UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

May 14, 2007

Colonel Kevin J. Wilson
U.S. Army Corps of Engineers
P.O. Box 898
Anchorage, Alaska 99506-0898

Re: Knik Arm Ferry
POA-2006-125

Attention: Ryan Winn

Dear Colonel Wilson:

The National Marine Fisheries Service (NMFS) has reviewed the above referenced Public Notice based on the application from Matanuska Susitna (Mat-Su) Borough. The proposed project purpose is to provide a ferry landing on the Anchorage side of upper Cook Inlet as part of a commuter ferry system between Port MacKenzie and Anchorage. The project site is located in Knik Arm, between the North Star Terminal and Flint Hills, and involves the construction of a pile-supported trestle, linkspan, and ferry berth. The ferry landing structures would cumulatively involve the installation of approximately 66, three foot diameter, steel piles. Additionally the proposed ferry landing would involve the initial dredging of approximately 363,000 cubic yards of substrate for a -25' MLLW turning basin over an area of approximately 12.75 acres.

NMFS provided comments in letters dated April 30, 2003, October 27, 2006, and November 9, 2006, in support of the North Star Alternative because it had the smallest effect on Essential Fish Habitat (EFH) and Cook Inlet belugas. The ferry landing development on the north side of Ship Creek (North Star Alternative) will keep industrial activities focused in an existing industrial area and future multi-purpose uses (recreation, tourism, etc.) on the south side of Ship Creek will facilitate future habitat restoration efforts in the Ship Creek Estuary. Most of the estuary for Ship Creek has been lost to industrial development.

Conservation Recommendations

Fish and Essential Fish Habitat

Under Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation Management Act (Magnuson-Stevens Act), federal agencies are required to consult with the Secretary of Commerce on any action that may adversely affect EFH. The Corps has made a determination that the project may adversely affect EFH. NMFS agrees with this determination. The Magnuson-Stevens Act requires NMFS to make conservation recommendations regarding any federal action that would adversely affect EFH. The construction and operation of the proposed project would adversely affect EFH and anadromous fish if necessary conservation measures are not followed.

1. In addition to the Best Management Practices listed in the EFH assessment, the Mat Su Borough should use vegetated swales and/or an oil/water separator (or equivalent system) that remove total suspended solids (TSS) and oil and grease from the ferry parking lot drainage, associated buildings, and roads. The applicant should also implement maintenance and monitoring plans for this system. Non-point source pollution can have deleterious effects on salmonids, particularly growth in juveniles. Petroleum hydrocarbons damage developing salmon eggs, larvae, and fry at extremely low concentrations. Sculpin eggs and larvae, and juvenile Pacific cod, which may occur in nearshore areas, would likely experience similar effects.

2. As agreed with the Mat-Su Borough, pile driving and other in-water work should be avoided from April 1 through June 30 to avoid disturbing outmigrating smolt. Pile driving can generate intense sound pressure waves that may injure and kill fish, particularly juveniles.

3. Conduct in-water and intertidal work at low tide to the extent possible. Work conducted at low tide will decrease the amount of noise and sediments introduced to the water column.

Cook Inlet Belugas

The Cook Inlet beluga population is a small stock that has been shown to be geographically isolated (Laidre et al. 2000) and genetically distinct (O'Corry-Crowe et al. 1997) from other Alaska stocks. The Cook Inlet beluga's range appears to be largely confined to Cook Inlet (Rugh et al. 2000, 2005) with high density concentrations in the upper Inlet. Since 1994, the Cook Inlet beluga population has declined significantly (Hobbs et al. 2000). The Cook Inlet beluga population was designated as depleted under the Marine Mammal Protection Act (MMPA) in 2000 (65 FR 34590). The 2006 abundance estimate indicates that 302 belugas presently comprise the population, confirming a 5.6 percent decline since 1994. National Marine Fisheries Service proposes to list the Cook Inlet belugas as endangered under the Endangered Species Act (72 FR 19854, April 20, 2007).

The proposed ferry terminals planned at Point MacKenzie and Anchorage could disturb marine mammals, primarily belugas, where noise levels would be significantly elevated, particularly during pile driving and other in-water work. Scientific research on both captive and wild belugas has demonstrated their behavioral reactions to in-water noise. Research has established noise thresholds at which belugas are harassed, and at which they are injured. Sound transmission and receipt is very important to Cook Inlet belugas, which spend their lives in the turbid and regularly darkened waters of Cook Inlet and are almost wholly dependent on the acoustic environment. Man-made noise has the capacity to harass or injure these whales and may also interfere or compete with the beluga's ability to communicate or locate prey (echolocation). Subtle changes in whale behavior due to noise would include avoidance of noise sources.

To protect belugas from construction activities and noise, we request the following conditions:

1. Conduct in-water and intertidal work at low tide to the extent possible. Sound from pile driving is more rapidly attenuated in shallow water than deep water due to reflection at the water surface and absorption by bottom sediments. Conducting other work at low tide will decrease the amount of sediment introduced to the water column.

2. Belugas should not be exposed to sound levels in excess of 180 dB re: 1μPa. The radius surrounding such noise sources should be determined empirically and established based on propagation loss equations fit to site-specific data. (If no Small Take Authorization under section 101 (a)(5) of the MMPA is obtained, Cook Inlet beluga should not be exposed to noise in excess of 160 dB re: 1μPa). If no noise measurements are made, the radius is 2,000 feet from construction activity.

3. The Knik Arm Ferry should require all construction contractors to have one full time shore based marine mammal observer at each construction site (Port MacKenzie and North Star terminal) under contractual obligation and should require observers to complete a day form for field sightings during construction. These observers should be authorized and required to shut down construction operations should a marine mammal, including belugas, enter an area with sound levels in excess of 180 dB re: 1μPa.

Further, we encourage the applicant to explore means to reduce construction and operation noise associated with the Knik Arm Ferry. This may include vibratory rather than impact pile driving, the use of acoustic sleeves around piles, and propeller cavitation reduction during docking.

Please note that under section 305(b)(4) of the Magnuson-Stevens Act, the Corps of Engineers (Corps) is required to respond in writing within 30 days to NMFS EFH Conservation Recommendations. If the Corps does not make a decision within 30 days, the Corps should provide NMFS with a letter to that effect, and indicate when a full response will be provided. Brian Lance is the NMFS EFH contact for this project, and can be reached by telephone at (907) 271-1301 or E-mail at brian.lance@noaa.gov. Barbara Mahoney is the NMFS beluga contact for this project, and can be reached by telephone at (907) 271-3448 or email at barbara.mahoney@noaa.gov.

Sincerely,

Robert O. Mecum

Robert D. Mecum
Acting Administrator, Alaska Region

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PCTS Code -39692/2006/02987