim region	
ii. Climate change and coastal communities	
<b>f. Other Prominent Issues</b>	<b>\$300,000</b>
i. Zoonotic infections and biotoxins	
ii. Coastal contaminants	

iii. Toxicity of oil, dispersants and industry-associated discharges	
iv. Invasive species	
<b>2. Local &amp; Traditional Knowledge and Community Involvement</b>	<b>\$200,000</b>
<b>a. Local &amp; traditional knowledge</b>	
<b>b. Community involvement</b>	
<b>3. Cooperative Research with Industry</b>	<b>\$300,000</b>
<b>a. Fishing Industry</b>	
i. Gear modification	
ii. Fishery monitoring	
iii. Ecosystem observations and research	
iv. Energy efficiency technology	
<b>b. Oil &amp; Gas Industry</b>	
i. Species of special concern	
ii. Monitoring from platforms	
iii. Oil spill research in Arctic and subarctic marine ecosystems	
<b>4. Technology Development and Novel Applications</b>	<b>\$300,000</b>
<b>a. Molecular and laboratory-based technology development</b>	
<b>b. Marine measurement technology development</b>	
<b>c. Other technology development</b>	
<b>5. Data Rescue</b>	<b>\$100,000</b>
<b>6. Focus Section: Arctic-Yukon-Kuskokwim (AYK) Region Chinook Salmon</b>	<b>\$750,000</b>
<b>TOTAL</b>	<b>\$4,250,000</b>

**2014 Request for Proposals****IMPORTANT NOTE**

Please consult the NPRB 2005 *Science Plan* for clarification regarding the appropriate research to be conducted in each category. Proposals should demonstrate awareness of related ongoing projects; we recommend that you consult past and current NPRB-funded projects (<http://project.nprb.org/>) as well as components of NPRB-supported integrated ecosystem research that make up the Bering Sea Project ([bsierp.nprb.org](http://bsierp.nprb.org)) and the Gulf of Alaska Project ([gulfofalaska.nprb.org](http://gulfofalaska.nprb.org)). Proposals should strive to avoid duplication and should seek to coordinate with existing projects when appropriate. Cooperative research is not restricted to Section 3; collaboration is encouraged in all categories.

**1. General Research Priorities on Ecosystems Components \$2,600,000****a. Oceanography and Lower Trophic Levels \$200,000**

NPRB seeks proposals that are focused on one of the topics listed below.

**i. Processes driving secondary production**

NPRB is interested in research that examines processes that drive and maintain secondary production at the base of the food web from one year to the next. NPRB is also interested in research that examines ecosystem implications resulting from changes in community structure (e.g., a shift in the dominant calanoid copepod species). In addition, proposals that investigate rate processes (specifically, feeding, growth, reproduction and mortality of zooplankton relevant to the transfer of energy to upper trophic species) and studies of arctic zooplankton are of particular interest. Such studies are needed to understand how the system currently functions and to better parameterize biological models for predicting the ecosystem response to changing conditions.

**ii. Nearshore sea ice environments**

Climate warming affects nearshore and land-fast ice dynamics throughout the geographic extent of ice-covered waters. Significant but unquantified changes in nearshore ice dynamics influence seasonal movements and also affect the use of the nearshore environment by fish, marine mammals and birds, as well as residents who use nearshore ice for travel and subsistence activities. While some nearshore patterns are similar to changes documented in seasonal sea ice extent and patterns of seasonal retreat, the actual patterns and mechanisms that drive nearshore ice dynamics (e.g., formation, stability and degradation) differ. Studies are needed to determine detailed patterns of nearshore sea ice dynamics, to identify specific drivers or processes that affect the dynamics, and to determine appropriate techniques and scales to measure and ultimately monitor changes to nearshore sea ice. *Successful proposals under this category could be funded as an OSRI-NPRB collaboration.*

**iii. Other oceanography and lower trophic level research**

While topics described in i and ii of this category are given priority, NPRB will also consider proposals that focus on other research needs identified in Table 3-2 of the *NPRB Science Plan*, p. 48. In particular, retrospective studies are encouraged.

**b. Fishes and Invertebrates \$1,200,000**

*The funding limit for individual proposals under the Fishes and Invertebrates category is \$500,000. Also see category 3, Cooperative Research, for additional fisheries-related topics.*

NPRB seeks proposals that focus on one of the topics listed below.

**i. Stock assessment research and model development**

NPRB seeks proposals that support fisheries stock assessments. Priority will be given to studies of data-poor species, particularly those with catch-only data (e.g., North Pacific Fishery Management Council Tier 6 for groundfish and Tier 5 for crab) that have not recovered (e.g., Pribilof Islands blue king crab), or those that are non-target species likely to reduce target species harvest. Additionally, proposals with the goal of improving stock assessments by providing data such as current estimates of life-history parameters (e.g., growth, maturity and fecundity), handling mortality, or migration are of particular interest. Proposals must justify the usefulness of the parameters to be investigated and must clearly demonstrate the link to current fisheries management issues. Studies of survey design (e.g., the effects of environmental conditions on survey catchability,  $q$ ) are also of interest to NPRB. Proposals that include model development must characterize uncertainty and assess its influence on model outputs.

**ii. Tier 5 rockfish**

The North Pacific Fishery Management Council (NPFMC) categorizes the information available on each groundfish stock into one of six tiers. In the NPFMC precautionary tier system, Tier 1 includes species with the most known biologic information and Tier 6 represents species with the least amount of information. Allowable Biological Catch (ABC) and overfishing level (OFL) recommendations for groundfish stocks are based on the Tier 5 harvest control rule when the available data include a reliable biomass estimate and an estimate of natural mortality. The fishery is managed conservatively to prevent overfishing ( $F_{ABC} \leq 0.75 \times M$ ). However, it is impossible to determine if a stock is overfished or approaching an overfished condition without an estimate of the biomass that produces maximum sustainable yield ( $B_{MSY}$ ) or proxy thereof (e.g.,  $B_{35\%}$ ). This estimate is needed to determine if the stock is above the minimum stock-size threshold, which is a function of  $B_{MSY}$  or its proxy. To estimate a target biomass reference point such as  $B_{35\%}$ , life history information (i.e., age, growth and maturity schedule) is needed to estimate spawning biomass-per-recruit.

Rockfish are a high priority for this research because of their relatively low productivity and somewhat high susceptibility to overfishing. Tier 5 rockfish species of primary interest in Alaska waters include: shortraker, shortspine thornyhead, harlequin, redstripe, redbanded, widow, and yellowtail rockfish. Obtaining basic life history information for some rockfish species has been problematic. In some cases the difficulty has been due to an inability to assign maturity state during the summer when the bottom trawl surveys occur. In other cases, the difficulty is related to challenges in age estimation. More focused studies to collect and analyze maturity-at-age data for Tier 5 rockfish are sorely needed to address management questions relative to sustainability. Of particular interest are studies that reduce uncertainty in Tier 5 rockfish management by filling in the gaps in essential life history information as well as information necessary to support upward movement from Tier 5.

**iii. Impacts of climate change on fish and crab stocks**

Although climate change is thought to impede the rebuilding of certain crab stocks, further research is required to understand how climate variability affects populations of fish and crab. NPRB is interested in studies that focus on climate change impacts on stocks (e.g., changes in bottom temperatures, larval survival, predator-prey relationship changes, food scarcity, benefits to competitive species, ocean acidification). More information about how these factors impact growth and physiology of target crab and groundfish species could improve predictions of climate change effects on fish. Proposals should include research conducted in the context of historical and current fishing removals.

**iv. Forage species**

NPRB seeks proposals that will improve understanding the ecology of forage species in Alaska marine ecosystems. Proposals should focus on ecological characteristics important to predators, such as determinants and variability of distribution and abundance, school density, recruitment, and availability. Species of particular interest include: sand lance, capelin (and other marine smelts), lanternfishes, squid, herring, Arctic cod, and juvenile pollock. *Successful proposals under this category could be funded as an OSRI-NPRB collaboration.*

**v. Fish habitats**

Additional research is needed to improve knowledge of the characteristics and importance of fish habitats, including strategies for mitigating human impacts and environmental change.

**a) Essential habitats**

NPRB seeks proposals for research on habitat use by forage fish species and other managed fish and invertebrate species; in particular NPRB seeks proposals on habitats used by Pribilof Islands and St. Mathew Island blue king crab. More data are required to identify habitat and map the distribution of various substrates and habitat types (e.g., habitat-forming biota, infauna and epifauna). In addition, an improved understanding of habitat requirements (e.g., measures of habitat characteristics such as sediment size, exposure, temperature, algal cover) for forage fishes and other managed fish and invertebrate species is needed. NPRB is interested in proposals that seek to identify the areas and habitats that contribute most to the survival, growth, recruitment, and productivity of key fish and invertebrate species. *Successful proposals under this category could be funded as an OSRI-NPRB collaboration*

**b) Bering Sea slope deep-sea corals**

Deep-sea corals may be important habitat for managed fish and invertebrate species and may also be vulnerable to damage by fishing gear. NPRB is interested in studies determining the distribution, abundance and physical characteristics of deep-sea corals on the eastern Bering Sea slope. Research may involve fieldwork in previously un-surveyed or under-surveyed areas of the slope (including canyons) or analyses of existing data. Proposals that seek to validate model projections of coral distribution/abundance are welcome. Of particular interest are studies that provide information about physical characteristics that is useful for comparing Bering Sea slope deep-sea corals to those in other areas. Also of interest is information about physical characteristics of Bering Sea deep-sea corals that may inform fisheries management considerations, such as gear modification.

