



**Nooksack Indian Tribe  
Natural and Cultural Resources Department  
REQUEST FOR PROPOSALS**

**RFP Issue Date: 2/5/2021**

**Proposal Due Date: 2/21/2021**

**Notification of Selection: 2/26/2021**

**South Fork Nooksack Riparian Forest Assessment**

The Nooksack Indian Tribe Natural Resources Department is seeking proposals from interested parties for a study to model current stand conditions of the riparian zone along the South Fork and project those conditions into the future. The project will also assess the impacts of potential riparian silvicultural actions.

**Introduction**

The South Fork Nooksack River is temperature impaired, with summer water temperatures commonly exceeding the preferred thresholds for salmonids. The effect of shading on stream temperature was assessed as a part of a Total Maximum Daily Load (TMDL) analysis for temperature (Kennedy et al. 2020). The analysis compared the temperature impacts of the current riparian conditions and mature buffer based on the site potential tree height for the riparian zone. Building on this, climate change scenarios were incorporated into the modeling and a “natural condition” scenario was developed to represent climax riparian conditions, based on maximum old growth Douglas fir tree heights (Butcher et al. 2016). The results of this analysis showed that restoring the river and riparian area to a natural condition could largely off-set the impacts of climate change on stream temperature through the 2080s. To better understand the affects of riparian stand characteristics on stream temperature, the Nooksack Tribe Natural Resources has been working with Western Washington University to use remote sensing and forest plot data to model the current stand conditions of the riparian zone of the main forks of the Nooksack River.

**Project Description**

The South Fork Nooksack Riparian Forest Assessment Project will cover the riparian zone of the main channel of the South Fork from its confluence with the mainstem of the Nooksack to the headwaters at river mile 36. This will cover approximately 1,750 acres of riparian area, with a mix of forestry and agricultural land use. The project include evaluating the existing plot and model output data developed by Western Washington University and determine how it can be used the for this project, identifying any data gaps that need to be filled and provide recommendations for addressing data gaps. The Nooksack Tribe will provide all baseline data and can provide support with data management and GIS interfacing. Limited data collection to fill critical data gaps will be coordinated with the Nooksack Natural Resources Department as needed.

Once the limitations of the data are determined, the contractor will propose a modeling approach to address, *to the extent possible*, the project objective of determining whether the South Fork Nooksack is on-trajectory to meet the site potential conditions modeled in the SF Temperature TMDL, determine the expected timeframe for meeting these conditions based on individual stand conditions, and identify silvicultural prescriptions that could speed riparian stand recovery.

### **Scope of Work**

There is limited funding on hand to scope and initiate model development, so the project may need future refinement or phasing to meet the project objectives. The timeline for the South Fork Nooksack Riparian Forest Assessment contract will be from March 2021 through December 2021. Expected deliverables<sup>1</sup> include:

- Forest growth model output including:
  - Growth for current stand conditions
  - Proposed silvicultural actions over the project period
  - Growth for alternate scenario that includes silvicultural actions
- Model results exported in a digital spatial format (either as a geodatabase, or as data tables that could be linked to geospatial data)
- Brief summary report of methods, findings and recommendations that could be used as the basis for suggesting alternative riparian management strategies.

### **Special Notes**

Due to COVID-19 restrictions, all meetings will be remote and any site visits will need to follow social-distancing protocols. Funding for this project is provided through a grant with the Bureau of Indian Affairs. The estimated budget for this project is \$15,000.

### **Submittal of Proposals**

**Proposals must be received by February 21, 2021, and should be either hand-delivered, mailed or emailed to one of the addresses below:**

Michael Maudlin  
Nooksack Indian Tribe  
Natural Resources Department  
Physical Address: 5016 Deming Road, Deming, WA 98244  
Mailing Address: P.O. Box 157, Deming, WA 98244  
Phone (360) 592-5140 x. 3136  
Email: [mmaudlin@nooksack-nsn.gov](mailto:mmaudlin@nooksack-nsn.gov)

**Notification of probable award will be made by February 26th, 2021. Actual award is contingent upon Tribal Council approval.**

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<sup>1</sup> Note that only final deliverables are listed here. We expect NIT staff to have the opportunity to review and provide input to draft deliverables.

### **Submittal Requirements**

Proposals should be succinct and include the following:

1. Proposed approach to producing the required deliverables, detailed by task, with cost estimates and timeline for each task.
2. Description of relevant project experience, and a list of clients who can be contacted as references for past projects that involved growth modeling and silviculture.

### **Evaluation Criteria**

A committee of Nooksack Tribe Natural Resources staff will review all qualified responses. Highest qualified firms may be asked to provide a presentation of their proposals to the selection committee. All responses will be evaluated using the following criteria:

- Experience/Qualifications (40%):
  - Familiarity with: (1) riparian forest characteristics; (2) growth modeling of a variety of riparian species and stand conditions; (3) silvicultural methods for riparian restoration, including planting and thinning.
  - Prior experience and proven success at using modeling to develop forest strategies
  - Demonstrate ability/ experience to accomplish proposed tasks.
- Proposed approach and timeline (35%)
- Cost-effectiveness (25%)

Figure 1: South Fork Nooksack Project Area

