



Puyallup Tribe of Indians

May 13, 2016

Tony Fantello
Pierce County Public Works
Maintenance and Operations Manager
Pierce County Surface Water Management

RE: Draft System Wide Improvement Framework (SWIF)

Dear Mr. Fantello

Thank you for the opportunity to comment on the Draft SWIF Plan. We've enjoyed participating in the planning process which has been well organized and very informative. You and your staff are to be commended for a superb job of conveying a large amount of detailed information.

As you are aware, the Puyallup Tribe is keenly interested in the operations and maintenance of existing flood control facilities as this work is inextricably linked to the habitat needs of anadromous fish. The Puyallup Tribe has participated in the SWIF planning process because of its potential impacts to our reservation lands, trust lands, impacts to water quality, to fisheries and to tribal cultural and economic resources. We also understand the need to follow the guidance established by the Army Corps of Engineers (ACE) so that Pierce County levees remain eligible for federal assistance under the PL 84-99 Program.

Pierce County is also aware of the existing 1985 Levee Vegetation Agreement between the County and the Puyallup Tribe which has specific requirements for vegetation retention including tree size, orientation on the levee as well as maintenance coordination and cutting intervals. The need for a plan that balances flood protection needs with those of fish and fish habitat has never been more acute. More people and infrastructure are at risk to flooding while return numbers for several species of salmon continue to trend downward.

The status quo for habitat conditions and flood control features are unacceptable as they do not provide for the habitat conditions needed for fisheries protection much less the recovery of ESA listed stocks. The lower 8.3 miles of the Carbon River and the lower 26 miles of the Puyallup River are both heavily impacted by a dated network of levees which have confined the river to such a degree that annual maintenance activities are all but guaranteed. This channel restriction does not provide for the necessary attributes of a stream channel that would naturally provide for habitat complexity, functional riparian features or suitable holding, spawning and rearing habitat for salmonid fishes.

The pending 2016 fishing season might be the first time ever that Puyallup Tribal fishermen are actually unable to fish for coho due to projected record low adult returns. While many factors contribute to poor overall coho survival, freshwater rearing conditions are important factors that contribute to poor survival rates and lost fishing opportunity for Indian and non-Indian fishers alike.

Water temperature and the need to maintain thermal buffers along our rivers is a subject of increasing importance and also needs to be taken into account under climate change considerations. The concept of diminishing summer base flows and increased sediment transport associated with climate change only adds to the vulnerability of our rivers to absorb radiant energy.

Record water temperatures were encountered last summer in the Puyallup, Carbon and lower White Rivers. Some of this increased thermal input can be attributed to the lack of a functional riparian zone, which is unfortunately a common theme along miles of managed levees. Simenstad (2000) reported that less than 5% of riparian areas in the lower Puyallup River can be considered functional.

The new type of vegetation maintenance/clearing discussed under the SWIF will allow for enhanced viewing of the levee to meet ACE inspection requirements. What is unclear at this time is how the proposed changes will affect the natural growth and maturation of the riparian community and ultimately the vegetation canopy necessary to provide a thermal barrier to solar input.

This matter implies the need to provide a thorough analysis of existing conditions so that a comparison of future conditions can be referenced and so corrective actions can be taken where needed. These reference (existing) conditions must include: water temperature profiles taken throughout the managed levee reaches, canopy density measurements collected in a scientifically meaningful fashion, inventories of woody debris presence and function (in channel, wet; out of channel, dry) pool frequency and of course the frequency and location of levee repairs which the County is already tracking.

This information must be collected, analyzed and accounted for so that we can avoid repeating past mistakes. The aerial photo comparison exercise conducted by the Muckleshoot Tribe and discussed in their SWIF comment letter (May 13, 2016) points to a disturbing truth. The MIT work clearly identifies the potential for maintenance actions leading to the need for more maintenance actions at or near the same location.

The consequences of levee repairs, adding additional rock to the toe and face of the levee, of confining an already confined channel, leads to host of insidious side effects including: increased stream power, channel simplification, bed scour and subsequent redd loss and finally more levee erosion downstream leading to vegetation loss and the need to repeat the same absurd exercise.

We appreciate the opportunity to participate in the SWIF plan development process and your attention to our comments. We also look forward to continued coordination with Pierce County on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Russ Ladley", with a long, sweeping horizontal stroke extending to the right.

Russ Ladley
Resource Protection Manager

CC: Penny Mabie, Enviroissues

Simenstad , Charles A., 2000. Commencement Bay Aquatic Ecosystem Assessment-Ecosystem – Scale Restoration for Juvenile Salmon Recovery. UW-2003. School of Fisheries, University of Washington ; Seattle WA.