**vi. Other fish, invertebrate and fish habitat research**

While the topics described in i through v of this category are given priority, NPRB will also consider proposals that focus on other research needs identified in Tables 3-3 and 3-4 of the *NPRB Science Plan*, p. 62 and 79, respectively. In particular, retrospective studies are encouraged.

**c. Marine Mammals****\$200,000**

NPRB seeks marine mammal proposals focused on the topic listed below. *Also see f. Other Prominent Issues (in this category) and category 3, Cooperative Research with Industry for other related research topics.*



**i. Retrospective studies**

NPRB is interested in retrospective studies that make use of existing marine mammal data and archived samples. Priority will be given to proposals that study archived samples from marine mammal species in geographic areas of concern or of particular management importance. Proposals should describe the utility of the dataset to current and relevant science and management questions.

**ii. Other marine mammal research**

While the topic described in i of this category is given priority, NPRB will also to consider proposals that focus on other research needs identified in Table 3-9 of the *NPRB Science Plan*, p. 94.

**d. Seabirds****\$500,000**

NPRB seeks proposals directed toward the study of seabirds focused on one of the topics listed below. *Also see other seabird-related topics in category 3, Cooperative Research with Industry.*

**i. Trophic ecology of seabirds**

NPRB is interested in proposals that address the trophic ecology of seabirds and research that elucidates linkages between seabirds and the structure and function of the ecosystems they inhabit. Proposals should focus on abundant species; proposals should provide a clear rationale for the selection of study species (or assemblage of species) and their ecological importance. Species of particular interest include: northern fulmars, murres, tufted puffin, and abundant species of storm petrels and auklets. Proposals focusing on less-studied species are encouraged.

**ii. Identifying demographic and life history responses of seabirds to environmental variability, including climate change**

Seabirds are integral members of the marine ecosystems. They may serve as sensitive and cost-effective indicators of ecosystem state and dynamics. NPRB seeks proposals identifying demographic and life history responses of seabirds to environmental variability. Candidate species for study include 1) those suitable for future long-term monitoring programs utilizing seabirds as indicators, and 2) those potentially vulnerable to climate change. A clear rationale for selection of study species should be presented in the proposal. *Successful proposals under this category could be funded as an OSRI-NPRB collaboration*

**iii. Conservation biology/ecology of species-at-risk**

Many species of marine birds of the North Pacific have undergone precipitous and unexplained population declines in recent decades. NPRB requests proposals that seek to understand the impacts of current threats to such species and populations. NPRB is also interested in proposals for research that provides information relevant to conservation of these species. Proposals should focus on seabird species of North Pacific listed under the Endangered Species Act and/or those designated as species of conservation concern by management agencies or international conservation organizations.

**iv. Anthropogenic impacts on seabirds**

NPRB seeks proposals that investigate impacts of anthropogenic influences on seabirds. Examples of potential influences include plastic pollution/marine debris and discards/offal from fish processing facilities. Proposals may address topics including, but not limited to: sources, mechanisms, and/or population effects of anthropogenic influences that potentially impact seabirds in Alaska waters.

**v. Other seabird research**

While the topics described in i through iv of this category are given priority, NPRB will also consider proposals that focus on other research needs identified in Table 3-12 of the *NPRB Science Plan*, p. 110. In particular, retrospective studies are encouraged.

**e. Humans****\$200,000**

NPRB encourages potential respondents to review the white paper recently commissioned by NPRB on the state of social sciences in natural resource management (<http://www.nprb.org/science/SocialScience.html>). NPRB seeks proposals that explore the application of social science theory, methods and data to a specific natural resource management context. NPRB is specifically interested in demonstrations of social science analyses (particularly those employing qualitative or ethnographic data) related to issues of fishery management and ecosystem change. Proposals should address the challenges of integrating social and natural sciences (including qualitative and quantitative analyses) in meaningful ways; however, NPRB is not looking for a quantitative modeling exercise. Specific issues of interest include:

**i. The values of salmon systems in the Arctic-Yukon-Kuskokwim (AYK) region**

Chinook salmon stocks in the AYK region have been in decline for roughly a decade. The decline of these stocks has significant social, cultural and economic effects on the fisheries and the peoples of the AYK region. The ongoing decline confounds the management of a wide range of fisheries in the Bering Sea and associate river systems.

NPRB is particularly interested in proposals that address one or more of the following questions: 1) What are the values to humans provided by salmon? How are human-salmon relationships affected by changes in salmon abundance or availability?; 2) What do families, communities, cultures, businesses and commercial fishermen receive from salmon? Proposals should seek to investigate economic, social, cultural, spiritual, generational, community and other values that salmon provide; examination of various values provided by salmon will make it possible to explicitly consider value tradeoffs when decisions are made that affect salmon and people.

**ii. Climate change and coastal communities**

NPRB is interested in studies that address the current and future effects of climate change on coastal communities. NPRB is also interested in studies that address the adaptive capacities of coastal communities. Changes in accessibility to fish, birds and mammals for harvest are currently affecting communities and social structures. Changing weather patterns coupled with increased storm severity and coastal erosion are having effects on community stability and safety. NPRB seeks proposals that employ social science theory, methods and data to assess the effects of rapid change on, and the resiliency of, the people and communities of coastal Alaska. While the use of existing data is encouraged, proposals could also identify (and explain how/why) new data and applications that might be used to better understand the effect of rapid climate change on coastal communities.

**f. Other Prominent Issues****\$300,000**

NPRB seeks proposals for research that addresses the prominent issues outlined below.

### **i. Zoonotic infections and biotoxins**

Zoonotic infections in marine mammals and birds, as well as biotoxins of marine origin, are emerging as threats to subsistence food safety. NPRB is interested in proposals that investigate the presence of 1) pathogens and/or antibodies in archived tissue, 2) seroprevalence in available blood specimens, or 3) algal biotoxins in invertebrate or vertebrate marine subsistence species, or in prey species of marine mammals or birds that are important in subsistence diets. Proposals may also include intermediate hosts, transport hosts, or the ecology of the pathogen. Proposals that examine the role of co-infection with more than one pathogen (e.g., *Brucella ceti* and *Brucella pinnipedialis*, *Coxiella burnetti*, *Toxoplasma gondii*) are of particular interest. Studies that link human consumers and subsistence hunters with marine reservoirs of zoonotic disease are also encouraged. Studies on biotoxins and the organisms that produce the toxins should focus on recognized seafood safety issues and be directly applicable to subsistence food gatherers, commercial harvesters, aquaculturists, and recreational fishers.

### **ii. Coastal contaminants**

Contaminant levels vary across Alaska; they are of special concern in coastal areas because of the potential toxic effects on biological resources and on human health. The potential indirect effects on human health are especially relevant in rural areas where subsistence harvests provide a significant protein source. NPRB is seeking studies of the bio-effects of contaminants in marine mammals, subsistence species, or commercially-harvested species. NPRB is particularly interested in research on transport of contaminants with demonstrated bio-effects to other ecosystem components; such research should address important and timely issues. *Successful proposals under this category could be funded as an OSRI-NPRB collaboration.*

### **iii. Toxicity of oil, dispersants, and industry-associated discharges**

Data on the toxicity of oil, dispersants and industry-associated discharges are needed to determine the sensitivity of potentially vulnerable key species in the Arctic (e.g., the larval stages of Arctic cod) to these substances. Studies also are needed to evaluate the effects of low-level exposure on the health and physiological responses of these species. NPRB is particularly interested in studies that build off past research and utilize new technology to characterize gene expression responses to oil exposure in wild fish and other marine taxa. *Successful proposals under this category could be funded as an OSRI-NPRB collaboration.*

### **iv. Invasive species**

NPRB seeks proposals that focus on ecological and/or economic impacts of marine invasive species in Alaska. Proposers should be aware of a status report published by the Alaska Dept. of Fish and Game ([http://www.adfg.alaska.gov/static/species/nonnative/invasive/pdfs/invasivespp\\_report.pdf](http://www.adfg.alaska.gov/static/species/nonnative/invasive/pdfs/invasivespp_report.pdf)) that lists the occurrences of marine invasive species in Alaska. Occurrences include several species with high potential for economic impact and/or for further threat of expansion as a result of 1) changing ocean conditions, 2) transport of marine debris (e.g., tsunami debris), and 3) increasing ship traffic (particularly in the Arctic, but also through the Great Circle Route). NPRB is also interested in proposals that include risk assessments for new species invasions given future climate and associated changes in human activities (e.g., marine shipping and ballast water discharges). Proposals that include the design of eradication/control plans and a pilot program to test efficacy of removal are also of particular interest.

## **2. Local & Traditional Knowledge and Community Involvement \$200,000**

The Board continues to be interested in proposals that address local and traditional knowledge (LTK) as well as those that involve community-based organizations and individuals. While LTK and Community Involvement are combined into one category for the purposes of this RFP, proposals do *not* have to address both areas of interest; however, proposals should clearly address either LTK or community involvement as follows:

### **a. Local & traditional knowledge**

NPRB requests proposals that demonstrate the utility and/or applicability of LTK to one or more of the research priorities addressed elsewhere in the RFP. Researchers are encouraged to use existing bodies of LTK information so that the emphasis of the work is on the application of the data to the particular problem rather than on the collection of additional LTK. NPRB is also interested in proposals that focus on the study of best practices for collection and analysis of qualitative information that enable broad application. Proposers are strongly encouraged to communicate with communities during proposal development and to describe such interaction in the Community and Stakeholder Involvement summary section (see page 20 below).

