

Hi Laura,

Thank you for the opportunity to provide preliminary comments (attached) on the draft Lake Creek Anadromous Barrier report. The Service understands that there will be additional opportunity to provide comments on this study, per language on p.12 (Anadromous Barrier Survey and Confirmation) of Attachment 1 of the Lake Creek Instream Flow and Habitat Assessment Study Plan, dated April 26, 2005. The Service looks forward to hearing comments from other interested parties and working with you on refining this study during the study plan meetings scheduled in June, July, and August.

(See attached file: USFWSCommentsPassageReport.doc)

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USFWS comments on the Draft Lake Creek Anadromous Barrier Report - 4/29/2005

Section 1.

1st Paragraph.

Reword the following sentence as a point of clarification: ~~There are also plans to release~~ *Searun* cutthroat trout *are also transported and released* above the dams (~~City of Tacoma 2000~~).

2nd Paragraph.

The waterfall at RM 1.9 is referred to as an anadromous barrier. This is a premature conclusion, as the referenced literature refers to this waterfall as the “probable end of anadromous fish distribution”. This waterfall should be referred to as a “probable anadromous barrier”, until a comprehensive analysis is conducted. In addition, Figure 31 of the Pre-Application Document (PAD) states that this waterfall is located at RM 2.05. This difference in RM needs to be resolved.

Section 2.

2nd Paragraph.

Describe the longitudinal profile in greater detail, including the following at a minimum: the interval that measurements were taken, and what criteria were used to select elevation break points that were measured. It appears, as shown in Figure 3, that measurements were taken at longer intervals than one foot. In order to provide sufficient detail, measurements should be taken every foot, with additional measurements taken at grade breaks.

Page 5. Last Paragraph.

State the reasons why fish condition should no longer be considered in determining the ability of a salmon or trout to negotiate a barrier.

Section 3.

This entire section would be easier to understand if it was separated into three parts, one part each for low, medium, and high released flows.

Page 7. Description of Potential Barrier. 2nd to Last Sentence. Also Page 8, Horizontal Distance, Last Sentence and Figures 4, 5, and 6.

It is stated that there is only one possible route through the waterfall, however, this statement is based on the maximum controlled flow release of 46 cfs. Bankful flow for Lake Creek is approximated at 285 cfs (USGS, 1984 in USFS Spawning Gravel Transport study request dated 3/11/2005). Plot the water surface elevation (WSE), and any additional flow paths, for the waterfall/chute complex and for the plunge pool at a range of higher modeled flows of 75, 100, 200, 285, 300, 400, and 500 cfs.

Page 7. Description of Potential Barrier. Last Sentence.

The two flow streams need to be plotted in the Figure 3 profile.

Table 5.

The depth of the plunge pool at high flow is erroneously stated as 3.02. State the correct number.

Page 7. Vertical Distance. 1st Paragraph.

Complete the second sentence.

Page 7. Vertical Distance. 2nd Paragraph.

In the description of the fish landing zone, velocity measurements were taken at the lip of the falls. Recommend taking velocity measurements at an expected distance in from the lip, where it could be anticipated that a leaping fish would land.

Page 8. Horizontal Distance. 2nd Paragraph.

The waterfall chute complex is prematurely referred to as a barrier here and several other places throughout the document. Save the passability determination for Section 4, Conclusions.

Page 8. Chute Conditions. 1st Sentence.

Insert the following italicized language, “Under all flow conditions *that were evaluated*, the upper half of this chute is steep and very narrow”.

Page 9. 1st Paragraph. Last Two Sentences.

Figure 3 is missing WSE data from approximately 15 – 18 feet on the x-axis. This area potentially provides a resting area for fish, therefore, obtain and plot this data.