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

July 11, 2007

Colonel Kevin J. Wilson
District Engineer
U.S. Army Corps of Engineers
P.O. Box 6898
Elmendorf AFB, Alaska 99506-0898

Re: POA-2007-1126-D
Wrangell Narrows

Attn: Marcia L. Heer

Dear Colonel Wilson:

The National Marine Fisheries Service (NMFS) has reviewed the general permit agency coordination letter for proposed maintenance work by the City of Petersburg in South Harbor. The proposed work includes removal and replacement of three galvanized steel pipe piles and cathodic protection of 46 anodes welded at the City's crane dock and approximately 156 anodes welded at the 1985 vintage moorage floats.

We offer the following comments specific to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA).

Essential Fish Habitat

Section 305(b) of the MSFCMA requires federal agencies to consult with NMFS on all actions that may adversely affect Essential Fish Habitat (EFH). NMFS is required to make EFH Conservation Recommendations, which may include measures to avoid, minimize, mitigate or otherwise offset adverse effects.

The Alaska Department of Fish and Game (ADF&G) anadromous waters catalogue lists two catalogued anadromous fish streams in the Petersburg harbor area. These streams are: 106-44-10010 (pink and coho salmon and Dolly Varden char) and 114-31-10012 (coho salmon). Nearshore habitats are particularly important to juvenile salmon migrating as fry or smolts from fresh water to salt water in the spring and summer. Juvenile salmon use nearshore marine habitats in spring and early summer for feeding and predator avoidance prior to migration out to sea.

The inshore area of the project location also provides important habitat for several marine species including the following groundfish species: Pacific cod; Pacific Ocean perch; walleye pollock; dusky, shortraker, yelloweye, and rougheye rockfish; sablefish; arrowtooth flounder; flathead and rex sole; skates, sculpins, and various forage fish.

Marine species within the project area may be adversely affected by increased sedimentation and turbidity created during construction, and underwater sound pressure waves generated by pile driving.

NMFS has determined that the project, as proposed, may adversely affect EFH. We offer the following EFH Conservation Recommendations pursuant to Section 305(b)(4)(A) of the Magnuson-Stevens Act:

1. Drive piles with a vibratory hammer. Pile-driving can disrupt migration and can generate intense underwater sound pressure waves that can injure or kill fish (Longmuir and Lively 2001, Stotz and Colby 2001). Vibratory hammers produce less intense sounds than impact hammers (NMFS 2005). Fish have been observed to avoid sounds similar to those produced by vibratory hammers and to remain within the field of harmful sound associated with an impact hammer (Dolat 1997). If an impact hammer is required because of substrate type or the need for seismic stability, piles should be driven as deep as possible with a vibratory hammer before the impact hammer is used.

   If peak sound pressure levels from deepwater pile driving exceed the 180 dB re *u*Pa threshold for injury to fish or are anticipated to exceed acceptable limits implement appropriate mitigation measures when practicable (Appendix G page G-32, NMFS 2005). Measures to reduce sound pressure include: surrounding the pile with an air bubble curtain system or air-filled coffer dam; using a smaller hammer to reduce the sound pressure (because the sound produced has a direct relationship to the force used to drive the pile); or using a hydraulic hammer if impact driving cannot be avoided. The force of the hammer blow can be controlled with hydraulic hammers; reducing the impact force will reduce the intensity of the resulting sound.

2. Drive piles during low tide. Potentially harmful sound pressure waves are attenuated more rapidly in shallow water than in deep water (Rogers and Cox 1988).

3. No in-water work should be permitted from March 15 through June 15 to protect salmon smolts and to reduce the potential impact to schooling and spawning herring.

4. Reasonable precautions should be taken to prevent incidental and accidental discharge of petroleum products and other contaminants. A dock-side emergency oil spill response kit or other appropriate equipment should be made available to allow fast response to any accidental discharge of petroleum hydrocarbons and other contaminants.

Threatened and Endangered Species/Marine Mammals

The project is within the range of the endangered humpback whale and the threatened Steller sea lion, as well as harbor and Dall's porpoises, harbor seals, and minke and killer whales, which are protected under the MMPA. All of these species may occur in the marine waters near Petersburg at any time of year on an opportunistic basis.

The MMPA and the ESA prohibit the injury, harm or harassment of marine mammals. Pile driving introduces high levels of impulsive noise into the water column, with the potential to harass or injure marine mammals. Sound pressure levels (SPLs) in the range of 130-135 dB re: 1*u*Pa have been measured up to one kilometer from an active pile driver (Johnson et. al., 1986). Humpback whales have been observed to react to SPLs greater than 115-129 dB re: 1*u*Pa within 200 meters of a sound source. Reyff (2003) measured SPLs of 159 dB re: 1*u*Pa about 200 meters from a pile driver driving 14-inch diameter hollow steel piles. NMFS normally considers harassment takes to begin at received levels of 160 dB.

NMFS recommends that pile driving not occur if any marine mammals are observed within 200 meters of the platform to reduce the possibility for harassment or injury to marine mammals. The operator must scan the area for the presence of marine mammals. If marine mammals are sighted within 200 meters of the sound source or are observed to be disturbed by the activity at any distance, pile driving must cease until the animals leave the immediate area.

Under section 305(b)(4) of the Magnuson-Stevens Act, the Corps is required to respond to NMFS EFH Conservation Recommendations in writing within 30 days. If the Corps will not make a decision within 30 days of receiving NMFS EFH Conservation Recommendations, the Corps should provide NMFS with a letter within 30 days to that effect, and indicate when a full response will be provided.

If you have any questions regarding our recommendations for this project, please contact Cindy Hartmann at 907-586-7585 or cindy.hartmann@noaa.gov.

Sincerely,

Robert D. Mecum

Robert D. Mecum
Acting Administrator, Alaska Region

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