### **b. Community involvement**

NPRB seeks proposals for small-scale research activities that are based in communities along the coast of Alaska and that address the NPRB mission. The intent of this subcategory is to provide individuals and community-based organizations with the opportunity to address their research interests and priorities, insofar as they are consistent with the overall mission of NPRB. This subcategory is not intended to discourage community-based organizations from applying for larger projects under other sections of the RFP; instead, it provides an opportunity for organizations to identify other priority research that is connected to the NPRB mission. Proposals must include a description of how the project will be conducted to meet scientific standards and as well as how it the researchers will fulfill community expectations.

## **3. Cooperative Research with Industry \$300,000**

The Board seeks proposals that address one or more of the research priorities identified below *and engage the fishing, oil & gas or other appropriate industries*. Formal collaborations are required for proposals submitted in the Cooperative Research with Industry category; collaboration is simply encouraged in all other proposals. For proposals submitted under this category, letters of cooperative support from industry partners are required. Proposals must also contribute to the mission of NPRB and be responsive to the Cooperative Research section of Chapter 4 of the *NPRB Science Plan*, p. 148-149. While not required, proposals are also encouraged to include financial support from industry partner(s). In addition to the other evaluation criteria, cooperative research proposals will be assessed with regard to:

- The degree to which the research directly engages the industry partner throughout the project, including during project identification, design and interpretation, as well as in the collection of data;
- How well the proposal addresses pressing management needs for the applicable industry;
- The extent to which the project will improve shared understanding between science and industry, including strengthened confidence in the regulatory process as well as in other products of research; and
- The scientific integrity, practicality, and cost effectiveness of the experimental design.

**a. Fishing Industry****i. Gear modification**

Areas of particular interest include modifications to fishing gear and techniques that 1) reduce habitat impacts, 2) limit gear loss, 3) decrease interactions with non-target species of fish and invertebrates, 4) improve avoidance or minimize interactions with marine mammal or seabirds, 5) improve catchability and selectivity, and 6) reduce discard mortality. NPRB is particularly interested in proposals for:

- a) Studies to evaluate fishing techniques and practices that minimize Chinook salmon bycatch, particularly in non-pollock trawl fisheries in the Gulf of Alaska and Bering Sea/Aleutian Islands.
- b) Further development of seabird bycatch avoidance techniques and development of gear to address the impact of increasing populations of species of concern (e.g., short-tailed albatross).
- c) Modification of pot gear to minimize non-target bycatch mortality of halibut and octopus, as well as improved pot fisheries techniques (e.g., handling and gear) to minimize non-target crab mortality.
- d) Studies that evaluate and reduce scallop-handling incidental mortality.
- e) Modification of gear and handling practices to reduce wastage in the directed commercial and sport halibut fisheries.
- f) Evaluation of the efficacy of low frequency acoustic pingers to reduce potential whale entanglements.
- g) Studies to develop or evaluate methods for modifying fishing gear to reduce potential effects on deep sea corals.

**ii. Fishery monitoring**

The need for accurate and cost-effective fishery monitoring is increasing as management decisions depend more on real- or near-time data. Observer program logistics and costs are impediments to improving monitoring or meeting management needs in many fisheries. Various forms of remote monitoring, including electronic monitoring (EM), may offer practical solutions. NPRB seeks collaborative proposals to develop or further refine EM or other fisheries monitoring techniques. These studies are particularly needed for commercial groundfish, crab, and halibut vessels, as well as for commercial-guided recreational fishery vessels. Additionally, NPRB seeks an assessment of the feasibility for vessels that takes into account the costs associated with deployment and enforcement of various forms of EM technology.

**iii. Ecosystem observations and research**

NPRB seeks proposals that take advantage of existing infrastructure to carry out marine observations. NPRB is interested in the use of fishing vessels and the expertise of fishermen to deploy oceanographic sensors, to collect samples, to make cooperative biomass assessments and surveys, or to study marine mammal or seabird/fishery interactions in order to develop methodologies to reduce such interactions. Proposals that include fishermen working together with scientists to deploy acoustic monitors, evaluate non-fisheries activities on fish behavior (e.g., seismic testing), and carry out cooperative marine mammal or seabird monitoring are encouraged.

**iv. Energy efficiency technology**

Research is needed to identify technology and programs that improve the energy efficiency of fishing gear and vessels used to harvest marine resources. Recent studies have documented that increasing fuel

prices can lead to concentration of efforts on fishing grounds near communities. This, in turn, may contribute to localized depletion, increase nearshore habitat impacts, and increase allocation conflicts. Energetically inefficient vessels and fishing gear also unnecessarily contribute to greenhouse gas emissions. To address this research need, NPRB seeks proposals that incorporate a robust experimental design; for example, NPRB would be interested in a three-part study that collects quantitative data to assess energy efficiency of fishing vessels and gear modifications, develops and tests new technologies and vessel/gear modifications, and then develops innovative methods to assist stakeholders in evaluating the implications of potential changes in their operations.

**b. Oil and gas industry**

NPRB seeks proposals featuring collaboration with the oil and gas industry that focus on the topics listed below. For all topics in this subcategory, priority will be given to studies that take place where oil and gas activities currently occur or where they are anticipated to occur in the future (e.g., southern Beaufort and Chukchi seas, Herald and Hanna shoals, Cook Inlet). Use of data previously collected by the oil and gas industry is encouraged.

**i. Species of special concern**

NPRB seeks proposals that investigate species of special concern in areas where oil and gas activities take place in Alaskan waters (e.g., Cook Inlet, Beaufort and Chukchi seas). Of particular interest are marine mammal and seabird species that are directly impacted by sea ice declines. Also of particular interest are salmon and other subsistence fish species, sea ducks, all federal- or state-listed threatened or endangered marine species, and other declining or at-risk marine species for which evidence of significant threat and vulnerability can be demonstrated.

**ii. Monitoring from platforms**

NPRB seeks proposals that use oil and gas platforms and vessels as sites to measure changes in the environment. Measurements of particular interest include atmospheric parameters (e.g., air temperature, humidity, wind speed and direction, precipitation, solar radiation, long-wave radiation) and oceanographic parameters (e.g., sea surface height, temperature, salinity, currents, nutrients, acoustics, fluorescence, wave height, ice cover).

**iii. Oil spill research in Arctic and subarctic marine ecosystems**

Proposals submitted under this category should investigate the direct effects of oil on marine mammals, seabirds, fish, and invertebrates. NPRB also seeks proposals that study the effects and persistence of dispersants, the bio-remediation of oil, and the weathering and persistence of oil in ice conditions. NPRB is also interested in proposals that include the assessment of coastal environments and their risk to oil exposure in case of a spill, as well as those that seek standardization of scientific methodology and protocols to be used during a response. *Successful proposals under this category could be funded as an OSRI-NPRB collaboration.*

**4. Technology Development and Novel Applications \$300,000**

NPRB is interested in supporting new technological development and novel applications in the following areas:

**a. Molecular and laboratory-based technology development**

The Board seeks proposals to develop new molecular technologies or to apply modern molecular techniques to existing research problems in novel ways. NPRB is interested in proposals for studies that use DNA-based technology, such as eDNA, in the detection of cryptic organisms or to assess species diversity. Furthermore, NPRB is interested in the use of DNA-based technology to identify invasive species, phenotypically undifferentiated life-history stages, prey species in diet studies, or parasites/pathogens that affect survival or product quality. NPRB also encourages proposals that include the analysis of chemical and biochemical profiles that provide methods to age individuals in order to assess physiological condition or to infer individual dispersal histories.

**b. Marine measurement technology development**

NPRB seeks proposals that improve or develop new technologies to measure physical, chemical and biological variables in the marine environment. Both sensor technologies and their platforms (such as ROVs, AUVs, and gliders) need continued evaluation in the face of recent advances in engineering technology. Of particular interest are proposals focusing on marine sensor technology development that addresses marine-environmental information needs in resource management. Examples include, but are not limited to, turbidity or pCO<sub>2</sub> sensors, fluorometers, and acoustic technologies for arctic and subarctic marine environments. Also of interest is the development of instrumentation for rapid measurement of photosynthetic activity to ground truth widely used satellite and *in situ* measurements of chlorophyll. Field testing of devices, such as optical plankton counters deployed on nets, is also needed to speed processing of zooplankton samples to estimate abundances.

**c. Other technology development**

While the topics described in a and b of this category are given priority, NPRB will also consider proposals that focus on other technological development relevant to sustainable use of marine resources and to pressing fisheries management needs in the Gulf of Alaska, Bering Sea, Aleutian Islands and Arctic Ocean.

**5. Data Rescue \$100,000**

In order to maximize investment in new research, NPRB is interested in proposals that will rescue datasets that are currently inaccessible and/or at risk of being lost and will transform them into shared digital formats. Marine research has produced a wealth of information and insights; large amounts of data have been collected. Many of these datasets have been digitized and submitted to national data centers, such as the National Oceanographic Data Center (NODC), for storage and for retrieval by the broader scientific community. However, a variety of datasets that span research from oceanography to fisheries and seabirds to marine mammals are currently in formats not accessible to other researchers (e.g., gray literature reports, paper files, field notes, undocumented local and traditional knowledge). As a result, these datasets cannot be used to help answer current research and management questions.

