



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

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

July 21, 2005

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

Re: POA-2005-258-1
Wrangell Narrows

Attn: Ms. Mary Leykom

Dear Colonel Gallagher;

The National Marine Fisheries Service (NMFS) has reviewed the June 28, 2005, public notice of application for permit for the proposal by Mr. William Menish to construct a 5-foot wide by 660-foot long timber and styrofoam float held in place by eight 1-foot diameter wood pilings. The pilings would be recycled, creosote pressure-treated, marine grade pilings. Float timbers would be pressure treated and secured with galvanized steel hardware. The float will ground on 4-foot by 5-foot Styrofoam floats every 24 feet on center. The remainder of the dock would be held 14 inches off the ground. The float would be anchored on shore at elevation +19.5 feet and would extend to reach -4.5 feet water depth. The purpose of the project is to provide a private float for the use of the 6 property owners in the Minish Subdivision.

NMFS provided the Alaska District Corps of Engineers (Corps) comments on a March 9, 2005, public notice for this float. Please refer to our April 6, 2005, letter to Colonel Timothy J. Gallagher. The redesign offered in the June 28, 2005, public notice extends the length of the float by 40 feet, uses eight treated wood pilings instead of 10 and reduces the area of the float that will ground.

We offer the following comments specific to the essential fish habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA).

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 proposed float would extend over an extensive mud flat with high abundance and good distribution of eelgrass. Please refer to photos taken by Jim Cariello and emailed to Mary



Leykom on June 30, 2005. The substrate is soft mud. The area has significant tidal action. It is likely that any grounding of the float will increase turbidity, reduce light penetration and potentially negatively impact the eelgrass that is present. NMFS remains concerned with these likely impacts and concludes that any grounding of the float would adversely affect EFH.

NMFS is also concerned with the proposal to use creosote-treated pilings and timbers. 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). Pilings over 50 years old still contain sufficient amounts of creosote to kill herring embryos (Vines, et. al., 2000). NMFS research has shown that herring and salmon embryos are sensitive to PAH contamination with morphological defects occurring at PAH concentrations of 3 parts per billion and lower. Based on these findings, NMFS has concluded that use of creosote would adversely affect EFH.

Marine species within the project area may be adversely affected by increased sedimentation and turbidity caused by the grounding of the float, 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. No grounding of floating structures should occur at any tidal stage. The float should be elevated at least 5-feet above the substrate at the lowest tides. To avoid grounding of the float NMFS recommends construction of a pile supported structure, either a fixed pier or piles with stops that would elevate the float at least 5 feet above the ground at low tide. This would avoid having the float in contact with the mud and eelgrass and allow for light penetration from both sides of the 5-foot walkway to the eelgrass below.
2. If the float is designed such that it does not contact the substrate at any tidal stage but is elevated less than 5-feet above eelgrass at the lowest tides then metal or plastic grating should be used as a surface for the float, rather than solid planking.
3. The use of any wood that has been surface or pressure-treated with creosote or treated with pentachlorophenol should be prohibited. Alternatives to treated wood that have no or reduced toxicity should be used wherever practicable. We recommend steel or concrete pilings be used instead of creosote pilings.
4. If treated pilings or timbers must 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.

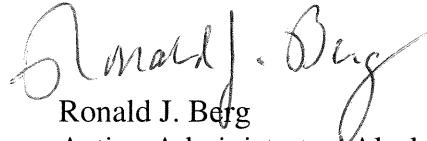
5. All cutting and boring of treated wood should take place in upland areas; all waste materials must be kept out of the aquatic environment and be properly disposed of upland. Treated wood materials should not be stored in-water. Any cut wood, chips or sawdust from treated wood that enters the aquatic environment should be collected promptly and disposed of at an acceptable upland site.
6. Pile-driving can disrupt migration and cause physical damage to fish. To the extent possible, drive piles during low tide periods in intertidal and shallow subtidal areas to prevent injuries to fish. We recommend that a vibratory hammer be used to drive the steel piles. Under those conditions where impact hammers are required for reasons of seismic stability or substrate type, we recommend that the piles be driven as deep as possible with a vibratory hammer prior to the use of the impact hammer. If peak sound pressure levels from deepwater pile driving exceed the 180 dB re μ Pa threshold for injury to fish (which is unlikely if small diameter piles are used) implement measures to reduce sound pressure such as: surrounding the pile with an air bubble curtain, using a smaller hammer to reduce the sound pressure, or using a hydraulic hammer if impact driving cannot be avoided.
7. All work below the high tide line should be limited to low tidal stages to reduce turbidity.
8. No in-water work should be permitted from March 15 through June 15 of any year to protect out migrating salmon and spawning herring.
9. 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.

Provided the above EFH Conservation Recommendations are incorporated through project modifications or permit conditions, NMFS does not object to the issuance of this permit. However, if these recommendations are not incorporated we recommend this permit be denied. Other practicable, less damaging alternatives exist. Papke's Landing is a public launch ramp and dock with upland parking located approximately 1½ miles from the applicants property.

If you have any questions regarding our comments and conservation recommendations for this project please contact Cindy Hartmann at (907) 586-7643.

Sincerely,



Ronald J. Berg
Acting Administrator, Alaska Region

cc: Applicant: Mr. William Menish, P.O. Box 877, Petersburg, AK 99833-0211
Applicant's Representative: Mr. Rick G. Braun, P.O. Box 211, Petersburg, AK 99833-0211 or rsbraun@gci.net
EPA Juneau, Chris Meade, meade.chris@epa.gov
EPA Anchorage, Mark Jen, jen.mark@epa.gov
ADNR, Petersburg, Jim Cariello, jim_cariello@dnr.state.ak.us
USFWS, Juneau, Ed Grossman, edward_grossman@fws.gov
ADF&G, Juneau, Tom Schumacher, tom_Schumacher@fishgame.state.ak.us
COE, Anchorage, Mary Leykom, mary.f.leykom@poa02.usace.army.mil
Records

References:

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.

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>

Vines, Carol A. et. al. 2000. The effects of diffusible creosote-derived compounds on development in Pacific herring (*Clupea pallasii*). *Aquatic Toxicology* 51 (2000) 225–239