



KENAI PENINSULA BOROUGH
Donald E. Gilman River Center

MEMORANDUM

TO: Milli Martin, Assembly President
Members of the Kenai Peninsula Borough Assembly

THRU: David R. Carey, Borough Mayor
Craig Chapman, Finance Director *C. Chapman*
Brenda Ahlberg, Community & Fiscal Projects Manager *B. Ahlberg*

FROM: John Mohorcich, Donald E. Gilman River Center Director *J. Mohorcich*

DATE: August 20, 2009

SUBJECT: Ordinance 2009-19- 05 accepting and appropriating \$699,300 from the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) to support the Cook Inlet Beluga Whale Recovery Research Project

The borough has received a grant in the amount of \$699,300 from the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) to fund research seeking to understand the conditions that contribute to the inability of the Cook Inlet beluga whale to maintain a stable population.

Upon enactment, the Donald E. Gilman River Center will administer the grant on behalf of NOAA as outlined in the grant agreement. The River Center shall provide the support staff to facilitate the research project in two phases. Phase I will focus on scoping and planning the research projects, including public and scientific input, establishing an advisory research review board, and evaluating the Requests for Proposal process. Phase II will implement the research work garnered in Phase I. The broad areas of study identified in Phase II will be reduced to specific topic areas with a range of goals, objectives, and tasks that must be completed in each study area.

The grant program does not allow indirect costs to be charged against the grant. The Borough's policy, as adopted by Resolution 2006-036, states that "for grants and projects that do not allow an indirect cost to be charged, the respective cost shall be charged to the respective service area receiving the benefit of the grant or project." The NOAA grant is for a Borough department funded with general fund revenues and not a service area; therefore, the policy does not apply. No administrative service fee will be charged for this project.

The areas of research that the borough is considering to explore with funding under this grant are the following:

Objective 1 – *Improve knowledge of Cook Inlet belugas to determine which factors are limiting recovery:* Understanding basic Cook Inlet beluga life history and biology are essential to assessing population health and growth. Population growth may be affected by abnormal age structure, abnormal gender ratio, natural mortality, stranding mortality, low fecundity, low calf survival, predation, disease, etc. Much of this data is gathered through necropsies of dead stranded or harvested animals. By improving the available basic knowledge of Cook Inlet beluga biology and ecology, we will be able to better define which factors are limiting their recovery.

Project – *CI Beluga risk assessment:* Little is known about disease in belugas of Cook Inlet. Due to the small population size and their close associations with other individuals, a disease outbreak has the potential to impact a large proportion of the population. The presence of disease and parasites in the Cook Inlet beluga whales could have significant impact on their survival and reproduction, thus impacting population status and recovery.

- Potential Area of Study: Improve understanding of parasitism and disease.

The contamination of Cook Inlet belugas by persistent pollutants is of concern to the health of the population. Because belugas are high on the food chain, the bioaccumulation of lipid soluble pesticides could produce adverse effects, as observed in other marine and terrestrial mammals. It is important to periodically monitor these levels and continue to obtain tissue samples for archival and/or analysis. Contaminant analysis will be expanded as new concerns arise and new protocols are developed. The continuation of a contaminant study for Cook Inlet belugas will provide the basis for further scientific exploration into the effects of various chemical compounds on health.

- Potential Area of Study: Determine current contaminant loads carried by Cook Inlet belugas.
- Potential Area of Study: Pollution in water and sediment. (Emerging Pollutants of Concern): municipal waste water at the mouth of the Kenai; study of sediments at various points in Cook Inlet within the borough's boundaries.

Objective 2 – *Refine knowledge of Cook Inlet beluga habitat requirements:* Beluga habitat not only includes where the animals travel and abide but also the resources they need to thrive. Identification and protection of important beluga habitat is a cornerstone to recovering this population. Important components of habitat include seasonal foraging area, and prey abundance and concentrations.

Project – *Assess impacts of potential threats to habitat:* Data on beluga habitat are collected in association with other studies; however, no comprehensive set of habitat characteristics for the Cook Inlet beluga is available. Information assessing the value of specific habitat features to Cook Inlet belugas will aid researchers and managers in evaluating the effects of particular

actions on belugas as well as determining which habitat features are the most important to protect to aid in beluga recovery.

- **Potential Area of Study:** Assess the nature of and value of habitat characteristics that are attractive for belugas.

Project – Assess prey base and prey availability: Cook Inlet beluga whales occur throughout the year in Cook Inlet. Interactions among the whales and the available forage base are poorly understood. Much of the forage base is available only seasonally and provides a critical component of the annual energy cycle, not only for belugas, but for the entire Cook Inlet region ecosystem.

- **Potential Area of Study:** Sample prey base and availability in the Kenai River and other streams and estuaries that are or have been used by belugas by trawling, (mouth of rivers that provide prey and selected open areas, Chikaloon Bay, for example)

Objective 3 – Protect valuable habitat: Restoring the Cook Inlet beluga whale to its optimum sustainable population involves protection of habitat needed to support a population of 780 whales. Therefore, we need to understand the impacts of anthropogenic activities on the beluga habitat.

Project – Evaluate anthropogenic factors in beluga habitat: Belugas are not uniformly distributed throughout the Inlet, but are found predominantly in coastal waters. Here, belugas must compete with people for use of nearshore habitats. Presently, there is insufficient data about the Cook Inlet belugas' habitat requirements to fully assess the effects of coastal activities and development.

- **Potential Area of Study:** Acoustic studies: look into how anthropogenic noise may alter beluga habitat.
- **Potential Area of Study:** the impact and potential impact of the oil and gas industry and commercial, recreational, subsistence, and personal use fishing that may create adverse effects on belugas.

Attachments: ordinance and abridged summary of research objectives (MEMO pp2-3)