

North Pacific Research Board: 2007 Request for Proposals**2007 RFP Regular Research Priorities
for
Projects Commencing in 2007****INTRODUCTION**

The North Pacific Research Board (NPRB) was created by Congress in 1997 to recommend marine research activities to the Secretary of Commerce, funded through a competitive grant program using part 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 must strive to avoid duplicating other research activities and must place 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 off Alaska that enables effective management and sustainable use of marine resources.

The Board, guided by its [Science Plan](#), has funded 139 projects totaling over \$24 million as a result of five requests for proposals released since early 2002. Descriptions of the projects can be found at <http://project.nprb.org/> and fall into seven broad categories as shown in Table 1.

Table 1. NPRB-supported research initiated in 2002-2006.

<u>Categories of Research</u>	<u>Projects</u>	<u>Total Funding</u>	<u>Percent</u>
Ecosystem Studies	34	\$6,180,606	26
Fish and Invertebrates	37	\$5,941,577	25
Salmon	9	\$2,290,037	9
Fish Habitat	12	\$2,715,664	11
Marine Mammals	24	\$3,818,154	16
Seabirds	9	\$1,986,646	8
Humans	14	\$1,231,816	5

The subject of this current notice constitutes the regular 2007 RFP. It is similar in form and content to past NPRB requests for proposals, with research priorities structured around the 2005 Science Plan. It calls for **full proposals due December 1, 2006**. The table below summarizes the priorities and funding targets in this year's RFP. Explanation of the research priorities begins on p. 4.

A special RFP to implement NPRB's Bering Sea Integrated Ecosystem Research Program (BSIERP) will be released later in October. It will envision a 6-year comprehensive program from 2007 through 2012-2013, run by a multi-institutional, multi-disciplinary team, and may include a partnership with the National Science Foundation. It will involve integrated research to improve our understanding of ecosystems processes that underpin the highly productive resources of the Bering Sea Large Marine Ecosystem and their response to natural and human-induced variability. The BSIERP RFP will entail a call for pre-proposals due 22 November and then formal invitations for full proposals.

2007 Request for Proposals: Research Priorities (Total: \$3.895 million)

PLEASE CAREFULLY READ THE EXPLANATORY PARAGRAPHS (p. 4-15) FOR THE RESEARCH PRIORITIES SUMMARIZED BELOW AND BE AWARE THAT ALL SECTIONS HAVE FIRM CAPS ON THE INDIVIDUAL PROPOSAL FUNDING AMOUNTS. PROPOSALS EXCEEDING THOSE CAPS WILL NOT BE PROCESSED.

Table 1. 2007 RFP Regular Research Priorities and target amounts totaling \$3.895 million.

<u>Research Priorities</u>	<u>Target Amount</u>
1. Specific Research Needs	\$235,000
a. Establish a comprehensive sea ice database for the Bering Sea/Bering Strait region	\$100,000
b. Compilation and analysis of chlorophyll data	\$75,000
c. Design Arctic baseline survey north of Bering Strait	\$60,000
2. General Research Priorities on Ecosystems Components	\$3.1 M
a. Lower Trophic Level Productivity	\$400,000
i. Coupling between shelf and inland waters in the ACC as well as the importance of freshwater runoff	
ii. Seasonal and interannual variation in primary and secondary production in southeastern GOA	
iii. Long-term ocean monitoring	
iv. Benthos	
v. Processes driving secondary production	
b. Fish Habitat	\$300,000
i. Effects of commercial fishing on essential habitats of groundfish	
ii. Recovery and resilience of fish habitat	
c. Fish and Invertebrates	\$1,200,000
i. Local impacts of fishing on prey availability for top trophic level consumers	
ii. Bycatch estimation and gear-induced injury and mortality	
iii. Life history, ecology and fluctuations in BSAI crab stocks	
iv. Squid and shark assessment	
v. Other fish and invertebrate research	
d. Marine Mammals	\$500,000
i. Sea otters	
ii. North-Pacific Right Whales	
iii. Cook Inlet beluga whales	
iv. Polar Bears	
v. Fur Seals	
e. Seabirds	\$500,000
i. Seabirds as indicators of forage fish	
ii. Beached bird monitoring program	
iii. Stressed and Endangered Species Survival	

Table 1. Non-IERP research priorities continued

f. Humans	\$100,000
g. Contaminants	\$100,000
i. Shipping risk assessment	
ii. Other contaminants research	
3. Local and Traditional Knowledge	\$100,000
4. Coordination and Partnerships	\$150,000 NPRB (\$300,000 Total)
a. Alaska Ocean Observing System	\$100,000 total
b. Oil Spill Recovery Institute	\$200,000 total
5. Cooperative Research with Industry	\$250,000
a. Topics for Fishing Industry	
b. Topics for Oil and Gas Industry	
6. Community Involvement	\$60,000
TOTAL	<u>\$3.895 million</u>

1. Specific Research Needs**\$235,000**

- a. Establish comprehensive sea ice database for the Bering Sea/Bering Strait region \$100,000

Regional sea ice changes for the past 50+ years in Alaska's coastal seas are important drivers of the coastal ecosystems and can impact the entire ecosystem from primary productivity to marine mammals, fisheries and communities. Despite this importance, detailed statistical trends are unavailable for sea ice extent and concentration, seasonal and annual rate of change of sea ice coverage, thickness, type (i.e. first year, multi-year, and fast ice), and sea ice habitats. NPRB is requesting proposals that will conduct rigorous 'trend analyses' using regional sea ice charts (~50 years), satellite imagery (~30 years), and other available quantitative information with the ultimate aim of producing a 'standard package of sea ice trend information' useful to researchers and stakeholders alike. **Individual proposal funding cap is \$100,000.**

- b. Chlorophyll *a* in the Bering Sea and Gulf of Alaska \$75,000

Evaluate the utility of remote sensing to quantify chlorophyll *a* concentrations in the Bering Sea and the Gulf of Alaska. Develop and implement regionally-specific algorithms for ocean color satellite imagery in both areas at 1, 10 and 100 km resolution depending on data availability. Algorithms will include the ability to mask cloud cover, quantify real estimates of surface chlorophyll concentrations, identify anomalies against pixel-by-pixel time-averaged values and detection of eddies. Within each region, identify areas where ocean color is not reliable either because of colored dissolved organic matter (CDOM), particle scattering or excessive cloud cover. Existing chlorophyll *a* and optical data bases should be used for validation. Analyses may include linking of chlorophyll time series to the physical environment (e.g., winds, SST, sea ice) and other biological distribution patterns (e.g., fish, mammal or seabird distributions). **Individual proposal funding cap is \$75,000.**

- c. Design Arctic baseline survey north of Bering Strait \$60,000

Proposals are requested to design a comprehensive inventory of marine species in the northern Bering Strait/Chukchi Sea region that would serve as a baseline for comparison as the area is impacted by climate change and anticipated recession and eventual loss of sea ice. It would be a significant contribution to IPY during 2008. Such a survey may be funded every 5 years for future comparisons. Proposals would provide a detailed examination of other surveys and inventories in the area, prospective partners, survey objectives, and statistical methodologies including power analysis to detect change over time. **Individual proposal funding cap is \$60,000.**