In order to develop a realistic long-range view of past ocean conditions with particular respect to the biological status, NPRB also requests proposals that seek to access data from early historic or pre-historic sources (e.g., early fishing records, whaling records, middens, tree ring, sediment records). While data from these sources may or may not readily be digitized, there is a need to identify and document such information.

In both areas, proposals must 1) describe the nature and state of the data to be rescued (e.g., location, format, content), 2) ensure that they are not already part of an accessible database, and 3) describe the utility of the dataset to current relevant science and management questions. Proposals must also include a plan for integrating the rescued data into appropriate national data centers or databases. Proposals could also include subsequent analyses of these data. *Successful proposals under this category could be funded as an OSRI-NPRB collaboration.*

#### **6. FOCUS SECTION: AYK Region Chinook Salmon \$750,000**

The purpose of the focus section is to highlight pressing research needs for fisheries research or ecosystem understanding. This year, the focus section is dedicated to **Arctic-Yukon-Kuskokwim (AYK) region Chinook salmon**. *It is the intent of the Board to fund two or more projects as part of this category. Proposals of more than \$500,000 must be collaborative.*

NPRB seeks proposals that further scientific understanding of the factors affecting the health and productivity of AYK Chinook salmon stocks in both marine and in-river systems. NPRB is particularly interested in proposals that complement and coordinate with one or more of the ongoing scientific initiatives.

Chinook salmon stocks in the AYK region have been in decline for roughly a decade. The decline of these stocks has significant social, cultural, and economic effects for the fisheries and the peoples of the AYK region. The ongoing decline confounds the management of a wide range of fisheries in the Bering Sea and associate river systems. Several initiatives are underway to better understand the causes of the decline and factors affecting the productivity of AYK Chinook, including initiatives developed by the State of Alaska (<http://www.adfg.alaska.gov/FedAidPDFs/SP13-01.pdf>) and the AYK's Sustainable Salmon Initiative (<http://www.aykssi.org/wp-content/uploads/AYK-SSI-Chinook-Salmon-Action-Plan-83013.pdf>).



## PROPOSAL APPLICATION MATERIALS AND PROCEDURES

All applicants should refer to [http://www.nprb.org/proposals/current\\_rfp.html](http://www.nprb.org/proposals/current_rfp.html) for a copy of proposal application materials. If you need further information, please contact the NPRB staff. Scientific questions related to the RFP or general assistance inquiries should be directed to Acting NPRB Science Director Carrie Eischens ([carrie.eischens@nprb.org](mailto:carrie.eischens@nprb.org)) 907-644-6712. NPRB staff members, Danielle Dickson ([danielle.dickson@nprb.org](mailto:danielle.dickson@nprb.org)) 907-644-6716 and Susan Dixon ([susan.dixon@nprb.org](mailto:susan.dixon@nprb.org)) 907-644-6701, are also available to provide general assistance. For IT assistance with the proposal submission system please contact Igor Katrayev ([igor.katrayev@nprb.org](mailto:igor.katrayev@nprb.org)) 907-644-6711.

*Please note that if the links to the template documents provided below do not work on your computer due to your internal security settings, you can find all templates on the webpage listed above.*

### PROPOSAL SUBMISSION AND DEADLINE

Proposals must be submitted online at [http://www.nprb.org/proposals/current\\_rfp.html](http://www.nprb.org/proposals/current_rfp.html) by **Thursday, December 5, 2013 at 4 p.m. Alaska Standard Time**. Online submission for proposals will be available starting in early October 2013, and will close at **4 p.m. Alaska Standard Time on Thursday, December 5, 2013**. During the submission process you will create an account to which you can return at a later date, if needed. Returning applicants can use their existing accounts.

Applicants need to prepare and submit the following information and documents (described in more detail on the following pages). *Please note, proposals must use provided templates for all sections for which they are supplied; proposals that do not use the templates will not be considered for funding.*

1. *Proposal Summary Signature Pages*  
(see below for additional information regarding submission of these pages)
2. *List of Proposal Objectives*
3. *Proposal Classification*
4. *Links to Current and Previous NPRB Projects*
5. *Contact Information*
6. *Research and Outreach Plan* (maximum 12 pages, *use provided template*)
7. *Results of Completed NPRB Projects* (*use provided template*)
8. *Budget Summary and Budget Narrative(s)* (*use provided templates*)
9. *Résumés/CVs* (maximum 2 pages per investigator)
10. *Current and Pending Support Form(s)* (*use provided template*)
11. *Letters of Support* (*if applicable*)

You will be asked to complete a series of online forms with information from the list above and to upload required files. For certain sections, **TEMPLATES ARE PROVIDED AND MUST BE USED AS INDICATED**. Refer to hyperlinks in the appropriate sections below and/or find the templates on the NPRB website: [http://nprb.org/proposals/current\\_rfp.html](http://nprb.org/proposals/current_rfp.html) "Required Documents, Forms and Templates."

Download, complete, and then upload the completed templates in the appropriate places during the submission process. Your information will be saved as you move through the process; you will have the

ability to update any information you have provided as long as it is prior to the deadline and before your final submission.

*Please note, it is in your best interest to submit your full proposal well ahead of the deadline.* The system will be closed promptly at the time noted above; even if the majority of your proposal has been saved, your session will be interrupted and will not be able to finalize your submission. An incomplete submission will lead to immediate rejection of your proposal.

If you have trouble submitting your proposal any time prior to 4 p.m. Alaska time on December 5, 2013, you may contact NPRB staff for assistance, but **you** are ultimately entirely responsible for getting your proposal submitted on time. Also, please note that NPRB staff may be constrained in the help they are able to provide if you wait until the last minute.

Proposals must follow the guidelines and criteria specified herein and must be submitted online by **4 p.m. Alaska Standard Time on December 5, 2013.**  
**In the interest of fairness, no proposals received after this deadline will be considered for funding.**

The signed *Proposal Summary Signature Page(s)* generated by the system at the end of the application process must be received at the NPRB office **no more than one week after the proposal submission deadline, i.e., 4 p.m. Alaska Standard Time, December 12, 2013.** If you choose to send via postal mail rather than email, *please note that courier and express deliveries to Anchorage, Alaska, normally require a minimum of two business days for delivery.* If you choose to email your signed *Proposal Summary Signature Page(s)*, please use the subject line "Signature Pages [reference number]."

A link to automatically generated *Proposal Summary Signature Pages* will appear as soon as you have provided the following information:

- Full address and contact information for each agency or entity that will be legally bound to perform the research if funded
- Names of the principal investigators (PIs) and co-investigators (Co-PIs) that will be associated with the project, along with their agency/organization affiliations and email addresses
- Abstract
- Community and Stakeholder Involvement summary
- Amount of funding requested

Once you have finalized your submission you will be assigned a reference number. **Insert this reference number in the appropriate place on the signed *Signature Page*.**

One *Proposal Summary Signature Page* will be generated for each institution involved in the project, as well as one overall *Signature Page* listing all institutions. Please print these pages and have them signed by the authorized legal representatives of each institution participating in the proposed research. The signature from an authorized representative certifies that the proposal in its entirety, including the budget, has been submitted according to your organization's standard proposal approval process. **The proposal applicant needs to sign the overall *Signature Page*.**

Each authorized representative from the institutions involved in the project may send his/her institution's signed *Proposal Summary Signature Page* to NPRB separately. *Please note the new Proposal Summary Signature Pages submission policy:* Electronic versions are now accepted. You may either email scanned

versions to [susan.dixon@nprb.org](mailto:susan.dixon@nprb.org), with “**Signature Pages [reference number]**” in the subject line or you may mail them to:

North Pacific Research Board  
ATTN: Susan Dixon  
1007 West 3rd Avenue, Suite 100  
Anchorage, AK 99501

### **PROPOSAL CONFIDENTIALITY**

Proposals shall be deemed confidential until the Board approves them for funding. If a proposal is submitted but not funded, the proposal is retained at the NPRB office as part of our internal records. Unfunded proposals remain confidential; however, project title, author(s), funds requested, duration, and proposal summary pages may be made public.

If a proposal is recommended for funding by NPRB and approved by the Secretary of Commerce, the full *Research and Outreach Plan* and *Résumés/CVs* will be available to the public on the NPRB website. Budget details and Current and Pending spreadsheets will remain confidential.

Proposals submitted in response to the joint NPRB-OSRI research priorities that have overlapping interest with OSRI will go through a special joint-review process and will be distributed to the OSRI Board and its advisory bodies in accordance with its standard operating procedures (<http://www.pws-osri.org>).

### **THE PROPOSAL PACKAGE**

The full proposal package consists of 11 elements:

#### **1. Proposal Summary Signature Pages**

The proposal summary signature pages will be created automatically based on the information you provide during the online submission process. It will include:

- *Title*
- *Project period*
- *Names of applicant organization and principal/co-investigators*
- *Abstract* (maximum 300 words, see below for additional instructions),
- *Community and stakeholder involvement summary* (maximum 300 words, see below for additional instructions)
- *Requested funds and other support*
- *Signature page*, to be signed by an official authorized to legally bind the submitting organization.

