



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

December 12, 2005

Colonel Timothy J. Gallagher
District Engineer
U.S. Army Corps of Engineers
P.O. Box 898
Anchorage, Alaska 99506-0898

Re: POA-2005-1813-1
Sitka Sound

Attn: Serena Sweet

Dear Colonel Gallagher:

The National Marine Fisheries Service (NMFS) has reviewed the above referenced proposal by Mr. Chuck McGraw to:

- 1.) Construct a 50-foot wide by 80-foot long concrete dock supported by ten 16-inch diameter driven steel piles
- 2.) Place an 8-foot wide by 60-foot long fuel dock consisting of plastic encapsulated foam and wood decks, held in place by five 14-inch diameter steel piles and accessed by a 4-foot wide by 25-foot long gangway.
- 3.) Place a 66-foot long log breakwater, held in place by three 4000 pound anchors, and formed by three parallel rows of tapered logs. The base diameter of each log would not exceed 16-inches and the tip diameter would be no smaller than 8-inches.
- 4.) Place a total of two steel fender piles and four steel dolphins to support the existing barge facility and the new dock.

The purpose of the project is to improve functionality of Halibut Point Marine Services facility and provide fueling services north of Sitka, Alaska for fishing and other vessels.

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) requires Federal agencies to consult with NMFS on all actions that may adversely affect Essential Fish Habitat (EFH). You have determined that this activity may adversely affect EFH for up to 12 species, including, rex sole, walleye pollock, sablefish, flathead sole, Pacific ocean perch, sculpin, Pacific cod, dusky rockfish, shorttraker rockfish, roughey rockfish, yelloweye rockfish and skates. In addition, several anadromous fish streams are located within five miles of the project site. Consequently, juvenile salmon use the inshore areas of Sitka Sound during spring and early summer for feeding and predator avoidance prior to migration out to sea. The MSFCMA requires NMFS to make conservation recommendations, which may include measures to avoid, minimize, mitigate or otherwise offset potential adverse effects to EFH.

We offer the following EFH Conservation Recommendations pursuant to Section 305(b)(4)(A) of the Magnuson-Stevens Act:



1. For the wooden components of the structures (wood decks and log breakwater), the use of any wood that has been surface or pressure-treated with creosote or treated with pentachlorophenol should be prohibited and alternatives to treated wood that have no or reduced toxicity should be used wherever practicable.
2. Any wood that comes in contact with marine or aquatic environments should be treated with waterborne preservatives approved for use in aquatic and/or marine environments. These include, but are not limited to: Chromated Copper Arsenic (CCA) Type C, Ammoniacal Copper Zinc Arsenate (ACZA), Alkaline Copper Quat (ACQ), Copper Boron Azole (CBA) or Copper Azole (CA). The applicant should only use wood that has been treated in accordance with best management practices developed by the Western Wood Preservers Institute. Treated wood should be inspected before installation to ensure that no superficial deposits of preservative material occur on the wood.
3. Over-water wood structures should be designed to prevent abrasion and splintering of wood.
4. All cutting and boring of treated wood should take place in upland areas; all waste materials should be kept out of the aquatic environment and be properly disposed of upland. Treated wood materials should not be stored in-water. Any cut wood, chips or sawdust from treated wood should be collected promptly and disposed of at an acceptable upland site.
5. All work below the high tide line should be limited to low tidal stages to reduce turbidity.
6. No in-water work should be permitted from April 1 through June 15 of any year to protect out migrating salmon.

For pile driving activities, we offer the following recommendations to reduce sound pressure levels that may harm fish.

7. 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).
8. 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:1 μ Pa (NMFS 2005).
9. Reduce force used to drive the pile by using a smaller hammer or a hydraulic hammer for which the force of the hammer blow can be controlled (NMFS 2005).

Under section 305(b)(4) of the MSFCMA, the Corps is required to respond to NMFS EFH 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.

NMFS is also responsible for administering the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA). We consulted with a Sitka marine mammal expert, Ms. Jan Straley (phone number 907-747-7779), regarding the potential for species protected under these statutes to occur in the project area. Ms. Straley indicated that within Sitka Sound, threatened Steller sea lions (*Eumetopias jubatus*) are present year round. In addition, harbor seals (*Phoca vitulina*) killer whales (*Orcinus orca*) and endangered humpback whales (*Megaptera novaeangliae*) may occur unpredictably in the area at any time of year. All these species are protected under the MMPA from harassment or injury.

This project would use pile driving techniques which 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: 1 μ 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 sound pressure levels greater than 115-129 dB re: 1 μ Pa 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.

We offer the following recommendations to protect marine mammals from disturbance due to pile driving.

- 1.) The applicant should drive at least one test pile prior to construction. During installation of the test pile, sound pressure levels should be monitored to determine the area in which they are ≥ 160 dB re: 1 μ Pa if an impact hammer (pulsed noise) is used or ≥ 120 dB re: 1 μ Pa if a vibratory hammer (continuous noise) is used (i.e., impact area). Equipment and materials consistent with project construction should be used. A sufficient number of piles should be driven to reasonably estimate the size and location of the area. This recommendation is based on observed responses of humpback whales to sound sources (Zoidis, pers. comm.) and measurements of sound pressure levels at 159 dB re: 1 μ Pa approximately 200 meters from a pile driver driving a 14-inch diameter hollow steel pile.
- 2.) A NMFS-approved qualified marine mammal observer, who has stop work authority, should scan the area for the presence of humpback whales, killer whales, harbor seals and Steller sea lions. The observer should direct pile driving to cease when marine mammals are observed within the impact area. The observer should direct pile driving to cease if the activity, including test pile driving, is disturbing marine mammals at any distance from the sound source.
- 3.) Results of test pile driving to determine the impact area, and an observer report of the occurrence of endangered species and marine mammals within or near the project impact area, including any steps taken to minimize harm, should be provided to the NMFS Juneau office within 30 days of the completion of the project.

The recommended conditions will reduce the likelihood that this work may injure or harass marine mammals. However, the MMPA prohibits the taking, including unintentional harassment, of marine mammals unless otherwise authorized. The applicant should be advised of the availability of small take permits under section 101 (a) (5) of the MMPA which allows citizens of the United States to take marine mammals provided such take is incidental but not intentional and involves no more than a negligible impact to the species. Information on these authorizations may be found on our website at <http://www.nmfs.noaa.gov/pr/permits>.

If you have any further questions, please contact Linda Shaw at 907-586-7643.

Sincerely,



Robert D. Mecum
Acting Administrator, Alaska Region

cc: Applicant
*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.

Johnson, S.R., C.R. Greene, R.A. Davis, and W.J. Richardson. 1986. Bowhead whales and underwater noise near the Sandpiper Island drillsite, 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.