2. General Research Priorities on Ecosystems Components \$3,100,000

Research Priorities outlined below follow the structure of the Science Plan. It is strongly suggested the Plan be consulted for clarification of appropriate research to be conducted under each heading.

a. Lower trophic level productivity \$400,000

The NPRB expects to fund several projects under this general category with emphasis given to the first four topical areas. **As a result, the individual proposal funding cap is \$250,000.**

- i. Coupling between shelf and inland waters in the ACC as well as the importance of freshwater runoff

Significant volumes of freshwater (snow and glacier melt, and precipitation) are discharged into the Gulf of Alaska, coastal embayments, and inland waters from coastal watersheds. Near the coast, surface waters are typically fresher and less dense than waters farther offshore. The Alaska Coastal Current (ACC), an along-shore current (coast to the right when looking downstream), is the dynamical response to this cross-shore density gradient. Water exchange between deep bottom water, the ACC, and coastal embayments may be the primary physical process influencing the abundance and distribution of plankton that provide food for schools of herring and other small fishes as well as out-migrating juvenile salmon. Yet we have a limited understanding of how much water is actually exchanged, at what frequency, and at what times during the year. Proposals in this category should aim at better understanding the relationship between shelf and inland waters and to provide an improved description of the mixing dynamics and the spatial and temporal variability of flow through straits connecting coastal embayments with the GOA, including southeast.

- ii. Seasonal and interannual variation in primary and secondary production in the southeastern GOA

We have a limited understanding of the relationship between circulation variability and biological variability, particularly the processes causing seasonal and interannual variation in primary and secondary production in the southeastern GOA that may create areas of aggregation of food for upper trophic level species. Proposals are solicited for studies of the spatial and temporal patterns of mixing and circulation particularly as these physical processes relate to the spatial (vertical as well as horizontal) and temporal distribution of nutrients, phytoplankton, and zooplankton. Proposals are solicited that will address seasonal and interannual variation in primary and secondary production in the southeastern GOA, coastal embayments, and inland waters in relation to circulation patterns and creating hotspots for upper trophic level species.

- iii. Long-term ocean monitoring

Proposals are requested to design and implement collection of marine observations to monitor changes in ocean characteristics and marine life within one or all of the three Alaska large marine ecosystems. Priority will be given to monitoring those parameters deemed critical to the determination of ecosystem status. Proposals may maintain or enhance existing monitoring efforts or introduce new approaches to long-term monitoring.

- iv. Benthos

Recent research suggests that climate change will influence the standing stock of benthic species (Grebmeier et al. 2006). Climate impacts on the exchange of energy from the pelagic system to the benthos may contribute to these changes. Indices of the distribution and abundance of benthic

species are needed to evaluate these hypotheses. NPRB seeks proposals that advance our understanding of the role of climate in controlling the coupling between the pelagic and benthic systems with specific emphasis on the response of benthic species to different types of energy partitioning. NPRB will also consider proposals that provide the basis for the development of index surveys designed to assess interannual to decadal trends in the distribution and abundance of benthic species.

v. Processes driving secondary production

The NPRB will consider supporting research that examines the processes that drive and maintain secondary production at the base of the food web from one year to the next, as well as those examining ecosystem implications resulting from changes in community structure, i.e. loss in the dominant species of Calanus. In addition, projects that investigate feeding and reproductive rates of micro and macro-zooplankton relevant to upper trophic level species will be considered. Understanding of such processes will be needed to improve understanding of ecosystem dynamics and the ability to forecast how climate change might impact the transfer of energy to the upper trophic levels.

b. Fish Habitat

\$300,000

The NPRB expects to fund several projects under this general category with emphasis given to the first four topical areas. **As a result, the individual proposal funding cap is \$250,000.** Also please note that no mapping proposals will be supported this year because NPRB is awaiting the workshop report from the recently funded project on mapping technologies (#615). Fish habitat research proposals are requested for the following two categories:

i. Effects of commercial fishing on essential habitats of groundfish

New research is needed to improve the knowledge base used to assess habitat impacts. This element focuses research on four key issues:

- a. Trends over time in spatial distribution and fishing intensity in various habitats.
- b. Determine appropriate spatial and temporal scales to be able to assess the impacts of fishing on habitat.
- c. Magnitude of impacts relative to their potential to influence the sustainability of fish populations.
- d. Evaluation of fish/habitat associations at multiple spatial scales with emphasis on managed fish species throughout their bathymetric range.

ii. Recovery and resilience of fish habitat

The Magnuson-Stevens Fishery Conservation and Management Act requires managers to assess and mitigate impacts of fishing on fish habitat. Based on the fact that fish habitat has been and continues to be impacted by natural changes and anthropogenic activities, proposals should focus on quantifying the recovery and resilience of different fish habitats on several spatio-temporal scales.

c. Fish and Invertebrates

\$1,200,000

The NPRB expects to fund several projects under this general category with emphasis given to the first four topical areas. **As a result, the individual proposal funding cap is \$250,000.**

i. Local impacts of fishing on prey availability for top trophic level consumers

There is a continued need for studies that measure the impact of commercial fishing on the foraging success of top trophic level consumers. NPRB requests proposals that are designed to address this issue. Potential investigators should provide a description of the power of their analysis to differentiate responses of prey and predators to fishing and natural effects as well as a statement regarding the applicability of their results to other areas and seasons.

ii. Bycatch estimation and gear induced injury and mortality

Proposals are solicited that will improve bycatch estimates and examine gear induced injury and mortality for non-target and prohibited species. Innovative sampling techniques are needed to estimate species composition of non-target species without diminishing the quality of the sampling for the target species, as well as to assess gear induced injury and mortality to species not necessarily brought aboard. NPRB requests proposals for field projects that lead to the design and implementation of a statistically credible catch estimation system for species captured incidentally in target fisheries. Proposals should also address how the observer program may best allocate effort to reduce measurement-error variance and/or to incorporate aspects of process error variance into estimates. NPRB is also looking for proposals that will lead towards a more accurate quantification of gear induced injury and mortality, particularly to species not brought onboard.

iii. Life history, ecology and fluctuations in BSAI crab stocks

King, Tanner and snow crab are a major resource in the Bering Sea and Aleutians and yet there is much uncertainty about their current stock assessments. The NPRB is seeking proposals to develop and improve current stock assessment methodologies, and understanding of life history, ecology, and fluctuations in crab stocks.

iv. Stock assessment and life history of squid and sharks

Squid and sharks form part of the 'other species' category used by the North Pacific Fishery Management Council. There is insufficient life history and stock assessment information for these species to be properly managed. The NPRB is seeking proposals that will research and develop improved stock assessments for those stocks that are difficult to assess with current methodology, and to fill gaps within our current understanding of their life history, as well as their distribution and abundance. Studies could include process studies to understand population fluctuations of squid and sharks, but priority will be given to projects that address the concerns listed above.

v. Other fish and invertebrate research

While the above four topics are emphasized in this RFP, NPRB also will consider proposals that address priorities identified in Table 3-4 of the science plan, particularly those also identified by the NPFMC at http://www.fakr.noaa.gov/npfmc/misc_pub/ResearchPriorities06.pdf.

