



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

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

May 30, 2007

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

Re: POA-2007-583-1
Tongass Narrows

Attn: Robin Leighty

Dear Colonel Wilson:

The National Marine Fisheries Service (NMFS) has reviewed the above referenced application from the City of Ketchikan to construct a pile-supported platform dock over Tongass Narrows. The applicant's stated purpose is to "expand open space and to provide better connectivity between Water Street and the Waterfront Promenade" and to "enhance the use and enjoyment of the waterfront by local residents and tourists." The dock would be used for tourism and recreational activities and would connect the existing pedestrian facility along the Water Street viaduct with the recently constructed Waterfront Promenade. The project will entail installation of fourteen 18-inch diameter steel piles supporting a reinforced concrete pad. The 4,800 square foot dock will extend 90 feet along Water Street and 45 to 56 feet over Tongass Narrows. No structures will be erected on the proposed dock. Piles will be installed with an impact hammer and driven to refusal or anchored to bedrock if overburden depths are not sufficient. The applicant proposes to use a bubble curtain when driving piles between March 1 and June 15.

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 Ketchikan waterfront has been developed extensively. Approximately four miles of shoreline has been altered along the north side of Tongass Narrows by the construction of roads, buildings, harbors, docks, piers, and various industrial facilities. This development has resulted in the loss of or adverse impacts to productive shallow-water habitats. Impacts to EFH include intertidal filling, shading from overwater structures, polluted urban runoff, and debris disposal.

The proposed project would shade 4,800 square feet of EFH. Light is the most important factor affecting aquatic plants. Light levels below overwater structures can fall below threshold levels for the photosynthesis of diatoms, benthic algae, eelgrass, and associated epiphytes. These plants are an essential part of nearshore habitat and the nearshore foodwebs that support many commercially important fish species. Consequently, plant, invertebrate, and fish communities are often limited beneath overwater structures when compared to adjacent, unshaded, vegetated



habitats. The reduced-light conditions found under an overwater structure may limit the ability of fishes, especially juveniles and larvae, to orient, capture prey, school, and avoid predators. Shading from overwater structures may also reduce prey abundance and the complexity of the habitat by reducing aquatic vegetation and phytoplankton abundance (Kahler et al. 2000, Haas et al. 2002). Shading is believed to be responsible for the observed reductions in juvenile fish populations found under piers and the reduced growth and survival of fishes held in cages under piers, when compared to open habitats (Able et al. 1998, Duffy-Anderson and Able 1999).

The proposed dock will shade a large area of shallow-water habitat. Furthermore, the dock is not necessary to provide open space and connectivity at the waterfront. The existing Harbor View Park adjacent to the proposed dock and large cruise ship docks to the southwest provide considerable open space. Connectivity between Water Street and the promenade can be achieved from harbor View Park.

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

1. To minimize the adverse effects of shading on marine resources, the dock should be designed to allow natural light transmission to the seafloor. The dock surface should be designed to include one or more openings equal to 30% of the total surface area of the dock to maximize light penetration to the entire seafloor. The perimeter of the opening(s) could have railings for public safety purposes. Conceptually, the dock could be designed similar to those depicted in Figure 1.
2. No in-water work should be permitted from April 1 through June 15 of any year to protect out-migrating salmon.
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).

Additionally, to reduce the possibility for harassment or injury to marine mammals, 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 Katharine Miller at 907-586-7643 or Katharine.miller@noaa.gov.

Sincerely,



Robert D. Mecum
Acting Administrator, Alaska Region

cc: Applicant
EPA Juneau, Chris Meade*
ADNR, Mark Minnillo*
USFWS Juneau, Richard Enriquez*
ADEC Juneau, Brenda Krauss*
OPMP, Erin Allee*

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Literature cited

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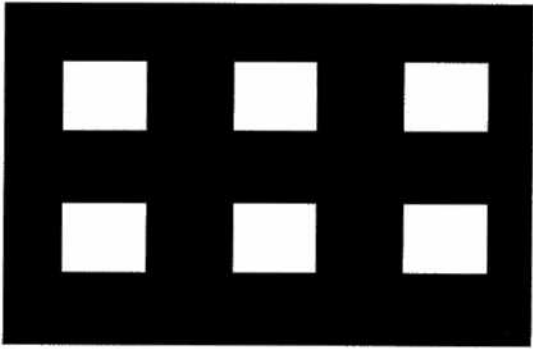
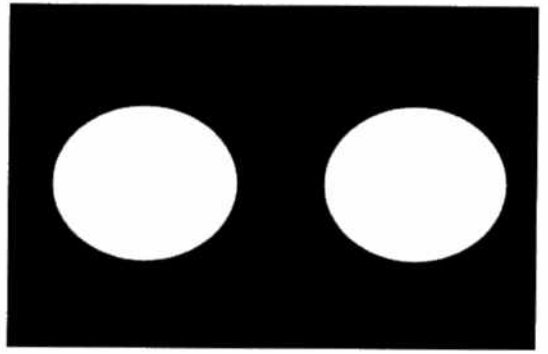
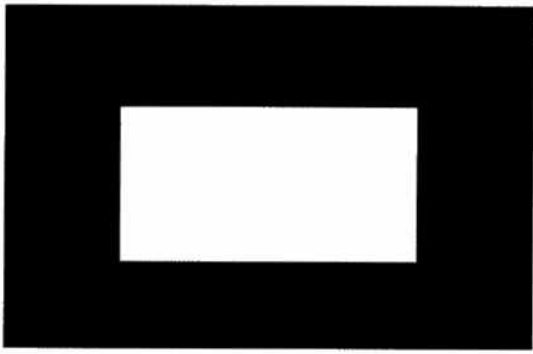


Figure 1