



# KENAI PENINSULA BOROUGH

144 N. BINKLEY • SOLDOTNA, ALASKA • 99669-7520  
BUSINESS (907) 262-4441 FAX (907) 262-1892

JOHN J. WILLIAMS  
MAYOR

October 16, 2006

Ms. Nicole Allison, Project Review Coordinator  
Alaska Department of Natural Resources  
Office of Project Management and Permitting  
550 West 7<sup>th</sup> Avenue, Suite 705  
Anchorage, Alaska 99501

Subject: Ravine Fill and Bank Stabilization (Stark) AK 0609-04-AA

Dear Ms. Allison:

Based on a site visit involving the U.S. Army Corps of Engineers (Corps), the U.S. Fish and Wildlife Service (Service) and yourself representing the Office of Project Management and Permitting (OPMP) and this writer representing the Kenai Peninsula Borough Coastal District (District), a revision to the scope of the subject project has been proposed that removes the requirement for a Corps permit and thus review by the ACMP. However, the District would be remiss if it failed to comment on the terms of the revised project proposal and the prospects for the success of this project.

Under terms verbally agreed to by the applicant, the project will be conducted above the wetland in the ravine. The applicant stated that he would create a bench at the toe of the project on which suitable materials would be placed to act as revetment to retain fill placed above. The top of the fill and the toe of the fill were marked and staked, respectively, at the direction of the applicant.

During the course of the discussion between the applicant, the Corps, the District and OPMP representatives, the issue of potential failure of the revetment was raised. The Corps representative stated that if the revetment fails and the fill soughs into the ravine wetlands the applicant would be required to remove the material.

Further discussion regarding the methods of constructing the revetment and the potential for success of the project continued with input from a representative of the Service, a specialist in bank stabilization. The Service suggested that the proposed method of bank stabilization has a high chance of failure. It was noted that fissures in the existing fill, placed in June of 2006, have opened and indicate the fill is drifting toward the ravine. As water flows into the fissures the soil will be subject to slump.

If the applicant's revised revetment design fails during a storm event, water will be pooled behind the blockage in the ravine until a break-out occurs at which time a substantial amount of silt-laden water will flow to adjoining properties and wetlands downstream causing irremediable damage to adjacent private property and wetland.

A revetment depends upon stable soil beneath the structure for support and should be built only on stable bank slopes. The slope on the applicant's property is highly unstable. The Best Management Practice for retaining fill on slopes steeper than 1:1.5 indicates a bulkhead properly engineered for the site. See U.S. Army Corps of Engineers EM 1110-2-1614, 30, June 95, Chapter 5 and Appendix D for further design recommendations regarding bulkheads.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary Williams".

Gary Williams

Kenai Peninsula Borough  
Coastal District Coordinator