d. Marine Mammals

\$500,000

The NPRB expects to fund several projects under this general category with emphasis given to the first four topical areas. **As a result, the individual proposal funding cap is \$300,000.**

i. Sea otters

The Southwest Alaska stock of sea otters has declined by 55-67% since 1976, with more severe declines (>90%) in some areas, and the decline seems to be continuing. As a result, the stock was listed as Threatened under the Endangered Species Act in 2005. The leading hypothesis to explain the decline, at least in the central Aleutian Islands region, is predation by killer whales. Whether killer whales have caused the decline of the otter species in other areas is not clear and remains controversial. Regardless of the causes of the decline, the rapidly diminishing Southwest Alaska stock is becoming more vulnerable to other risk factors, such as disease and oil spills, as its numbers decline. The NPRB is requesting proposals to assess likely causes for the decline (particularly those that have not already been investigated thoroughly), factors affecting population recovery, and effects of past and current killer whale predation, and/or to evaluate extinction risks due to small population size in some locations (e.g., potential for localized extinctions due to disease outbreaks, oil spills or other catastrophes, and/or Allee effects).

ii. North Pacific Right Whales

The eastern (U.S.) population of North Pacific right whales was reduced almost to extinction in the 1960s, with only scattered individuals and pairs observed during the 1970s, 1980s, and early 1990s. In the summer of 1996 a small group of right whales was discovered in the southeastern Bering Sea. Subsequent research suggests that the population includes more than 20 whales, but critical research is still needed to document the distribution and movements of the remaining whales. To date, all sightings in Alaska waters have been in the summer and early fall, and the population's winter and spring distribution is virtually unknown. In particular, scientists do not know where North Pacific right whales give birth and breed. The NPRB is requesting proposals to investigate the distribution and movements of North Pacific right whales, particularly in spring and/or winter. A number of approaches could be used to conduct such investigations, including aerial, shipboard, and acoustic surveys, sightings from platforms of opportunity, satellite telemetry and/or investigations of historical records. *Proponents should be aware that in 2006 the NPRB funded an investigation of North Pacific right whales based on analysis of historical records; any proposals for research of this type should be careful to avoid duplicating that ongoing project #633.*

iii. Cook Inlet beluga whales

Between 1994 and 1998 the Cook Inlet beluga whale population declined by nearly 50% to about 360 whales, apparently due to over-harvest. Since 1999, harvest levels have been limited, but the population has not recovered as expected and probably is still declining. The population's failure to recover suggests that factors other than subsistence hunting are impeding recovery and indicates that the risks to this population are greater than previously thought. The NPRB is requesting proposals for research to investigate potential causes for this failure to recover, which may include direct and indirect fishery interactions, disease, contaminants, changing ocean conditions, predation, or other stressors or threats to this population. Such studies also might include assessment of population numbers, demography, and condition over time, as well as past and current habitat-use patterns and the physical and ecological characteristics of beluga whale habitat.

iv. Polar Bears

The recent petition to list the polar bear under the Endangered Species Act has placed a higher scrutiny on the status and health of polar bear populations worldwide. The most serious conservation issues facing U.S. polar bear populations are the potential effects of climate change and contaminants, the potential over-harvest of bears (especially in Russia) and the impact of human activities (e.g., oil and gas exploration and development) on polar bear habitat. The NPRB is requesting proposals for research to investigate the potential effects of changing environmental conditions (e.g., sea ice, snow cover, prey availability, and in particular seasonality of those factors), contaminants, and/or the effects of coastal and offshore human activities and disturbance of habitat on the distribution and population dynamics of polar bears. *Proponents should consider the potential for obtaining funding from both NPRB and oil and gas industry groups as described below (see Cooperative Research Opportunity); obtaining such cooperative funding is not required for submitting proposals under this topic, but it is encouraged.*

v. Fur Seals

Northern fur seal populations in the Pribilof Islands show no signs of recovery from recent declines. It remains unclear why fur seal numbers have declined and why they continue to, but suggested possibilities include climate change, food limitation, interactions with commercial fisheries, and predation. The NPRB is seeking proposals that will investigate factors affecting survival of fur seals, but applicants should be aware of existing fur seal NPRB-funded projects (i.e. #414, 513, 514, 636) and avoid duplication as appropriate. Please note that all proposals must document their ability to obtain permits for this work as described in the General Conditions section of this RFP.

e. Seabirds

\$500,000

i. Seabirds as indicators of forage fish

Seabirds are integral members of marine ecosystems in the North Pacific, and may serve as sensitive and cost-effective indicators of their health and status. The NPRB recently completed a project (#516) wherein an international panel of marine bird ecologists synthesized current knowledge of “seabirds as indicators” and concluded that research on the response of seabirds to changes in their forage base would best complement NPRB’s science program. Specifically, data on diet composition (species, abundance, size, age, etc.) and parameters related to foraging effort and prey acquisition at sea (time budgets, range, duration, dispersion, etc.) should be the focus of seabird research efforts funded by NPRB. **Scale** should be an important consideration in proposals. At the Large Marine Ecosystem scale, we seek proposals to help coordinate, facilitate, and, where needed, augment existing colony and at-sea sampling programs throughout Alaska or North Pacific. At the scale of individual colonies, NPRB seeks proposals for intensive studies on selected species at one or a few colonies while simultaneously studying prey patches used by those birds in nearby waters. Details of NPRB’s strategy for developing an integrated seabird research program can be found in the NPRB Project 516 Final Report, available on the web (<http://project.nprb.org/view.jsp?id=7f6ebd4b-3caf-4101-976c-d2a85e134e83>). Proponents should pay particular attention to Section 6: “A Seabird Research Strategy for NPRB”. Proposals will be evaluated on how well they address the priorities identified in this document. **Individual proposal funding cap is \$300,000.**

ii. Beached bird monitoring program

The NPRB is interested in supporting a beached bird monitoring program in Alaska that is well integrated with and supported by communities as a way to assess large-scale patterns of adult seabird mortality at sea and to detect episodic large-scale mortality events that often occur outside the breeding season and frequently are caused by a lack of food. **Individual proposal funding cap is \$100,000.**

iii. Stressed and endangered species

Several species of seabirds are stressed or listed under the Endangered Species Act. Their recovery is a pressing management need as their status can result in significant restrictions on various user groups. Strategies that can lead to the recovery of these populations vary among species. The NPRB is soliciting proposals to develop and test new recovery techniques and ways to enhance survival for these species. **Individual proposal funding cap is \$300,000.**

f. Humans

\$100,000

NPRB is requesting proposals that address any of the following five general research priorities for humans, as identified in Table 3-13 of the science plan. In general these include fishery management and policy, baseline assessment issues, human health and marine resources, human values and resource protection, and climate variability and change. Other human-related issues are also addressed under the LTK component of this RFP. ***Highest priority will be given to proposals that address Table 3-13 AND the following identified by the North Pacific Fishery Management Council:***

1. Analyses of current determinants of exvessel, wholesale, international, and retail demands for principal seafood products from the GOA and BSAI;
2. Pre- and post-implementation studies of the benefits and costs, and distribution of benefits and costs associated with changes in management regimes (e.g., changes in product markets, characteristics of quota share markets, changes in distribution of ownership, changes in crew compensation, as a consequence of the introduction of dedicated access privileges in the halibut/sablefish, pollock, and crab fisheries). “Benefits and costs” include both economic and social dimensions.
3. Prospective and retrospective analyses of changes in the spatial and temporal distribution of fishing effort in response to management actions (e.g., time/area closures, marine reserves, bycatch restrictions, co-ops, IFQs).