The proposal signature page does not count towards the 12-page limit of the *Research and Outreach Plan*. Social security numbers must not be included in any of the fields.

**Abstract:** In 300 words or less, briefly explain the goal and value of the proposed project and describe how the research is relevant to the mission of NPRB. Use language understandable by individuals who are not familiar with the specific subject area, such as members of Congress or the general public.

**Community and Stakeholder Involvement:** Inclusion of stakeholders in project planning and incorporation of local and traditional knowledge throughout the proposed research is strongly encouraged. In 300 words or less, articulate your plan for community and stakeholder engagement during 1) proposal development, 2) research, and 3) project close-out. Applicants should specify the extent to which stakeholder groups were included in development of the project plan; which communities, if any, they plan to interact with during their research; and how results will be brought back to stakeholders when the project is completed. Researchers are reminded that local community knowledge of, and interest in, natural resources extends beyond the physical boundaries of communities themselves. Researchers are expected to advise members of affected communities as well as other stakeholders (e.g., commercial fishing industry personnel) of the study purpose, goals, and research time frame. If applicable, researchers should also explain how the project responds to urgent challenges facing stakeholders. In addition, proposals for research involving specific Alaska Native communities or human health issues must have a letter of support from the appropriate community or tribal governing bodies (see Section 11). If you determine that community and stakeholder involvement does not apply to your proposal, use this section to briefly explain why.

## 2. Proposal Objectives

During submission of your proposal, you will be asked to list your project objectives. Objectives are the fundamental and measurable goals of your proposed work; the project objectives are what NPRB uses to evaluate progress and completion of the project. **Project objectives must be achievable and specific.** Note that project objectives entered into the online submission system should be the same as those listed in your research plan (see Section 6D: Project Objectives).

## 3. Proposal Classification

During your submission, you will be asked to provide the following:

- **Research Priority:** Choose ONE primary research category or subsection from the 2014 RFP under which your proposal will compete. For example, “Trophic ecology of seabirds” is a subsection under the section “Seabirds” within the overall research category of “General Research Priorities on Ecosystem Components.” If a subsection is indicated, you will compete within that subsection. On the other hand, the “Data Rescue” research priority has no subsections provided so all proposals submitted under that category will compete in the overall “Data Rescue” category.

In Section 6C: Project Responsiveness to NPRB Research Priorities or Identified Project Need of the *Research and Outreach Plan*, you may identify up to three secondary research priorities to show the broader responsiveness of your proposals to the RFP, **but your proposal will only be considered and compete for funding under the primary research priority or subsection you indicate in the online system.** Proposals that are not responsive to the research priority or subsection chosen online will not pass the initial screening and will therefore not undergo independent technical evaluation (see PROPOSAL REVIEW PROCESS section below).

- **Graduate Students:** List the number of graduate students you intend to include in your project. Include the degree level (M.Sc., Ph.D.) and duration of their degree in years. If you do not intend to include graduate students as part of your project, indicate that here. Graduate student participation in NPRB projects is strongly encouraged; however, this graduate student listing will not affect the evaluation of your proposal and is intended for informational purposes only. *Please*

*note, including graduate students in the research part of your project does not fulfill the outreach requirement unless the student is actively doing outreach and sharing research results with non-scientific audiences.*

- **Species:** Provide the species name(s) of the focal subjects of your study.
- **Large Marine Ecosystem (LME):** Indicate the LME(s) in which your study takes place (consult the NPRB *Science Plan*, p. 11, Figure 2-1 for LME boundary definitions):
  - Arctic Ocean
  - Bering Sea and Aleutian Islands
  - Gulf of Alaska
- **Place:** List one or more regional geographic locations in which your study will take place; this should be a finer-scale location than the one identified in the LME section.
- **GIS Location:** Enter the proper latitude/longitude coordinates for the location of the project or area of study. *Please note, to assist with this requirement there is a map feature incorporated into the online submission process.*
- **Topical Area:** Identify the topical area of your proposed research based on Tables 3.2 through 3.13 in the NPRB *Science Plan* (e.g., Population Ecology, Fishery Interaction, Subsistence).
- **Ecosystem Component:** Indicate one or more of following ecosystem components (see the NPRB *Science Plan*, p. 33-131 for information regarding research themes) addressed in your study:
  - Oceanography & Lower Trophic Level Productivity
  - Fishes and Invertebrates
  - Fish Habitats
  - Seabirds
  - Marine Mammals
  - Humans, and/or
  - Other Prominent Issues (e.g., contaminants, disease, invasive species, climate change)
- **Keywords:** Describe your project with 5-10 keywords. Do not include any words that are already identified in the sections above: species, LME, place, GIS location, topical area or ecosystem component.
- **Research Approach:** Identify which research approach(es) will be used in your study:
  - Monitoring
  - Process Study
  - Retrospective Analysis
  - Modeling
- **Reviewer Expertise Criteria:** Identify criteria that best describe the expertise needed to properly review your proposal. Completing this section as accurately as possible will help ensure proper peer review of your proposal.

#### 4. Links to Current and Past NPRB Projects

During the proposal submission process you will be asked to confirm (by checking a box) that you have reviewed the NPRB Project List (<http://project.nprb.org/>) for projects that relate to your proposed research and that there are no significant duplications of effort.

You will also be asked to provide text explaining any connections between your proposed work and any current or past NPRB projects. If there are no connections between your proposed research and past/current NPRB funded projects, please state that in the appropriate place during proposal submission.

#### 5. Contact Information

As part of the submission process, you will be asked to provide contact information (name, organization/institutional affiliation, mailing address, email, phone, and fax number) for the individual(s) at each organization who will fulfill the following roles as defined below. As noted in list that follows, for some roles *Results of Completed NPRB Projects* (see Section 7), a *Résumé/CV* (see Section 9) and *Current and Pending Support Form* (see Section 10) are also required. *Note that a Principal Investigator and Administrative Grant Manager are required for each organization requesting funding.*

Suggesting potential reviewers is optional; if you choose to submit names of possible reviewers. The names submitted will not be disclosed. Please do not suggest colleagues from the institution(s) that will participate in the research. For more information, please read NPRB's Conflict of Interest Policy ([http://www.nprb.org/proposals/documents/NPRB\\_coi\\_policy\\_final.pdf](http://www.nprb.org/proposals/documents/NPRB_coi_policy_final.pdf)).

##### Roles:

- **Proposal Applicant** (required): Person who is submitting the proposal, either for him- or herself or on behalf of the principal investigator(s). Full contact information is required, but no *Résumé/CV* or *Current & Pending Support Form* is required for this role. There can be only one Proposal Applicant for the entire proposal.
- **Lead Principal Investigator** (required): Person with the overall responsibility for the project, should it be funded. The Lead Principal Investigator will have oversight in terms of scientific content, project management and project completion. There can be only one Lead Principal Investigator for the entire proposal. This person must also be listed as a "Principal Investigator" and provide the information listed below.
- **Principal Investigator(s)** (required): Person(s) responsible for the scientific content of the proposal and for completion of the project, should it be funded. The proposal must include at least one Principal Investigator for each organization requesting funds, and must provide full contact information (including institutional affiliation) for each. In addition, *Results of Completed NPRB Projects*, *Résumé/CV*, and a *Current & Pending Support Form* must be submitted for each Principal Investigator.
- **Co-Investigator(s)** (if applicable): Researcher(s) responsible for carrying out part of the scientific content of the proposal. Submission of full contact information (including institutional affiliation), *Results of Completed NPRB Projects*, *Résumé/CV*, and a *Current & Pending Support Form* for each Co-Investigator is required.
- **Collaborator(s)** (if applicable): Person(s) who have committed to work on a project and complete specific tasks, but who are not responsible for successful completion of the project.

Collaborators do not receive funds from NPRB for their involvement in the project. Individuals in this role need only submit full contact information (including institutional affiliation); no other forms are required.

- **Administrative Grant Manager(s)** (required): Person(s) responsible for the financial administration of the grant, who can provide legally binding authorization (e.g., Office of Sponsored Programs). One Administrative Grants Manager is required for each organization requesting funds. Full contact information is required; no other forms must be submitted.
- **Potential Reviewer(s)** (optional; maximum of three): Person(s) not associated with this project in any of the groups above, but with sufficient expertise and credentials to review the proposal in an objective manner. No résumé is required, but please provide full contact information. Before suggesting a reviewer, please refer to NPRB's Conflict of Interest Policy ([http://www.nprb.org/proposals/documents/NPRB\\_coi\\_policy\\_final.pdf](http://www.nprb.org/proposals/documents/NPRB_coi_policy_final.pdf)).
- **Unacceptable Reviewer(s)** (optional): If you prefer that a specific individual not review your proposal for a reason other than conflict of interest, please provide their name only. No reason need be provided. We will make every effort possible to ensure that identified individuals are not contacted for an anonymous technical evaluation of your proposal.

6. **Research and Outreach Plan** (use template)

You will be asked to upload a *Research and Outreach Plan* that does not exceed 12 pages, including references, tables and figures. The only acceptable format for the *Research and Outreach Plan* is a **Microsoft Word document (.doc or .docx)**.

