



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

October 18, 2007

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

Re: POA-2007-1294-1
Wrangell Narrows

Attn: Ms. Marcia Heer

Dear Colonel Wilson;

The National Marine Fisheries Service (NMFS) reviewed the October 5, 2007, agency reviewer letter for the proposal by Mr. Anthony White. Mr. White proposes to construct a pile supported 40-foot by 30-foot floating dock, a 70-foot by 6-foot ramp, a 20-foot by 15-foot staging area, and a 500-foot by 5-foot walkway supported by sixteen twelve inch steel piles. The project site is on Lindenberg Peninsula (on Kupreanof Island) along Wrangell Narrows, south of Petersburg, Alaska. The purpose is for a personal use dock to provide access to the upland lot.

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 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 numerous catalogued anadromous fish streams in Wrangell Narrows relatively near the proposed dock. Falls Creek, number 106-44-10060, is a large stream north of the proposed site with coho, sockeye, pink and chum salmon; steelhead and cutthroat trout; and Dolly Varden char. Colorado Creek, number 106-44-10460, is a relatively large stream south of the proposed dock with coho and pink salmon and Dolly Varden char. In addition to natural production of salmon entering Wrangell Narrows, Crystal Lake hatchery king salmon are released at Blind Slough which is located directly across the narrows from the proposed project.



Near shore 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 the inshore area of Wrangell Narrows during spring and early summer for feeding and predator avoidance prior to migration out to sea.

The inshore area of the project location may provide important habitat for other marine fish species including dusky, shortraker, yelloweye, and rougheye rockfish; arrowtooth flounder; Pacific cod; sablefish; walleye Pollock; rex sole; Pacific ocean perch; skates; sculpins; and various forage fish.

Eelgrass was observed at the proposed project site at low tide (at approximately a tidal level of plus one) by Alaska Department of Natural Resources biologist, Jim Cariello, on an October 12, 2007, site visit (personal communication with Cindy Hartmann). Jim observed eelgrass at approximately the plus 1 to plus 3 tidal levels. Lower intertidal vegetation observed included *Zostera marina* (eelgrass) with clumps of mussels and *Fucus* sp. (rockweed). Vegetation on the upper beach included *Puccinella* sp. (hair grass), *Salicornia virginica* (beach asparagus) and *Ulva* (green leafy seaweed). The proposed dock would extend over a mud flat with a good distribution of eelgrass. The plants observed were small which would be expected in October when the plant is in a dormant or non-growing stage. In the summer these would likely be thick mats of eelgrass with fronds 2 to 5 feet long. NMFS is concerned with the potential impacts to the eelgrass and other marine vegetation from the proposed dock.

Marine species within the project area may be adversely affected by increased sedimentation and turbidity caused by potential grounding of the float structures, underwater sound pressure waves generated by pile driving, exposure to toxic materials, and loss of habitat.

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

1. The proposed floating dock should not ground at any tidal stage. The pile-supported staging area and dock should be elevated at least 5-feet above the substrate at the lowest tides.
2. The use of any wood that has been surface or pressure-treated with creosote or treated with pentachlorophenol should be prohibited. Creosote is a wood preservative typically composed of 85% polycyclic aromatic hydrocarbons (PAH), 10% phenolics, and 5% heterocyclic compounds (Munro, K.A. 2001). Creosote can be a significant source of PAH to marine water. Diffusion of PAH from creosote treated wood is a long-term process that may last the life of the product (Poston, 2001). Alternatives to treated wood that have no or reduced toxicity should be used wherever practicable. If treated lumber will be used, 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. 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.

3. 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.
4. All work below the high tide line should be limited to low tidal stages to reduce turbidity. Potentially harmful sound pressure waves are attenuated more rapidly in shallow water than in deep water (Rogers and Cox 1988).
5. No in-water work should be permitted from April 1 through June 15 of any year to protect out migrating salmon and spawning herring.
6. NMFS recommends that reasonable precautions be taken to prevent incidental and accidental discharge of petroleum products and other contaminants. An emergency oil spill response kit or other appropriate equipment such as absorbent pads should be available on site to allow fast response to small oil spills and accidental discharge of hydrocarbon contaminated bilge waters.