Individual proposal funding cap is \$100,000.

g. Contaminants

\$100,000

(Individual proposal funding cap is \$100,000.)

i. Shipping risk assessment

The NPRB is seeking studies that will carry out risk assessments of marine transportation of materials through the Large Marine Ecosystems in Alaska, including a quantification of volume of activity, type, and quantity of cargo. Assessment should also include an evaluation of the

proper prevention and mitigation techniques and strategies for potential maritime shipping incidents in Alaska.

ii. Other contaminant research

While the above topic is the emphasis in this year's RFP, the NPRB will also consider proposals that address any of the research priorities identified in the science plan, including studies of sources, transport, effects, and accumulation of contaminants in subsistence, recreational, and commercial species, and other ecosystem components throughout their life cycles.

3. Local and Traditional Knowledge (Non-BSIERP RFP priorities) \$100,000

The Board is requesting proposals that address one or more of the research priorities identified elsewhere in this 2007 RFP (that are not related to the BSIERP, which has its own integral LTK component) and engage local and traditional knowledge (LTK) and its holders. Potential projects must be responsive to the LTK section of Chapter 4 of the NPRB science plan and contribute to the mission of the NPRB. In addition to the usual proposal evaluation criteria, LTK proposals will be assessed with regard to: (a) the depth to which they engage LTK throughout the project, including design and interpretation as well as the collection of data and information, and (b) the demonstrated commitment of community partners (where "community" may refer to a geographic, ethnic, occupational, or other group), for example as research team members or in letters of support. **Individual proposal funding cap is \$100,000.**

4. Coordination and Partnerships with other Entities and Programs \$150,000

a. Collaboration with Alaska Ocean Observing System \$50,000 NPRB; \$100,000 total

This collaboration between AOOS and NPRB is for the purpose of determining where long-term monitoring using moored buoys in the Bering Sea, Aleutians, and Gulf of Alaska should be located. The study seeks to determine the extent to which the current buoy system provides information useful for monitoring, forecasting and modeling, whether the system is located in the appropriate locations, given our current understanding of those two marine ecosystems, and the extent to which it will meet the projected needs of the Board's integrated ecosystem research programs in those regions. The project also will discuss the benefits and costs of relocating the buoy systems and how to intercalibrate between the old and new positions, if a change in positions is found desirable. The intent is that the results of this study will help the AOOS determine where to deploy its system as funds become available and which components should be maintained by NPRB. **Individual proposal funding cap is \$100,000.**

b. Collaboration with Oil Spill Recovery Institute \$100,000 NPRB; \$200,000 total

This is the second year of collaboration between NPRB and the Oil Spill Recovery Institute (OSRI). Last year, in the 2006 RFP, the collaboration focused on the role of forage fish in the Northern Gulf of Alaska and Prince William Sound. Three proposals were received and NPRB and OSRI agreed to fund Scott Johnson of the NOAA Auke Bay Laboratory for a two-year study of the seasonal distribution, habitat use and energy density of forage fish in the nearshore ecosystem of Prince William Sound.

Again this year, an opportunity exists to conduct collaborative research in the Northern Gulf of Alaska (Yakutat - Kodiak) and Prince William Sound. And again this year, NPRB and OSRI have each committed up to \$100,000 for this collaboration, yielding a total of up to \$200,000. The research topics have changed for this 2007 RFP and are as follow:

1. Socioeconomics: modeling community impacts - \$75,000

The coastal regions of Alaska have experienced and are experiencing considerable environmental and anthropogenic changes to marine and adjacent ecosystems, with potentially significant effects on natural resources available for commercial, recreational or subsistence harvest and other uses, as well as on the coastal economies, culture and social fabric. In order to anticipate and plan for these changes, coastal communities and resource planners in Alaska need to understand the size and directions of social, economic, and cultural responses to ecosystem changes. As a first step, a specific need is a regional economic impact model for estimating the community impacts of the changes to the natural resource base of marine-resource dependent industries and activities. The resulting model should incorporate both traditional and emerging sectors, as well as consumptive and non-consumptive uses, and account for the geographic characteristics of Alaska's coastal regions, as well as relate coastal communities to the rest of the state economy. Existing models can be adapted for Alaska. **Individual proposal funding cap is \$75,000.**

2. Tracking and Monitoring Marine Organisms - \$125,000.

The NPRB and OSRI desire to gather time-space information from tagged marine organisms in Prince William Sound and the broader regions of the northern Gulf of Alaska. This RFP asks responders to design and carry out a pilot project of tagging and tracking to gather information that will further the understanding of how tagged animals use their coastal environments seasonally for feeding and reproductive space. This information should be relevant for decision making to reduce incidental mortality associated with, among other things, different clean-up strategies and long-term restoration work in the event of an oil spill. The successful proposal will demonstrate knowledge of capture techniques, permitting requirements (as needed), the strengths and weaknesses of proposed methods, appropriate statistical analyses, and identify candidate stocks for tagging and tracking. Proposers will indicate the relative economic and ecological importance of stocks of choice, and show how tracking will have application to, among other things, spill response and clean-up activities designed to minimize environmental impacts. Consideration would also be given for proposals that develop new or innovative applications of this technology, such as for forage fish, or that fill knowledge gaps.

A pilot project for up two years is expected that may form the basis for a multi-year program designed to resolve longer-term changes in migration patterns and behaviors for selected species. This work might be done in conjunction with the POST (Pacific Ocean Shelf Tracking) program proposed for Prince William Sound in 2007, or with other existing or new long-term tagging and monitoring studies. Funding of this pilot project is no guarantee of future funding. **Individual proposal funding cap is \$125,000.**

5. Cooperative Research with Industry

\$250,000

The Board is requesting proposals that address one or more of the research priorities identified below ***and engage the fishing and oil and gas industries or others as appropriate.*** Potential projects must be responsive to the cooperative research section of Chapter 4 of the NPRB science plan and contribute to the mission of the NPRB. In addition to the usual proposal evaluation criteria, cooperative research proposals will be assessed with regard to: (a) the depth to which they directly engage the relevant industry throughout the project, including project identification, design, and interpretation as well as the collection of data and information;(b) the applicability of the proposal to addressing pressing conservation and management needs identified for the applicable industry; (c) the extent to which the project will help to build a better understanding between science and industry, and greater confidence in the products of research and in the regulatory process; and (d) scientific integrity, practicality, and cost effectiveness of the experimental design and how the results will be applied to fishery management if such alteration is

beneficial or required. Cooperative research priorities identified by industry are listed below and will be given highest priority. The NPRB also will consider other proposals relating to other priorities in its Science Plan as long as they have a strong cooperative research component. **Individual proposal funding cap is \$250,000.**

a. Topics identified by fishing industry

1. Gear Modification

Gear modification studies are a traditional area for industry/scientist cooperative research. Such cooperative research studies can be very cost effective, and provide a good opportunity to bring practical industry experience and scientific methodologies together. Areas of interest include gear modifications to reduce habitat impacts, gear loss, interactions with non-target species of fish, avoid or minimize marine mammal or seabird interactions, and reduce the impacts of lost gear.