The main body of the proposal is this plan document, **limited to 12 consecutively numbered pages** and formatted as follows:

- All pages in the proposal and supporting material must be formatted to **8.5 x 11 inches**.
- All pages (including references) must have **one-inch margins** at the top, bottom and sides.
- The plan must have **continuous line numbers** from beginning to end.
- All text (including tables, figure captions, citations and references) must be **single-spaced**; the font and size must be **Times New Roman 11-point font**.
- Tables must be created within the Word document and in **Times New Roman 11-point font**.
- Figure captions must be part of the Word document in **Times New Roman 11-point font** (i.e., captions should not be embedded in the figure).
- Color graphics are allowed; however, in the event they are reproduced without color, all graphics must be sufficiently descriptive in black-and-white. *Note that submitted proposals will be converted to PDFs; this conversion may impact the quality of your graphics.* Please ensure an appropriate resolution is used.

***FAILURE TO COMPLY WITH ANY OF THESE FORMATTING SPECIFICATIONS WILL RESULT IN AUTOMATIC DISMISSAL OF YOUR PROPOSAL WITHOUT FURTHER REVIEW.***

Please note that the research plan must retain the font style, size, and margin width in the provided template. If your proposal exceeds the 12-page limit when the formatting requirements are verified, your proposal will be automatically dismissed without further review. Proposers who fail to comply with formatting specifications will be notified in writing of the disqualification.

Since 2006, more than 2% of proposals submitted have been returned without review due to formatting issues. *PLEASE be sure to comply with all formatting specifications.*

Following the template provided, your *Research and Outreach Plan* will have the following elements:

- A. **Project Title**: Include the **long title**, as well as a suggested **short title** of up to 60 characters.
- B. **Proposal Summary**: Briefly explain the goal and value of the proposed project and describe how the research is relevant to the mission of NPRB. Use language understandable by individuals not familiar with the specific subject area, such as members of Congress and the general public. The 300-word abstract from the *Proposal Summary Signature Page* would suffice.
- C. **Project Responsiveness to NPRB Research Priorities or Identified Project Need**: Identify the specific research priority identified in the RFP to which you are responding and **describe** how your proposal addresses this priority. If you are responding to an "Other" research priority subsection, be sure to identify and justify the need for your proposed research within the context of NPRB's mission. To show your project's broader applicability you may also identify and describe **up to three** secondary research priorities (or priority subsection categories) also addressed by your proposed research. *Please note that your proposal will only be considered and compete for funding under the primary research priority or sub-priority selected during the online submission process.* The priority or subsection discussed here **must match** the one selected during the online submission process. Please note that in case of discrepancies, the priority or subsection identified during the online submission process will be used.
- D. **Project Objectives**: Provide a numbered, annotated list of your project objectives; do **not** provide a narrative in paragraph form. Objectives are the fundamental and measurable goals of your proposed work. NPRB uses the project objectives to evaluate progress and completion of the project. **Project objectives must be achievable and specific.** The objectives listed in the research plan should be the same as those entered into the online submission system.
- E. **Project Design and Conceptual Approach**: State what the project will accomplish and why it is important. Use this section to expand on the objectives listed above in Section 6D: Project Objectives. Demonstrate 1) an understanding of the problem being addressed, 2) the present state of knowledge in the field, 3) the project's relationship to previous work and work in progress by the principal/co-investigator(s), and 4) the measurable benefits that will result from the proposed research. If this project builds upon project(s) previously funded by NPRB, describe progress to date and the objective(s) of the next funding period. Describe the conceptual or statistical model underlying your experimental work. Present a list of clear hypotheses. Describe and justify the experimental design and the analytical approach, including assumptions required, sample size, other relevant information needed to determine the utility and technical feasibility of accomplishing your research, and the expected outcome. In cases where sample sizes are in issue, be sure to include a power analysis.



- F. **Outreach:** Describe in detail the outreach component of this project. Proposers are required to develop a plan for communicating research results and/or processes to non-scientific audiences. **Proposal Budgets must include a minimum of \$2,000 for outreach activities, including materials and delivery/distribution.** Use the *Budget Narrative* (Section 8) to provide a **detailed** breakdown of how the money will be spent. The outreach plan must include at least one audience beyond marine researchers. Outreach activities should be aligned with the research objectives and target at least one key audience identified in the NPRB *Science Plan* such as: marine researchers and resource management agencies; commercial and subsistence users; teachers and students; general public.

NPRB reserves the option to work closely with the principal investigators to pool outreach resources from funded projects, where appropriate, to achieve a broader impact. Please note that NPRB does not consider university student research, publications in peer-reviewed journals, or presentations at scientific conferences to be activities that fulfill the outreach requirement. For ideas, please refer to the Outreach Tools section of the NPRB website (<http://www.nprb.org>), where you'll find resources and examples of outreach activities from past projects.

- G. **Timeline and Milestones:** Applicants must demonstrate that they can achieve an outcome and product within the requested award period, including: **data analysis and submission, metadata and data submission, and timely completion of all reports.** Provide a clear table, **organized by semi-annual reporting periods** (i.e., January-June, July-December), detailing the project timeline and associated measurable milestones (e.g., objectives achieved, outreach conducted, accomplishments, and deliverables) that will be used to track and evaluate project performance through the entire award period. You may additionally describe any products or results that may be used to measure your success (e.g., report, published paper, management implementation) and how you plan to disseminate the research results. In planning the duration and timeline of your project, do not assume that a no-cost extension will be granted.

The timeline should also include attendance of at least one project representative at the Alaska Marine Science Symposium (AMSS) during **each year of the project and in the year following** the substantial completion of the project (be sure to also account for this participation at AMSS in Section 8: *Budget Summary* and *Budget Narrative*). *Please ensure that your project end date incorporates attendance at this final symposium. Also note, proposals may not request a project start date before July 1, 2014.*

- H. **Project Management:** Describe the organization and management of the project as well as the experience and qualifications of the principal and co-investigator(s). Individuals with full-time equivalent (FTE) positions must indicate standing time availability as authorized by their supervisor. Applicants must seek to avoid duplication of other research efforts; demonstrate how PIs/Co-PIs will coordinate and collaborate with other projects and leverage their proposals with support from other sources. If more than one investigator is involved, the applicant must clearly identify which one will be responsible for the overall work (the designated lead principal investigator), as well as the specific responsibilities of each PI/Co-PI involved in the project.

If applicable, **permits** that may be required to conduct the project must be documented in this Program Management section. If available, permit applications or granted permit numbers should be provided. Permitting requirements are the responsibility of the applicants; NPRB will not financially support the permit application process.

- 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. All text in figure and tables must be **Times New Roman 11-point**

**font** (i.e., figure captions and table labels must be part of the Word document, not be embedded in the figure).

- J. **References:** References are also part of the 12-page limit. Avoid using long strings of references for the same statement. List all references in a format appropriate for a major journal such as *Transactions of the American Fisheries Society* or *ICES Journal of Marine Science*.

**Note: This is the end of the 12-page limit.**  
Line numbers should not be included beyond this part of the proposal package.

7. **Results of Completed NPRB Projects** (use template)

Each Principal Investigator and Co-Investigator identified in the proposal must provide the information indicated in the *Results of Completed NPRB Projects* template for all completed NPRB projects. Information is limited to a maximum of one page per completed project. Related projects that are continuations of the same effort/objectives may be combined for this report. Information about ongoing NPRB funded projects that are related to the current proposal should be included in Section 6E: Project Design and Conceptual Approach of the *Research and Outreach Plan*. *If the PI or Co-PI has not been involved as a PI or Co-PI in any completed NPRB project, please state this at the top of the page.* Upload one *Results of Previous NPRB Projects* document for each PI and Co-PI separately; do not submit a single, combined document.

8. **Budget Summary and Budget Narrative** (use templates)

Funding amounts specified above are for the full duration of the project (i.e., it is not per-year funding). Please check your final budget before submission to ensure that the addition of indirect costs as a percentage does not cause your total budget to exceed the limit for individual proposal funding cap for the research priority to which the proposal is submitted. *Please note, if your proposal exceeds the cap by even \$1, it will be returned without further review.*

Your budget must include costs of:

- Preparing all required reports
- Publication of results in appropriate scientific journals
- Providing metadata and data records to NPRB
- Outreach materials and distribution (minimum of \$2,000, see Section 6F: Outreach)
- Travel costs for at least one project representative to attend the Alaska Marine Science Symposium ([www.alaskamarinescience.org](http://www.alaskamarinescience.org)) in Anchorage for each year of the project and in the year following the substantial completion of the project to present final results. NPRB funding for a project does not guarantee an oral presentation at AMSS. *Please note that travel to and presentations at the annual symposium do not fulfill the outreach requirement.*

**Budget Summary:** The *Budget Summary* file contains a series of Excel spreadsheets (one for each institution/organization requesting funds) that detail by year the following mandatory budget categories:

- Salaries
- Fringe benefits

- Travel
- Equipment
- Supplies
- Contracts/consultants
- Other expenditures
- Indirect costs (F&A)
- Other support/cost sharing with other programs

Year 1 consists of the first 12 months of the project beginning from the proposed start date. *Please note, proposals may not request a project start date before July 1, 2014.* The *Budget Summary* template includes a summary page that automatically combines all information for up to four different organizations. The template may be revised to include more institutions as needed. *Please note that each organization requesting funds must designate one Principal Investigator to be responsible for that specific component of the project; the PI's name must be entered on the Budget Summary worksheet for the corresponding organization.* The total budget requested in the *Budget Summary* must match the budget entered in the online proposal submission system; if discrepancies exist, the lesser amount will be assumed correct.

