



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

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

January 10, 2008

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

Re: POA-2007-1704-2
Ward Cove

Attn: Marcia L. Heer

Dear Colonel Wilson:

The National Marine Fisheries Service (NMFS) has reviewed the above referenced application from Mr. Joergen H. Schade to construct a 0.25 acre harbor facility within a proposed 4.08 acre tideland lease that would be utilized as a breakwater and mooring facility for commercial purposes. The facility would be comprised of a series of five sections of connecting 8 foot wide wooden floats of variable lengths totaling 1,154 feet that will be fastened in place by twelve 6,000 pound concrete anchors and attached to five 6-inch diameter steel floats. One of the connecting wooden float sections of 256 feet would be supported by five 16-inch galvanized steel piles. Blasting may be necessary for installation if pile driving is not feasible and would result in the dispersal of approximately 35 cubic yards of fill created by rock swelling. In addition, a 22 x 28 foot wooden float, a 6 x 80 foot aluminum ramp, and a 12 x 50 foot steel and concrete access dock supported by five 12-inch galvanized steel piles will be installed. The access dock will support an office of which approximately 500 square feet of the building will extend over the Mean High Water line. All wooden components will be treated with ACZA marine treatment.

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) 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's Anadromous Waters Catalog identifies several anadromous streams in the vicinity of Ward Cove within Tongass Narrows. These streams support known pink salmon spawning grounds, coho rearing grounds, sockeye and chum salmon. Juvenile salmon also use nearshore habitat during spring and early summer for feeding and predator avoidance prior to migration out to sea.

In accordance with Section 305(b)(4)(A) of the MSA, NMFS makes the following EFH Conservation Recommendations:

1. No in-water work should be permitted from April 1 through June 15 of any year to protect out-migrating salmon.



2. No docks, ramps, or other structures that block sunlight should be placed in or over eelgrass beds.
3. Drive piles with a vibratory hammer. Pile driving 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.
4. Drive piles during low tide when they are located in intertidal areas. Potentially harmful sound pressure waves are attenuated more rapidly in shallow water than in deep water (Rogers and Cox 1988).
5. In-water blasting should be avoided unless it is the only practicable method for setting piles in bedrock. In-water blasting produces intense underwater sound pressure waves that can kill or injure fish (Keevin 1998). NMFS strongly encourages the use of drilling techniques or other mechanical means for setting piles in bedrock. If underwater blasting must be used, mitigative measures (e.g. stemming) should be employed to contain the explosive energy within the bedrock to the greatest extent possible. Because potentially harmful sound pressure waves are attenuated more rapidly in shallow water than in deep water (Rogers and Cox 1988), blasts should be conducted during the lowest tide level practical.

Additionally, to reduce the possibility for harassment or injury to marine mammals, blasting or pile driving should not occur if any marine mammals are observed within 200 meters of the platform. The operator should 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 should 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 Timothy Wilkins at 907-586-7643 or timothy.wilkins@noaa.gov.

Sincerely,

for Robert O. Mecum, Acting
James W. Balsiger
Administrator, Alaska Region

cc: Applicant
Agent
EPA Juneau, Chris Meade*
ADNR Craig, Mark Minnillo*
USFWS Juneau, Steve Brockman*
ADEC Juneau, Brenda Krauss*
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DCOM Juneau, Joe Donohue*
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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. 1998. A Review of Natural Resource Agency Recommendations for Mitigating the Impacts of Underwater Blasting. *Reviews of Fisheries Science*, 6(4): 281-313.

Longmuir, C. and T. Lively. 2001. Bubble curtain systems for use during marine pile driving. Report by Fraser River Pile & Dredge Ltd., New Westminster, British Columbia. 9 pp.

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.

Rogers, P.H. and M. Cox. 1988. Underwater sound as a biological stimulus. pp. 131-149. *In* Sensory biology of aquatic animals. Atema, J, R.R. Fay, A.N. Popper, and W.N. Tavolga, eds. Springer-Verlag. New York.

Stotz, T. and J. Colby. 2001. January 2001 dive report for Mukilteo wingwall replacement project. Washington State Ferries Memorandum. 5 pp. + appendices.