Under section 305(b)(4) of the Magnuson-Stevens Act, 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.

Threatened and Endangered Species/Marine Mammals

Section 7(a)(2) of the ESA directs federal interagency cooperation “to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species” or result in the destruction or adverse modification of critical habitat. NMFS is responsible for the administration of the ESA as it

applies to listed cetaceans, pinnipeds, fish, and reptiles (sea turtles) In southeast Alaska, endangered marine mammal species include the Steller sea lion (western stock, west of 144 degrees West longitude), fin whales and humpback whales. The endangered leatherback turtle has also been documented in southeast Alaska. The threatened eastern population of Steller sea lion (eastern stock, east of 144 degrees West longitude) is also present in southeast Alaska. Salmon from several ESA-listed Evolutionarily Significant Units along the west coast may occur in Alaska waters.

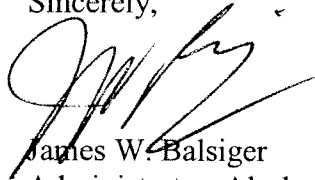
Marine mammal species that are not listed under the ESA are afforded protection by the MMPA. In southeast Alaska, these species include harbor seals, harbor porpoise, Dall's porpoise, minke and killer whales. All of the aforementioned species may swim and forage in marine waters near the proposed project at any time of year on an opportunistic basis. We do not have detailed information on the frequency or magnitude of occurrence of ESA or MMPA-protected species in Wrangell Narrows near the proposed project area. General information on ESA species and MMPA species under NMFS jurisdiction can be found at: <http://www.fakr.noaa.gov/protectedresources>.

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 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 SPLs greater than 115-129 dB re: 1 μ Pa within 200 meters of a sound source. Reyff (2003) measured SPLs of 159 dB re: 1 μ 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 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.

If you have any questions regarding our habitat recommendations for this project, please contact Cindy Hartmann at 907-586-7585. Please direct any questions regarding marine mammals and endangered species to Aleria Jensen at (907) 586-7248 or Erika Phillips at (907) 586-7312.

Sincerely,



James W. Balsiger
Administrator, Alaska Region

cc: Applicant: Mr. Anthony White, P.O. Box K, Longview, WA 98632
EPA Juneau, Chris Meade*
ADNR, Petersburg, Jim Cariello*
ADNR, Juneau, Sadie Wright*
USFWS, Juneau, Richard Enriquez*
ADF&G, Juneau, Tom Schumacher*
COE, Anchorage, Marcia Heer and Victor Ross*
NMFS, HCD, Juneau, Cindy Hartmann*
NMFS, PRD, Juneau, Kaja Brix, Aleria Jensen, and Erika Phillips*
NMFS, AKR, Records
* electronic copy

References:

- 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 by LGL Limited Environmental Research Associates, King City, Ontario, and Greeneridge Sciences, Inc., Santa Barbara, CA, for Shell Western Exploration & Production Inc., Anchorage, AK. 130p.
- 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.
- Munro, K.A. 2002. Population-level and suborganismal responses in fish due to chronic creosote exposure in aquatic microcosms (*Pimephases promelas*, *Carassius auratus*). Masters Abst. Int. Vol. 40, no. 2, p. 444.
- 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.
- Poston, Ted. 2001. *Treated Wood Issues Associated with Overwater Structures in Marine and Freshwater Environments*. White Paper, Washington Department of Fish and Wildlife. <http://wdfw.wa.gov/hab/ahg/overwatr.htm>
- Reyff, J.A. 2003. Underwater sound levels associated with seismic retrofit construction of the Richmond-San Rafael Bridge. Document in support of Biological Assessment for the Richmond-San Rafael Bridge Seismic Safety Project. January 31, 2003. 18pp.
- 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.