Budget Narrative: Guided by the example in the template for the *Budget Narrative*, each institution requesting funds and/or providing other support for the project must provide a detailed description of costs listed under each budget category in the *Budget Summary* file. Proposers are encouraged to include supporting spreadsheets and other materials if applicable. The narrative text need not duplicate information that is clearly presented in spreadsheet form. *The details of the Budget Narrative must exactly match the numbers entered in the Budget Summary.*

The *Budget Narrative* should include information regarding:

- **International Travel:** Clearly state whether or not your project will require any international travel, including travel to or from any location outside of the United States. Inclusion of international travel will not impact the review process; however, if a proposal is funded, approval of international travel will require a special application that may take up to three months to process. *Please note that it will be the funded investigator's responsibility to initiate the foreign travel request process once the proposal has received funding. Also note that Fly America Act ([http://www.nprb.org/images/projects/fly\\_america.pdf](http://www.nprb.org/images/projects/fly_america.pdf)) regulations will apply to all travel included in the funded proposal.*
- **Outreach:** Describe the cost breakdown of outreach funds at the end of the budget narrative. Also include the cost breakdown of outreach activities under the appropriate category (as outlined in the *Budget Summary* section), making special note that they are part of the outreach budget. It is **not** sufficient to list \$2,000 without itemizing costs for the proposed activities. *Please note, if qualified outreach activities are not conducted during the course of the project, the funds set aside for those activities will be withheld by NPRB.*
- **Ship Time:** Please be explicit whether your budget includes ship time; if it does not, indicate how required ship time (if any) will be covered by other guaranteed funds.

- **Cost Quotes:** For any individual item of equipment costing \$20,000 or more, please attach a cost quote from a vendor.
- **Other support:** Applications must reflect the total budget necessary to accomplish the project, including contributions from federal or non-federal grants, base organizational budgets, and/or donations. Cost-sharing is not required, but is encouraged. If a proposal that includes cost-share is selected for funding, the applicant will be bound by the percentage of the cost-share reflected in the grant award. Please be advised that although the Environmental Improvement and Restoration Fund (EIRF) that supports NPRB awards is not appropriated, the U.S. Department of Commerce has made a finding that EIRF funds should be considered to be federal funding because an authorization act created the "fund" in the U.S. Treasury.

*Please note, all organizations (including those that are providing "other support" but not requesting funds from NPRB) will be required to sign a Proposal Summary Signature page document (see Section 1).*

- **Indirect Costs** (sometimes referred to as overhead or F&A): The *Budget Summary* may include an amount for indirect costs if the applicant has an established rate for indirect cost with the federal government. The total dollar amount of the indirect costs proposed in an application under this program must not exceed the indirect cost rate negotiated and approved by a cognizant federal agency prior to the proposed effective date of the award, or 100 percent of the total proposed direct cost dollar amount in the application, whichever is less. If applicable, a copy of the current, approved, negotiated indirect-cost agreement with the federal government must be included. The agreement will not be distributed to reviewers. *Please note, institutions cannot increase their indirect rate during the course of the project. The approved rate at the time of application will apply throughout the duration of the project.*

## 9. Résumés/CVs

The résumés or CVs of all Principal/Co-Investigators and other senior personnel involved in the proposal must be provided. Collaborators do not need to submit their résumés. Each résumé/CV is limited to **two pages**. Upload each individual résumé separately; do not combine them into a single document. *If uploading résumés as PDF documents, please ensure that these are unprotected documents so that they may be merged with other documents for peer review.* Each two-page résumé must include the following information:

- Contact information including mailing address, work phone number and email address
- A list of professional and academic credentials
- A description of current activities relevant to the proposed project
- A list of **up to five** most recent/relevant publications most closely related to the proposed project and **up to five other** significant publications, as appropriate. Please highlight publications that are based on research supported by NPRB funds.
- An **alphabetical** list of all persons (including organizational affiliations) with whom the PI/Co-PI has collaborated on a project or publication within the last **four years**. Also include all thesis advisors and graduate students supervised. If none, this should be indicated.

## 10. Current and Pending Support Form(s) (use template)

For each Principal/Co-investigator and other senior personnel involved in the proposal, use the provided template to disclose 1) any current or pending financial resources that are intended to support research related or similar to research included in the proposal, or 2) that would consume the time of the proposer(s). The proposer must also disclose if they have submitted the current proposal to other funding sources. Each individual's *Current and Pending Support Form* should be uploaded separately; do not combine them into a single document.

## 11. Letters of Support

Letters should be specific about the role of collaborators and indicate how the results will be of use or benefit. Provide letters of support from:

- Collaborating agencies
- Relevant management agencies
- Industry partners for cooperative research activities
- Individuals or organizations providing facilities or infrastructure support
- Communities (including Alaska Native communities and tribal governing bodies, if applicable)
- Others potentially impacted by project activities or benefiting from the projects results

Submit letters of support via upload to the online proposal system or send hard copies to the NPRB office. Letters should be specific about the role of collaborators and indicate how the results will be of use or benefit. Upload *these letters, if any*, in the appropriate place during the online proposal submission. Any hard copies submitted directly to NPRB before the submission deadline will be uploaded to your proposal package after the proposal has been successfully submitted. Letters of support received after **December 12, 2013** will *not* be included in the proposal package for review. *If uploading letters of support as PDF documents, please ensure that these are unprotected documents so that they may be merged with other documents for peer review.*

## PROPOSAL REVIEW PROCESS

### *Initial Screening of Proposals*

Upon receipt of proposals, NPRB staff will screen proposals for conformance with requirements set forth in this notice. This review will consider whether the proposal meets the format and structure requirements outlined in this RFP and assess whether the proposed research falls within the selected research priority.

- Proposals that do not comply with the formatting requirements of the RFP or that are determined to be unresponsive will be returned without further processing. Written notification of non-compliance or non-responsiveness will be provided to the proposal applicant.
- Proposals identified as having questionable responsiveness will be reviewed by an ad hoc committee of NPRB Science Panel members 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 selected RFP priority, it will be fully reviewed.
- Proposals that comply with format and structure requirements and that fall within the research priority identified by the proposer will be full reviewed as described below.

***Independent Technical Evaluations***

Proposals that pass the initial screening will undergo independent, anonymous, technical peer review. The goal of this step is to receive three independent technical reviews for each proposal. Regional, national and international experts review proposals in accordance with NPRB's Conflict of Interest Policy ([http://www.nprb.org/proposals/documents/NPRB\\_coi\\_policy\\_final.pdf](http://www.nprb.org/proposals/documents/NPRB_coi_policy_final.pdf)). 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, as well as an overall summation. Percentages indicate the weight that the subsequent review by the NPRB Science Panel will give to the criteria. Reviewers will be asked to score each section, as well as the overall summation, into one of five categories: **poor, fair, good, very good, or excellent.**

The technical review criteria are:

a. Soundness of Project Design/Conceptual Approach (60%):

Reviewers assign the following approximate weights to components within this criterion: 10% for background/need; 10% for statement of problem/question; 20% for study design; 20% for analysis.

- Are the project objectives clearly stated and explain 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 design relative to securing productive results?
- Is there a clear hypothesis to be tested and well-defined expected outcomes?
- Is there a clear description of a detailed experimental design with associated power analysis as appropriate, including assumptions required, sample size, and other relevant information needed to determine the utility and technical feasibility of accomplishing the research?
- Is there a list of data sources or requirements?

b. Outreach (5%):

- Is the outreach plan clearly defined?
- Are the outreach activities/materials and distribution plan appropriately aimed at NPRB target audiences?
- Does the proposal address community involvement throughout the project and communication of results to non-scientific audiences?
- Are the costs itemized in the budget narrative and are they realistic for the proposed activities?

c. Timeline and Milestones (10%):

- 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 (e.g., report, published paper, management implementation) and how the research results will be disseminated?

d. Project Management (15%):

Evaluate the organization and management of the project, and the project's principal/co-investigator(s) and other personnel in terms of related experience, qualifications, and prior performance. Applicants must demonstrate how they will coordinate and collaborate with other projects and leverage their proposal with support from other sources. Have investigators demonstrated adequate resources and partnerships to complete the proposed work? Applicants must seek to avoid duplication of other research efforts. If there is more than one investigator involved, has the applicant clearly identified the distribution of responsibility for the overall workload (i.e., the responsibilities of each PI or Co-PI involved in the project)?

e. Project Costs (10%):

The justification for and allocation of the budget in terms of the work to be performed will also be evaluated. Is the project cost unreasonably high or low?

***Science Panel Review***

NPRB staff will assign two Science Panel members with relevant expertise to each proposal (a Primary and a Secondary). Science Panel members generally conduct their own independent reviews following the same technical review guidelines above. These are completed and made available to all Panel members in advance of the Science Panel meeting. Science Panel members will adhere to Following NPRB's Conflict of Interest Policy ([http://www.nprb.org/proposals/documents/NPRB\\_coi\\_policy\\_final.pdf](http://www.nprb.org/proposals/documents/NPRB_coi_policy_final.pdf)) throughout the 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 made). 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 (i.e., not as it relates to the RFP category funding caps) 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 or permitting) 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. If the Science Panel chooses not to distinguish between Tier 1a and Tier 1b (see above), these conditional proposals will simply be referred to as **Tier 1 Conditional**. 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 major 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 on the issues. Tier 3 proposals are those that require substantial revision to be competitive and, thus, will not be funded.