2. Fisheries Monitoring

Improvements in fishery monitoring require at-sea testing and evaluation. Cooperative research efforts can play a useful role in reducing costs and ensuring that projects are efficient, effective, and have industry buy-in. This can range from remote monitoring and video monitoring programs to modifications or refinement of observer program protocols and operations.

3. Bycatch Reduction

Bycatch reduction projects are already underway, such as the salmon and halibut excluder projects. These are closely related to gear modification cooperative research projects. Other kinds of bycatch reduction could include cooperative research projects to look at bycatch in fixed gear or pots, studies to reduce crab mortalities in pot gear, or investigations into modification of fishing practices (time, depth, seasons, etc) to reduce bycatch while maintaining healthy catch rates for target species.

4. Ecosystem Monitoring and Research

Ecosystem monitoring and research could include utilizing platforms of opportunity in the fleet to carry or deploy monitoring oceanographic sensors, cooperative biomass assessments and surveys, marine mammal/fishery interactions and methodologies to reduce such interactions, assist in deployment of acoustic monitors (right whales), evaluation of non-fisheries activities on fish behavior (seismic testing), and cooperative marine mammal or seabird monitoring.

b. Topics identified by oil and gas industry

1. Seaduck Migration and Potential Impacts from Infrastructure

Seaducks, including spectacled and Steller's eiders, migrate to the coastal plain of Alaska during the summer to breed. Common eiders are known to travel long distances from Asia to the eastern coastal plain of Alaska and into Canada during the summer. The population decline of the Steller's eider and spectacled eider in recent years (as identified in the Yukon Kuskokwim delta) resulted in their listing by the US Fish and Wildlife Service under the Endangered Species Act (ESA) as a 'threatened' species. The long-tailed duck also appears to be in decline. Little information exists on the migration pathways of these seaducks between their wintering and breeding areas or on the impacts of human infrastructure

(power lines, oil and gas facility modules, vessels) on survival. Knowledge of the key migratory pathways of these birds, in areas of existing development and undeveloped lands, will be key to developing mitigation measures and monitoring programs for future lease development. In addition, knowledge of impacts from infrastructure that can help improve mitigation approaches will be valuable for future development.

2. Walrus Distribution and Habitat Use in the Chukchi Sea

The Pacific walrus stock, found throughout the northern Bering and Chukchi Seas, are typically associated with the offshore pack ice. Some Pacific walrus have been observed east of Pt. Barrow, however these numbers have been minimal. The Pacific walrus population was estimated at 201,000 animals in 1990. This estimate was considered to be conservative because a portion of the Chukchi Sea was not surveyed due to lack of ice. The USFWS and USGS conducted a population census of the Pacific walrus population in spring of 2006. With support through a grant received through the NPRB, the results of this census are currently being analyzed. Even though those data will update population estimates, the migration pattern of the Pacific walrus is still not completely known. With the recent interest in oil and gas exploration and development in the Chukchi Sea and Bristol Bay region, as well as predictions of changes associated with sea ice presence and movement, obtaining pre-development data focusing on key migration corridors and feeding areas for Pacific Walrus will be important in assessing the potential impacts on this stock due to increased human activity and the potential effects of changes in sea ice.

3. Polar Bear Distribution and Abundance in the Chukchi Sea

The recent petition to list the polar bear under the Endangered Species Act by the Center for Biological Diversity has placed a higher scrutiny on the status and health of polar bear populations worldwide. Considerable work has been and continues to be done on the Beaufort Sea subpopulation by the USFWS and USGS. The USGS Biological Research Division (BRD) has expended significant efforts over the last 20 years to understand the distribution and abundance of Beaufort Sea bears occupying the Beaufort Sea. Information on den habitat and den selection has been instrumental in assisting with minimizing interaction between humans and polar bears. An estimated 1,200 bears comprise the northern Beaufort Sea subpopulation. With the potential for an increase in human activity from exploration and development in the Chukchi and Beaufort Seas, the need for an increased understanding of polar bear movement, preferred denning habitat and reproduction in the Bering-Chukchi subpopulation will be important data to capture for ultimate analysis of potential impacts from human activities. In addition, ongoing research and monitoring of the Beaufort Sea subpopulation remains important. Additionally, with Polar bear distribution closely linked to the seasonal movement pattern of sea ice, which supports their primary prey, ringed seals, an analysis of ice movement/presence in these regions should be a key component of any study design proposed for these subpopulations.

4. Salmon Distribution and Abundance

Western Alaska salmon is an important resource to commercial fisheries and subsistence users. In recent years, Chinook and sockeye salmon have been captured in a stream located in the Northeast NPRA, an area of supposed new territory for these fish. It is unknown whether this is an anomaly or if these fish have been migrating east of Pt Barrow in the recent past. The changes in sea ice movement and water temperatures could be a factor in these changes. A synthesis and analysis of historical distribution of salmon along the northwest coast of Alaska, east of Pt. Barrow should be conducted to understand

historical movement and behavior of Western Salmon. Combined with a program that can identify key migration corridors and movement behavior of these fish moving may assist with understanding the various influences (climate change, human activity) on their population. Inclusion of LTK in proposed projects is highly encouraged. With an upcoming MMS lease sale in the Chukchi Sea OCS in fall 2007, the gathering of annual distribution and abundance surveys in Northwest Alaska should commence in 2007.

6. Community Involvement

\$60,000

The NPRB seeks proposals for small-scale research activities based in communities along the coast of the Gulf of Alaska, Bering Sea and Aleutians, or Arctic Ocean. The intent is to provide community-based organizations and individuals with the chance to gain experience in conducting research projects and to address their research interests and priorities, consistent with the overall mission of the NPRB. This section of the RFP is not intended to discourage community-based organizations from applying for other and larger projects under any other section of the RFP. Instead, it provides an opportunity for those organizations to define priority research, to explain how that research is connected to the NPRB mission, and to describe how the project would be conducted to meet scientific standards as well as community expectations. The NPRB intends to fund two – three projects under this item.

PROPOSAL APPLICATION MATERIALS

All applicants should refer to http://www.nprb.org/research/2007_RFP.htm for a copy of proposal application materials. Please contact the NPRB office by phone at (907) 644-6700, or by email to NPRB's program manager, Francis Wiese (Francis.Wiese@nprb.org) if you need further information.

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 may find all templates at the above mentioned website.

PROPOSAL SUBMISSION AND DEADLINE

Proposals must be submitted online at http://www.nprb.org/research/2007_RFP.htm. Applicants will need to prepare the following information and documents (described in more detail below). Sections 1-6 (except for names of potential reviewers) will be sent out for technical reviews.

