



Memorandum

Subject: SRFB Cost Amendment Request

PROJECT: 15-1231 RST, MASHEL EATONVILLE RESTORATION PHASE III

To: Ashley Von Essen (WRIA 11 LE Coordinator) and Elizabeth Butler (RCO)

From: Brian Combs, SPSSEG

Date: August 24, 2016

Request Summary: South Puget Sound Salmon Enhancement Group (SPSSEG) is requesting a \$180,000 cost increase for the Mashel Eatonville Restoration Phase III Project (the project) to afford:

- habitat design improvements (described below)
- changes resulting from the SRFB review panel comment process
- additional road access needs
- project planting, and
- higher construction costs resulting from recent industry economic trends.

Additional NWIFC PCSRF matching funds in the amount of \$110,000 are being provided by the Nisqually Indian Tribe to contribute to the additional costs and to meet the additional match need.

Background:

An earlier Preliminary Design was completed for the project in 2009. The project was selected for advancement in 2015 and was ranked as a high priority within the watershed. During the Review Panel site visit in 2015 several requests were made by the Panel to address possible project improvements. These requests included looking at armor removal to allow broader channel migration, addressing the need for side channel improvements, further analysis of the landslide, and addressing general design improvements. An initial project budget was submitted with the grant application which relied on an estimate of project needs and projected costs at that time however an additional funding need was identified during the Preliminary Design stage which has led to this amendment request.

This project represents the third phase of reach-scale treatments within the Mashel River. The proposed restoration measures for the project site (Reach 7) include the construction of several Engineered Log Jams (ELJ's) and Large Woody Debris elements (LWD), side channel activation, armor removal, and re-vegetation. This project and previous phases were identified in the 2004 assessment by Watershed Professionals Network which provided the restoration prescription for multiple reaches. The Nisqually Chinook Recovery Plan identified the Mashel River as a high priority for restoration (specifically improving habitat complexity) because of its

importance for life history diversity. In the draft Nisqually Steelhead Recovery Plan, the Mashel River ranked highest for restoration, overall, followed by the Nisqually River mainstem, when considering abundance and productivity.

The additional estimated costs are associated with the following elements:

- Rip-rap armor removal to allow better channel migration (requested by the Review Panel). Modelling and design work enabled us to see a pathway for adding this element however a flood containment berm is needed to reduce flood risk.
- Flood containment berm: this is needed to reduce flood risk resulting from the rip-rap armor removal.
- Improved LWD elements: the type and location of the ELJ's and LWD has been updated to maximize habitat gain. These concepts were "approved" by the review panel during the preliminary-concept discussion.
- As-built survey: this was accidentally not included in the initial cost estimate.
- Updated planting costs for 6 acres of floodplain planting and ELJ planting.
- Updated road access costs: these costs include road improvements needed to access the site from the north access and/or improvements to the existing south access.
- 2016-17 dollars: The overall cost estimate was updated to reflect current economic conditions, which have changed in the last two years with increased economic activity (i.e. costs have gone up). To provide context, SPSSEG has received "high" bids on three projects in 2016 and reports from our partners indicate that in general bids are going up with the increased economic activity seen across the region. Thus, cost estimates from even one or two years ago may now be inaccurate.

Match: The Nisqually Indian Tribe is providing an additional \$110,000 in PCSRF funds (to be awarded through the NWIFC) and \$10,000 of in-kind match to supplement the requested SRFB funds. These additional matching funds will exceed the original 15% commitment and fully fund the estimate of construction costs. Based on the current estimate, the project will also have a leverage surplus of \$45,250 beyond the required match.

Timing: The project was initially slated for construction in 2016 however it was delayed in order to finish the design work, geo-physical assessments, modelling, and planning. Currently the project is slated for construction in 2017. Considerable progress has been made in developing the project and with Preliminary Designs now complete, the 2017 construction time frame should be achievable. Delaying the project further could lead to additional cost increases resulting from changing economic trends and the prolonged costs of managing the project. It would be incredibly inefficient to put the construction on hold only to be at the mercy of the bidding environment in 2018 or beyond. The requested \$180,000 has been approved by the Lead Entity Work Group which has made room for this amendment in their annual planning. Funding availability could decrease in subsequent years as the watershed priorities and funding allotments change. As such, we feel confident that approving this cost amendment now is reasonable and allows for a high chance of project success. Delaying the project would lead to a higher risk situation.

Funding Request Table

Source	Original	Proposed
RCO Grant Agreement	\$1,190,000	\$1,370,000
Sponsor Match	\$210,060	\$295,000
Sponsor Non-match		\$45,250
Total:	\$1,400,060	\$1,665,000

Supporting Attachments in PRISM:

- Preliminary Design
- Cost Estimate
- Model Output: “Mashel River Reach 7 Alternative 2 Water Surface Elevation (WSE) Differences for 100-year Flood Event”
- “Mashel River Reach 7 Landslide Geomorphic Assessment”
- “Seismic Refraction Survey Report” (geophysical survey of subsurface conditions near the proposed ELJs and along the lower half of the landslide.