NPRB receives over 100 proposals in response to its annual RFPs. To allow the Science Panel sufficient time to discuss the most competitive, a triage system may be used. The Science Panel may forgo detailed discussion of proposals that are not competitive based on peer reviews and initial Science Panel member assessments. Science Panel members retain the option of discussing any of the proposals during the meeting before crafting final recommendations for the Board.

***Reconciling Differences between Independent Technical and Science Panel Reviews***

Ideally, five technical reviewers (three peer and two Science Panel) evaluate each proposal. With so many reviews, evaluations may vary, sometimes greatly. When Science Panel and the outside reviewers disagree (in either direction), proposals and all reviews are discussed at length. The final scientific authority lies with the Science Panel, who will document discrepancies and discussions in support of their final recommendations to the Board. The Board will also have access to all of the technical reviews as well as the Science Panel Summary for every proposal before they make funding decisions.

***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 (see Appendix 1), and will 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 the Advisory Panel (see below) and all summary paragraphs to the Board as soon as possible thereafter.

***Advisory Panel Input***

The Advisory Panel reviews proposals to highlight those proposals that have special stakeholder, community, and other societal relevance and public interest value. The Advisory Panel receives 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 (Tier 1 and Tier 2). The Advisory Panel will review these proposals and only provide a short summary for those that they consider to have significant stakeholder, community, or other societal relevance. These summaries are forwarded to the Board for consideration. The Advisory Panel does not rank proposals, provide comment on the scientific merit of proposals, or comment on the alignment of proposals with category budgets. NPRB's Conflict of



Interest Policy ([http://www.nprb.org/proposals/documents/NPRB\\_coi\\_policy\\_final.pdf](http://www.nprb.org/proposals/documents/NPRB_coi_policy_final.pdf)) will apply with respect to the AP review of proposals.

Relevance Considerations used by the Advisory Panel include:

- **Leverage**—Does the proposal leverage understanding of larger issues or is it especially useful in resource management issues?
- **Timing**—Does the proposal respond to urgent challenges facing stakeholders or take advantage of an opportune timing event?
- **Community involvement**—How strong is the community involvement section of the proposal? Does it create new, enduring resources for community members or employ novel methods worthy of note?
- **Stakeholder involvement**—Are stakeholders and community members an integral part of the project? Is their role in data collection, project planning, or execution noteworthy?
- **Value**—Does the proposal leverage additional funds or is it a particularly good value for the stakeholder benefit?
- **Outreach and education**—Is the education and outreach component noteworthy? Will outreach and/or educational communications reach relevant communities and stakeholders?

### ***Board Review***

The Chair and/or Vice-chair of the Science Panel will attend Board meetings to present the Science Panel summary paragraphs and to answer technical questions. NPRB will consider technical evaluations, Science Panel recommendations, and Advisory Panel input, using scientific merit as defined by the Science Panel rankings as its primary criterion. There are likely to be many more highly ranked proposals than funds available, so to allow for a balanced portfolio and the flexibility to respond to current issues, other factors may be considered at the time of final funding decisions. Such factors include, but are not limited to:

- Pressing fisheries management needs
- Ecosystem information needs
- Other projects currently funded on a similar topic
- Overlap with other ongoing programs
- Competitiveness relative to other proposals of equal merit within a topical area
- Category target funding amounts published in the RFP
- 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 regarding 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 the Science Panel conditions. The Board reserves the right to apply additional conditions on any proposal recommended for funding. Proposers that receive conditional funding by the Board will be asked to resubmit a revised proposal that specifically addresses all concerns raised 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 or not to go ahead with funding. If staff is uncomfortable 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, which along with all technical reviews, Science Panel summary paragraphs, and Advisory Panel comment (where applicable) will be provided as written feedback to the applicants.

Public comment will not be taken during the proposal review and decision-making process. The exact award period will depend upon the requested duration of funding, the decision of NPRB regarding funding amount, the results of post-selection negotiations between the applicant and NPRB staff, and review by NPRB and Department of Commerce officials.

### *Secretary of Commerce Review*

By law, all recommendations of the Board are subject to final approval by the Secretary of Commerce, who must ensure that the project recommendations are consistent with the terms of the NPRB grant award, federal law, and the enabling legislation. Projects recommended for funding by the Board may be denied approval upon review by the Secretary of Commerce. As noted in General Condition 4 (below), the applicants are responsible for obtaining all federal, state, and local permits. Approval of the project by the Secretary of Commerce does not preclude the requirement to obtain such permits.

### **TENTATIVE SCHEDULE**

The schedule is subject to change, except for the proposal deadline, which is definitive. The tentative schedule is as follows:

<b><u>Schedule Item</u></b>	<b><u>Tentative Timeline</u></b>
Release of RFP	September 27, 2013
Online Submission System Opens	early October 2013
Deadline for Proposals	<b>December 5, 2013 at 4 p.m. AKST</b>
Deadline for Signature Pages and Letters of Support	<b>December 12, 2013 at 4 p.m. AKST</b>
Technical Peer Evaluations	January - March 2014
Science Panel Review	March - April 2014
NPRB Review and Selection	mid-May 2014
Initial Notification to PIs	end of May 2014
Submission to Secretary of Commerce	end of May 2014
Grant Agreements to PIs	June - July 2014
Commence Research	no earlier than July 1, 2014 (earliest)

The exact funding awarded to a project will be determined in pre-award negotiations between the applicant and NPRB. Projects should not be initiated until a fully executed sub-award agreement or Memorandum of Understanding (MOU) is received and NPRB has issued a Release of Funds email for the project. *Applicants may not request a project start date before July 1, 2014. Please note that if your project includes funds for a NOAA organization, a formal MOU must be in place and fully executed*

between NPRB and NOAA before the NOAA agency will allow work to begin on the project. This will generally result in a later start date of approximately **September 1, 2014**.

### GENERAL CONDITIONS

This RFP is simply a solicitation of offers and should not be construed as an expectation of award, or as any reasonable basis for detrimental reliance. NPRB 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; NPRB 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](http://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 NPRB to accept any time before July 1, 2014 in accordance with a standard NPRB agreement for the performance of the work proposed. A proposal is accepted only when NPRB sends the applicant written approval and has a fully executed agreement. A proposal accepted for funding does not obligate NPRB to provide additional future funding.
3. NPRB's Subaward Compliance Policy, finalized in March 2009, is based on federal law that governs award agreements, and on comments received in response to an interim compliance policy from NOAA's Federal Law Assistance Division, the National Science Foundation, and grants managers from five major research institutions. This policy will be part of all awards made as a result of this RFP.
4. 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 U.S. 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
  - 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 the law, and only pursuant to mandatory permitting duly granted by the appropriate federal and state agencies. Requirements for special permits, such as those required for taking marine mammals, should be clearly described and indicate whether the permit is in possession or not. Failure to comply 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 that are directly pertinent to a specific

program for the purpose of making audits, examinations, excerpts, and transcriptions. (Circ. A-110. 47(d))

5. 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](http://www.gso.uri.edu/unols/saf_stand/contents.htm).)
6. 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 NPRB. 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 NPRB Executive Director may in his/her sole discretion grant written exceptions if requested in a timely manner. All manuscripts shall acknowledge that funds were provided by NPRB.
7. Successful applicants will be required to provide metadata and data records to NPRB at the completion of their project in accordance with the NPRB Metadata and Data policy (<http://www.nprb.org/projects/metadata.html>). 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.
8. Full execution of newly approved projects may be delayed if investigators involved in previous completed NPRB projects have not fulfilled all their reporting requirements, including metadata and data delivery.
9. 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.

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

### Appendix 1. Science Panel Summary Template

The Primary, in consultation with the Secondary and any other Science Panel members identified during the Panel discussion, should submit to NPRB a Science Panel summary that contains the following elements:

- **2-3 sentences summarizing the proposal**
  - The proposal aims to ....
  - The research will focus on....
  - The goals are to...
- **2-3 sentences summarizing the external reviews**
  - In general, the technical reviewer found this proposal to be ...
- **2-3 sentences on SP discussion**
  - The Science Panel discussed the external and their individual reviews and concluded that...
  - *Provide additional information from the discussion if there were discrepancies between the external and the SP review scores*
- **Recommendation – 6 options (Fund as is Tier 1a, Tier 1b, or Tier 1a or 1b Conditional; could be funded as Tier 2 or Tier 2 Conditional; Do Not Fund, Tier 3)**

Based on the discussion described above,

1. The Science Panel recommends FUNDING this proposal in **Tier 1a** as is.
2. The Science Panel recommends FUNDING this proposal in **Tier 1b** as is.
3. The Science Panel recommends **CONDITIONAL FUNDING in Tier 1a or 1b Conditional**. If funded by the Board, applicants should submit a revised statement of work that addresses the following issues: *{list non-science issues here}*
4. The Science Panel recommends that this proposal **COULD BE FUNDED in Tier 2** as is.
5. The Science Panel recommends that this proposal **COULD BE CONDITIONALLY FUNDED in Tier 2 conditional**. If funded by the Board, applicants should submit a revised statement of work that addresses the following issues: *{list science and, if applicable, also non-science issues here}*
6. The Science Panel places this proposal in **Tier 3** and recommends **NOT FUNDING** this proposal based on the concerns raised above.