1. Proposal summary (abstract of max 250 words)
2. Proposal classification
3. Contact information for the Principal Investigator, Co-Investigators, Collaborators, Grant Managers, and potential Reviewers
4. Research Plan (max 12 pages, *use provided template*)
5. Budget Information and Budget Narrative (*use provided templates*)
6. Resumes (max 2 pages per person)
7. Current and Pending Support (*use provided template*)
8. Community Involvement
9. Letters of support
10. Other Requirements

Online submission for proposals will be available between 1 November and 1 December 2006. During the submission process you will create an account to which you can return at a later date if needed. You will be asked to fill in a variety of forms with information from the list above as well as to upload files (research plan, CV's, etc.). **Templates** for the research plan, budget summary, budget narrative and the current and pending support form will be provided (blue links in the appropriate sections below) and **must be used**. Download these templates, fill them in and upload them again in the appropriate places. Your information will be saved as you move through this process and you will have the ability to update any information you have provided at any time before your final submission.

A link to a generated complete summary page(s) 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, name of the principal investigators and co-investigators that will be associated with the project and their agency/organization affiliation and email address, and the 250 word summary. Please print this page(s) and have it signed by the appropriate legal representatives of each institution participating in this research. Once you have finalized your submission you will be assigned a reference number. Insert this number in the appropriate place on the signed summary page and mail it to:

**North Pacific Research Board
1007 West 3rd Avenue, Suite 100
Anchorage, AK 99501**

It is acceptable for each authorized representative to sign a different sheet of paper and send it in separately. The proposal Applicant should sign the overall summary sheet.

Proposals must follow the guidelines and criteria specified herein and **must be submitted online by 5 p.m., Alaska time, 1 December 2006. In the interest of fairness, no proposals received after the deadline will be considered for funding. The signed summary page generated by the system at the end of the application process must be received at the NPRB office no more than one week after this deadline, i.e. 5 p.m., Alaska time, 8 December 2006. Please note that courier and express deliveries to Anchorage, Alaska, normally require a minimum of two days for delivery.**

Confidentiality of Proposals

If a proposal is submitted, but not funded, only the following information will be released to the public: Proposal title, names of principal and co-investigators, funding amount requested, duration, and the proposal summary page which is generally limited to 250 words or less. If a proposal is approved for funding by NPRB and the Secretary of Commerce, then the full proposal (without salary information) will be released to the public. Proposals submitted in response to the joint NPRB-OSRI collaboration will go through a special joint review process and will be distributed to the OSRI Board and its advisory bodies in accordance with their standard operating procedures.

I. Proposal Package

The full proposal package consists of ten elements:

1. Proposal Summary Page

The proposal summary page will be created automatically based on the information you provide during the online submission process. It will include a **title, project period, names of applicant organization and principal/co-investigators**, a **summary of work** (250 words or less), **requested funds and other support**, and a place for the signature of an official authorized to legally bind the submitting organization. This page is not confidential and will be made available to the public. Ensure that you have not included any social security numbers in any of the fields. The proposal summary page is not a numbered page and thus does not count towards the 12 page limit of the Research Plan.

2. Proposal classification

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

- a. *Keywords*: Describe your project with 5-10 keywords (do not include any words that would apply to items b-c below).
- b. *Ecosystem Components*: Indicate one or more of following ecosystem components addressed in your study: Atmosphere/Ocean, Lower Trophic Level, Fish and Invertebrates, Habitat, Seabirds, Marine Mammals, Humans, Ecosystem Indicators, Modeling, and/or Ecosystem Studies.
- c. *Large Marine Ecosystem(s) (LME)*: Note the LME(s) in which your study takes place: Arctic Ocean, Bering Sea and Aleutian Islands, and/or Gulf of Alaska (consult the Science Plan for LME boundary definitions).
- d. *Research Priority*: Identify ONE primary research priority your proposal will compete under. In Section C of the research plan you may identify up to three secondary research priorities to show the broader responsiveness of your proposals to the RFP, but staff will not move your proposal from the primary category you indicated above.
- e. *Reviewer Expertise Criteria*: Towards the end of your submission you will be provided a form where you will need to fill in criteria that best describe the expertise needed to properly review your proposal.

3. Contact information for the Applicant, the Principal Investigator from each organization, Co-investigators, Collaborators, Administrative Grant Managers, and potential Reviewers (reviewer names will not be disclosed, but please read the [conflict of interest form](#) before proposing reviewers).
4. Research Plan ([use template](#), 12-page maximum including references, figures and tables; continuous line numbers; upload your plan as a **WORD document – other formats will not be accepted**).

The main body of the proposal will be your research plan, **limited to 12 consecutively numbered pages** formatted as follows: All pages must have **1-inch margins** at the top, bottom and sides. Text must be single-spaced, and the font and size must be **Times New Roman 11 point**. No page in the proposal and supporting material may be formatted to any size other than 8.5x11 inches. Color graphics are allowed, but may be reproduced in black and white and should thus be sufficiently descriptive. The research plan (and only the research plan) **must have continuous line numbers** from beginning to end to facilitate review.¹

Failure to comply with any of the formatting specifications above will result in automatic dismissal of your proposal.

Following the provided template, your research plan will have the following elements:

- A. Project Title. Include the **long title**, and suggested a **short title** of up to 60 characters.
- B. Proposal Summary. Briefly explain the project goal and value, and why NPRB funds should be used, in language understandable by individuals not familiar with the specific subject area, such as Congress and the public. The 250-word summary from the Proposal Summary Page would suffice.
- C. Project Responsiveness to NPRB Research Priorities or Identified Project Needs. Identify the specific research priority identified in this year's RFP to which you are responding **and describe how your proposal addresses this priority** (Note that the priority discussed here **must match** the one selected during the online submission process). You may identify up to three secondary research priorities also addressed by your proposed research to show its broader applicability, but should note that your proposal will only be considered and compete for funding under the primary research priority.
- D. Soundness of Project Design and Conceptual Approach. State what the project will accomplish and why it is important. Demonstrate an understanding of the problem being addressed, the present state of knowledge in the field, the project's relation to previous work and work in progress by the principal/co-investigator(s), and the measurable benefits which will result from the proposed research. If this builds on a project previously funded by NPRB, describe your progress to date and the objective of the next funding period. Describe the conceptual or statistical model underlying your experimental work. Present a clear hypothesis and describe the experimental design (and associated power analysis) 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.

¹ In Microsoft Word, on the **File** menu, click **Page Setup**, and then click **Layout** tab. In **Preview**, apply to **Whole Document**. Click **Line Numbers**, and then select the **Add Line Numbering** check box. In the **From text** box, must be **Auto**. In **Numbering**, click **Continuous**.

