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

February 1, 2006

Jane Gendron
Project Environmental Coordinator
Preliminary Design and Environmental
Southeast Region
Alaska Dept of Transportation & Public Facilities
6860 Glacier Highway
Juneau, Alaska 99801-7999

Re: Sitka Ferry Terminal Improvements, Federal # NHS-MGE-099-1(1), State Project No. 67931

Subject: Request for Scoping Comments

Dear Ms. Gendron:

The National Marine Fisheries Service (NMFS) has reviewed your request for comments regarding the referenced project, which would replace three damaged timber mooring dolphins at the Sitka Ferry Terminal facility in Starrigavan Bay. The new structures would be constructed of four 30" diameter by ½" walled open-end pipe piles. Two of the dolphins would be constructed at the same location as the older dolphins to be removed. One dolphin will be placed at a new location better aligned with the dock and other mooring structures. Installation of three catwalks and four small steel frame extensions with open grate decking and safety railing will also be part of the project.

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires Federal action agencies to consult with NMFS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect essential fish habitat (EFH). Your letter indicates that the project is located in designated EFH and that an EFH assessment will be provided to NMFS for review. Several anadromous fish streams (Alaska Department of Fish and Game catalog #113-41-0148, -41-0150, -10153, USGS Quad, Sitka A-5) are located in Starrigavan Bay and support runs of coho, pink, and chum salmon as well as Dolly Varden char.

As mitigation you have indicated that work will occur during appropriate timing windows recommended by resource agencies. NMFS recommends a no in-water work window of March 15 to June 15 to protect spawning herring and out-migrating salmonids from disturbance due to pile driving activities. We recommend the following measures to reduce sound pressure levels and other impacts that may harm fish.

1.) All work below the high tide line should be limited to low tidal stages to reduce sound transmission and turbidity.

2.) Drive piles with a vibratory hammer. 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. Vibratory hammers generally produce less intense sounds than impact hammers (NMFS, 2005). Further, 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).

3.) Surround piles with an air bubble system. The use of both confined and unconfined air bubble systems may attenuate underwater sound pressure levels up to 28 dB re:1μ Pa (NMFS 2005).

NMFS is also responsible for administering the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA). Species listed under the ESA that may occur in the project area include threatened Steller sea lions, and endangered humpback and minke whales. Other marine mammals that may occur in the project area include harbor seals, Dall's porpoises, harbor porpoises, and killer whales. Seals and sea lions congregate near the mouths of anadromous streams in spring and fall. Humpback whales are known to be present in the waters around Sitka in both the summer and winter. All of these species may occur in the area at any time of year on an opportunistic basis.

Pile driving may introduce high levels of pulsed or continuous noise into the water column with the potential to harass or injure marine mammals. Sound pressure levels in the range of 130-135 dB re: 1μPa have been measured up to one kilometer from an active pile driver (Johnson et al. 1986). Humpback whales have been observed to react to sound pressure levels greater than 115-129 dB re:1μPa within 200 meters of a sound source (Zoidis, pers. comm.). The type and intensity of noise produced during pile driving depends on a variety of factors, including the type and size of pile, the firmness of substrate into which the pile is being driven, the depth of water, bottom characteristics, and the size and type of the pile-driving hammer. The following recommendations are suggested to protect marine mammals from pile driving disturbance.

1.) A qualified marine mammal observer, who has stop work authority, should scan the area for the presence of marine mammals and direct pile driving to cease if they are observed within 200 meters of the impact area. This recommendation is based on observed responses of humpback whales to sound sources (Zoidis, pers. comm.) and measurements of sound pressure levels of 159 dB re: 1μPa approximately 200 meters from a pile driver driving a 14-inch diameter hollow steel pile.

2.) The observer should direct pile driving to cease if the activity is disturbing marine mammals at any distance from the sound source.

Thank you for the opportunity to comment. If you have any further questions, please contact Linda Shaw at 907-586-7643.

Sincerely,

Robert D. Mecum
Acting Administrator, Alaska Region

cc: *EPA Juneau, Chris Meade
*ADF&G, Tom Schumacher
ADEC, ADNR, USFWS, Juneau
*email

Literature Cited

Dolat, S.W. 1997. Acoustic measurements during the Baldwin Bridge Demolition (final, dated March 14, 1997). Prepared for White Oak Construction by Sonalysts, Inc., Waterford, CT/34 pp + appendices.

Keevin, T.M. and G.L. Hempen. 1997. The environmental effects of underwater explosions with methods to mitigate impacts. U.S. Army Corps of Engineers. https://www.denix.osd.mil/denix/Public/ES-Programs/Conservation/WaterX/water1.html

Johnson, S.R., C.R. Greene, R.A. Davis, and W.J. Richardson. 1986. Bowhead whales and underwater noise near the Sandpiper Island drill site, Alaskan Beaufort Sea, autumn 1985. Reprinted from LGL Limited Environmental Research Associates, King City, Ontario, and Greeneridge Sciences Inc., Santa Barbara, CA, for Shell Western Exploration and Production Inc., Anchorage, AK. 130 p.

National Marine Fisheries Service. 2005. Final Environmental Impact Statement, Essential Fish Habitat Identification and Conservation in Alaska, Vol. 2, Appendix G; National Marine Fisheries Service, Department of Commerce. April, 2005.