



Northwest Ecological Services, LLC

M E M O R A D U M

To: Mark Johnson, ESA Adolfson
CC: Dannon C. Traxler, Langabeer & Tull, P.S.
From: Vikki Jackson, PWS, Northwest Ecological Services, LLC
Date: May 13, 2009
RE: Fairhaven Highlands - Wetland FF

It appears there is some discrepancy with regard to delineation of Wetland FF, which we are currently attempting to resolve. The CADD data on this delineation was inconsistent in the points picked up, probably results from overlapping several delineations for this wetland. We have recently revisited this wetland to clarify the delineation and found conditions appear to differ slightly from the previous mapping. This ambiguity may be the result of the natural changes within the wetland. We observed many dead or dying trees within the body of Wetland FF and changes to the boundary of the wetland. Dead trees were observed during our initial delineation, but we observed an increase in the number of dead trees and the number of stressed trees. It appears these trees may be responding to changes to hydrology occurring within the wetland. Since there has been no apparent alteration upstream, we present that this wetland may naturally change in size and nature over time. This may be the result of pulses in groundwater release or the accumulation of sediment on the surface or subsurface areas within the wetland that shunts flow to new areas. This is not a rare occurrence for wetlands and streams that occur on slopes.

We would like to continue to review this area, but would recommend using the existing mapping and size calculations for the time being. Since no fill is proposed near this wetland, we believe this should not hinder your review of the project. Regardless of our recent observations, our original delineation was confirmed by the Corps of Engineers and should provide a sufficient base mapping at this time. We don't think that a redelineation is justified at this time because of the fluctuation of the situation and absence of project activity in the area. As final project design evolves, regulators can determine whether field work is necessary.

Thank you and feel free contact me with any questions at 360.734.9484.