- E. Timeline and Milestones. Applicants must demonstrate they can achieve an outcome and product within the requested award period, **including data analysis and submission of final reports.** Provide a clear table detailing your timelines and associated measurable milestones (accomplishments and deliverables) that will be used to track and evaluate your project performance through the entire award period. You may additionally describe the product or result that may be used to measure your success (e.g., report, published paper, management implementation, etc.) and how you plan to disseminate the research results.
- F. Project Management. Describe the organization and management of the project and the experience and qualifications of the principal and co-investigator(s). Demonstrate how they will coordinate and collaborate with other projects, and leverage their proposals with support from other sources. Applicants must seek to avoid duplication of other research efforts. If there is more than one investigator involved, the applicant must clearly identify which one will be responsible for the overall work (the designed principal investigator) and whether there is only one binding contract envisioned, or separate ones for each co-investigator. Principal and co-investigators are those that accept responsibility to ensure that the grant is properly administered and completed. Collaborators obligate themselves to work with a project and complete specific tasks, but are not responsible overall for successful completion of the project.
- G. Figures and Tables
Figures and Tables are part of the 12-page limit and should be embedded in the text of the research plan.
- H. References
References are part of the 12-page limit. Avoid using long strings of references for the same statements. List all references used in the Research Plan in a format appropriate for a major journal such as *Fisheries Oceanography*, *Transactions of the American Fisheries Society*, *ICES Journal of Marine Science*, etc.

(Note: This is the end of what should be part of the 12 page limit. Line numbers are not required beyond this part of the proposal package.)

5. Budget Information and Budget Narrative (use templates: [Budget Summary](#) and [Budget Narrative](#))

Budget Summary

Fill in the template and upload the completed Excel spreadsheet using the online submission system. The **Budget Summary** is a series of spreadsheets (one for each institution/organization requesting funds) that detail by year (where year 1 is the first 12 months starting at your proposed start date) the following mandatory budget categories: salaries, fringe benefits, travel, equipment, supplies, contracts/consultants, other expenditures indirect costs (F&A), and other support/cost sharing with other programs. The template Budget Summary includes a summary page that automatically combines all information for up to six different organizations. You may revise this template to include more institutions if necessary. Please note that each organization requesting funds must designate the **Principal Investigator or one co-Investigator** to be responsible for that component of the project. **You must ensure that your total budget requested matches the one entered online. If discrepancies are found between the two, your proposal will be rejected.**

Your budget must include costs of preparing all required reports and publication of results in appropriate scientific journals and a minimum of \$2,000 for education and outreach (see below). The education and outreach funds should not be treated simply as a “placeholder” in the budget. In the Budget Narrative,

describe as well as you can, how you intend to use these funds, and include them under the appropriate budget category. If you do not know how to best use these funds state that you will develop an education and outreach strategy for your project, should it get funded, with the NPRB education and outreach coordinator.

Include travel costs for at least one representative of the project to attend the annual January science symposium in Anchorage for each year during the period of the project, **plus the annual symposium in the January following the end of the project period**, to present your results. Regardless of the project end date, the NPRB will favorably consider no-cost-extensions for the purpose of travel to the January Alaska Marine Science Symposium following the completion of the final report.

Budget Narrative

Guided by the example in the template for the **Budget Narrative**, each institution requesting funds must provide a detailed description of costs listed under each budget category in the budget summary above. You may include associated spreadsheets and other supporting material if applicable.

Clearly state whether or not your project will require any **international travel**. Inclusion of international travel will not impact the review process, but approval of international travel after the approval of the proposal will require a special application that may take up to 3 month to process. Please note that the Fly America Act will apply.

Please be explicit whether your budget includes ship time, or, if it does not, how ship time and costs will be covered by other guaranteed funds.

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 for this program but is encouraged. If an applicant chooses to cost-share and if that application 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 EIRF-based (Environmental Improvement and Restoration Fund) funds are not appropriated, the U.S. Department of Commerce has made a finding that EIRF funds should be considered to be federal funding since an authorization act creates the “fund” in the U.S. Treasury.

Indirect Costs (sometimes referred to as overhead or F&A). The budget form may include an amount for indirect costs if the applicant has an established indirect cost rate 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. It will be retained in the office and not distributed to reviewers.

*Please ensure that your budget has been approved according to your organization's standard proposal approval process. Also, please check your final budget before submission to ensure that the addition of indirect costs as a percentage or some other revision to your budget does not cause your total budget to exceed the individual proposal funding cap for the research priority addressed. **If your proposal exceeds the cap by even \$1, it will be returned without further processing.***

6. Resumes (limited to 2 pages per principal investigator)

The resumes of all principal/co-investigators and other senior personnel involved in the proposal must be provided (collaborators do not need to submit their resumes). Each resume is limited to two consecutively numbered pages and must include the following information:

- a. A list of professional and academic credentials, mailing address, and other contact information including work phone and email address.
- b. A description of current activities relevant to the proposed project.
- c. A list of up to five of your 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.
- d. A list of all persons (including organizational affiliations) in alphabetical order with whom you have collaborated on a project or publication within the last four years. If none, this should be indicated.

7. Current and Pending Support Form (use the [provided template](#))

Upload Word documents using the online submission system. For each principal/co-investigator and other senior personnel involved in the proposal, use the provided template to disclose any current and pending financial resources that are intended to support research related or similar to that included in the proposal, or that would consume the time of the proposer(s). Each proposal must have a section describing sources of current and pending funding, and an explicit statement of present collaborations and commitments. The proposer must also disclose if they have submitted the proposal to other funding sources or if other funds are being used to support the research funded by the Board.

8. Community Involvement

While not necessarily required for most research priorities, researchers should recognize that local community knowledge of, and interest in, natural resources extends beyond physical boundaries of the communities themselves to harvest areas and beyond. Furthermore, researchers should advise communities and people involved or affected by the studies of the purpose, goals, and time-frame of the research and its potential positive and negative implications. Inclusion of local and traditional knowledge and wisdom is encouraged. Proposals for research on specific Alaska Native communities or health issues must have a letter of support from appropriate community and tribal governing bodies (see section 9 below).

9. Letters of Support

Letters of support from relevant management agencies, communities, including Alaska Native communities and tribal governing bodies (if applicable) or others potentially impacted by project activities (e.g. seabird colony work at times of subsistence activities) or benefiting from the projects results should be provided. Letters should be specific about role of collaborators and indicate how the results will be of use or benefit. Upload these letters in the appropriate place during proposal submission.

10. Other Requirements

Applicants should ensure that the following are included in their proposal where appropriate:

Outreach and Education: The principal/co-investigator(s) shall cooperate with the NPRB and its education and outreach coordinator in developing materials for interpretation of the project and research

results to the public, and also must include a minimum of \$2,000 for such activities in each proposal budget (see Budget above).

Permits that may be required as part of the project should be documented in the proposal and, if available, permit applications or granted permit numbers should be provided.

Graduate students: List the number of graduate students and post-docs you intend to make part of your project. Include the level (M.Sc., Ph.D.), duration, and level of support they would receive. Whether or not you are planning to have students or post-docs on your project will not affect the evaluation of your proposal and is intended for informational purposes only.

PROPOSAL REVIEW PROCESS

Initial Screening of Applications. Upon receipt, the NPRB staff will screen applications for conformance with requirements set forth in this notice. This review will consider not only whether the proposal meets the format and structure requirements in this RFP, but also whether it is responsive to NPRB's enabling legislation and criteria and adequately addresses one or more of the research priorities and program needs listed in this notice. If necessary, the Executive Director will request an ad hoc committee of available Science Panel members to help in the initial screening. **Those proposals that are found to not comply with the requirements of the RFP will be rejected without further processing.**

Consultation with Interested Parties. NPRB may consult with NOAA and other Federal and State agencies, the North Pacific Fishery Management Council, and other entities, as appropriate, who may be affected by or have knowledge of a specific proposal or its subject matter.

Independent Technical Evaluations. All proposals will undergo independent, anonymous, technical peer review, conducted by regional and national experts. They will be asked to provide comments and qualitative assessments of the technical aspects for each proposal, as indicated below (percentages indicate the weight that the subsequent review by the NPRB Science Panel will give to the criteria), and an overall summation. The overall summation will include five tiers: poor, fair, good, very good and excellent, recognizing that poor and fair proposals will have little chance of being funded, good and very good proposals may be funded or placed in the second tier, and excellent proposals would most likely be recommended for funding:

- a. Project Responsiveness to NPRB Research Priorities (5%): Has the applicant made a compelling argument that the project clearly respond to the primary research priority? Does the project have the potential to make significant contributions to other research priorities?
- b. Soundness of Project Design/Conceptual Approach (60%): Is there a clear statement of what the project will accomplish and why it is important? Have the applicants demonstrated a clear understanding of the problem being addressed, the present state of knowledge in the field, the project's relation to other work, including their own, and the measurable benefits which will result from the proposed work? Is there sufficient information to evaluate the project technically? What are the strengths and/or weaknesses of the technical design relative to securing productive results? Is there a clear hypothesis to be tested or objectives to be addressed and the expected outcome? 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? The Science Panel will give the following approximate weights to components within this criterion: 10% for background and need; 10% for statement of problem or question; 20% for study design; and 20% for analysis.

- c. Timeline and Milestones (10%). Is there a clear table detailing timelines and associated measurable milestones, 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, etc.) and how the research results will be disseminated?
- d. Project Management (15%): The organization and management of the project, and the project's principal/co-investigator(s) and other personnel in terms of related experience and qualifications will be evaluated. Applicants must demonstrate how they will coordinate and collaborate with other projects and leverage their proposals with support from other sources. Applicants must seek to avoid duplication of other research efforts.
- e. Project Costs (10%): The justification and allocation of the budget in terms of the work to be performed will be evaluated. Is the project cost unreasonably high or low?

Science Panel Review. All proposals and their accompanying technical evaluations will be submitted to the NPRB Science Panel for review and evaluation based on the above criteria and weightings.

Board Review. The North Pacific Research Board will review responsive proposals, consider technical evaluations, Science Panel recommendations, and other factors as appropriate, and decide which proposals to fund. Public comment will not be taken from current applicants when the Board makes final funding decisions next spring. The exact award period will depend upon the requested duration of funding, the decision of the NPRB on funding amount, the results of post-selection negotiations between the applicant and NPRB officials, 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 there is no duplication with other projects funded by NOAA or other Federal organizations, and that the projects selected for funding are those that best meet the objectives of this solicitation. The review will include a determination of compliance with federal regulations, including the National Environmental Policy Act, and may result in additional requirements as a condition for funding (see General Condition 2 below).

D. Tentative Schedule

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

	<u>Tentative Schedule</u>
Release of RFP	September 29, 2006
Deadline for Proposals	December 1, 2006
Deadline for Signature Pages	December 8, 2006
Technical Evaluations	December 2006 – March 2007
Science Panel Review	Early April 2007
NPRB Selection	Late April 2007
Submission to NMFS	May 2007
Final Notification of PIs	May 2007
Grant Agreements to PIs	May-June 2007
Commence Research	June 1, 2007 (earliest)

The exact amounts of funds awarded to a project will be determined in pre-award negotiations between the applicant and NPRB. Projects should not be initiated in expectation of Federal funding until a Notice of Award document is received. Applicants should not request a project start date before **June 1, 2007**.

GENERAL CONDITIONS

This RFP is only a solicitation of offers and should not be construed as an expectation of award, or as any reasonable basis for detrimental reliance. 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, and 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 and be registered in Central Contractor Registration (www.ccr.gov) before any award can be made.
2. Responding proposals are firm offers and shall remain open for the NPRB to accept anytime before June 1, 2007 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 completed agreement. A proposal accepted for funding does not obligate NPRB to provide additional future funding.
3. The applicant is responsible for obtaining all Federal, State, and local governmental permits and approvals for projects or activities to be funded under this announcement. This includes, as applicable, certification under state Coastal Zone Management Plans, section 404 or section 10 permits issued by the Army Corps of Engineers; experimental fishing or other permits under federal fishery management plans; scientific permits under the Endangered Species Act and/or the Marine Mammal Protection Act; and assistance to the Federal government in developing analysis to meet the requirements of the National Environmental Policy Act. All experiments must be conducted in compliance with law, and only pursuant to mandatory permitting duly granted by the appropriate federal and state agencies. Requirements for special permits, for example, those required for taking marine mammals, should be clearly described and whether the permit is in possession or not. The Secretary of Commerce may withhold final approval or stipulate additional conditions on projects to ensure compliance with the above.
4. Projects that require at-sea research using research vessels must comply with all research vessel safety standards in accordance with the guidelines for the operation of oceanographic research vessels owned, operated or chartered by members of the University-National Oceanographic Laboratory System (UNOLS), to ensure that research at sea is conducted to the highest practicable standards of safety and prudence. Those standards also apply to chartered non-institution vessels. (See: http://www.gso.uri.edu/unols/saf_stand/contents.htm.)
5. Funded participants are wholly responsible for the conduct of research, submission of required reports, and preparation of the results for publication. Participants will be required to submit a semiannual report not exceeding two pages and a final report to be posted on the NPRB web site and in other databases. Final reports may be submitted for peer review at the discretion of the NPRB. Failure to submit timely reports or to respond to peer review comments on final reports may result in withheld payments. Every effort should be made to submit research results for publication by an appropriate scientific journal within one year of the completion of study. The NPRB Executive Director may in his sole discretion grant written exceptions if requested timely. All manuscripts shall acknowledge that funds were provided by the NPRB through the U.S. Department of Commerce, NOAA, NMFS.
6. Successful applicants will be required to report their metadata and data to an agreed-upon system (NODC or USGS information infrastructure) within two years of each field season. A project

specific data management and information transfer plan will be required. Among other requirements, the plan will specify the storage media and format(s), month and location for reporting, and other relevant information that may be required by the circumstances of the project.

7. Researchers applying to do research involving human subjects are expected to demonstrate compliance with regional protocols for researcher/community interactions or the specific human subjects screening done by most academic institutions and agencies. The purpose is to ensure that privacy is protected, data are collected in a suitable manner, data are maintained in a secure environment, and results of any study are made available to participants if they indicate their interest.
8. In accordance with federal statutes and regulations, no person on grounds of race, color, age, sex, national origin, religion, marital status, pregnancy, parenthood, or disability shall be excluded from participation in, denied the benefits of, or be subjected to discrimination under this program.