

REQUEST FOR PROPOSALS

Analysis & Design Services:

Restoring Natural Drainage Patterns & Increasing Water Storage in Carrols Creek, A Tributary to the Little Klickitat River, Goldendale, WA



YAKAMA NATION FISHERIES PROGRAM

Yakama Nation Fisheries - Klickitat Field Office

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Proposals Due: October 15th, 2021 - 5:00 pm

REQUEST for PROPOSALS for ANALYSIS & DESIGN SERVICES

I - PROJECT OVERVIEW

The **YAKAMA NATION (YN)** Klickitat Watershed Enhancement Project (KWEP) is soliciting a Request for Proposals for Analysis and Design Services in the Little Klickitat River Basin on a tributary known as Carrols Creek in Washington State. This project will include an assessment of groundwater conditions, site surveys to determine design alternatives, and a selected design to attain shallow groundwater storage within the meadow and to route three existing channels via a natural drainage pattern.

KWEP works to restore, enhance, and protect watershed function in the Klickitat subbasin. Efforts emphasize restoration and protection of Endangered Species Act (ESA)-listed anadromous fish. Activities focus on improving stream processes by resolving watershed constraints and improving habitat conditions in support of species recovery.

The overall goal of the project is to increase the residence time of surface and ground water within the project reach with the intent of providing cooler water inputs to Carrols Creek during the critical low-flow summer and fall season. These flows will contribute to reducing stream temperatures in the Little Klickitat River Watershed. The expected approach to achieve this goal is to restore overbank flooding to increase infiltration in meadow soils and increase groundwater storage in the meadow during winter and spring.

Full reconnection of the floodplain wetland via low bank channel dimensions, remaindering, and added structural diversity are goals of the project but on-site infrastructure and road alignments will need to be taken into consideration. Proposals in response to the RFP should demonstrate approaches that will evaluate existing stream, meadow, and hydrologic conditions, theoretically reconstruct general or regionally pervasive historic conditions, and investigate changes resulting from past management practices. The RFP should include the firm's proposal for development of an alternative analysis for interventions that can assist in addressing the declining quantities of late season flow in Carrols Creek and subsequently, in the Little Klickitat River.

The selected firm will demonstrate experience with novel, low tech, or low cost project implementation, be familiar with permitting meadows restoration projects and provide examples of practical approaches to address declining stream flow conditions, that can be monitored with shallow groundwater wells (to be installed) and existing stream flow gages.

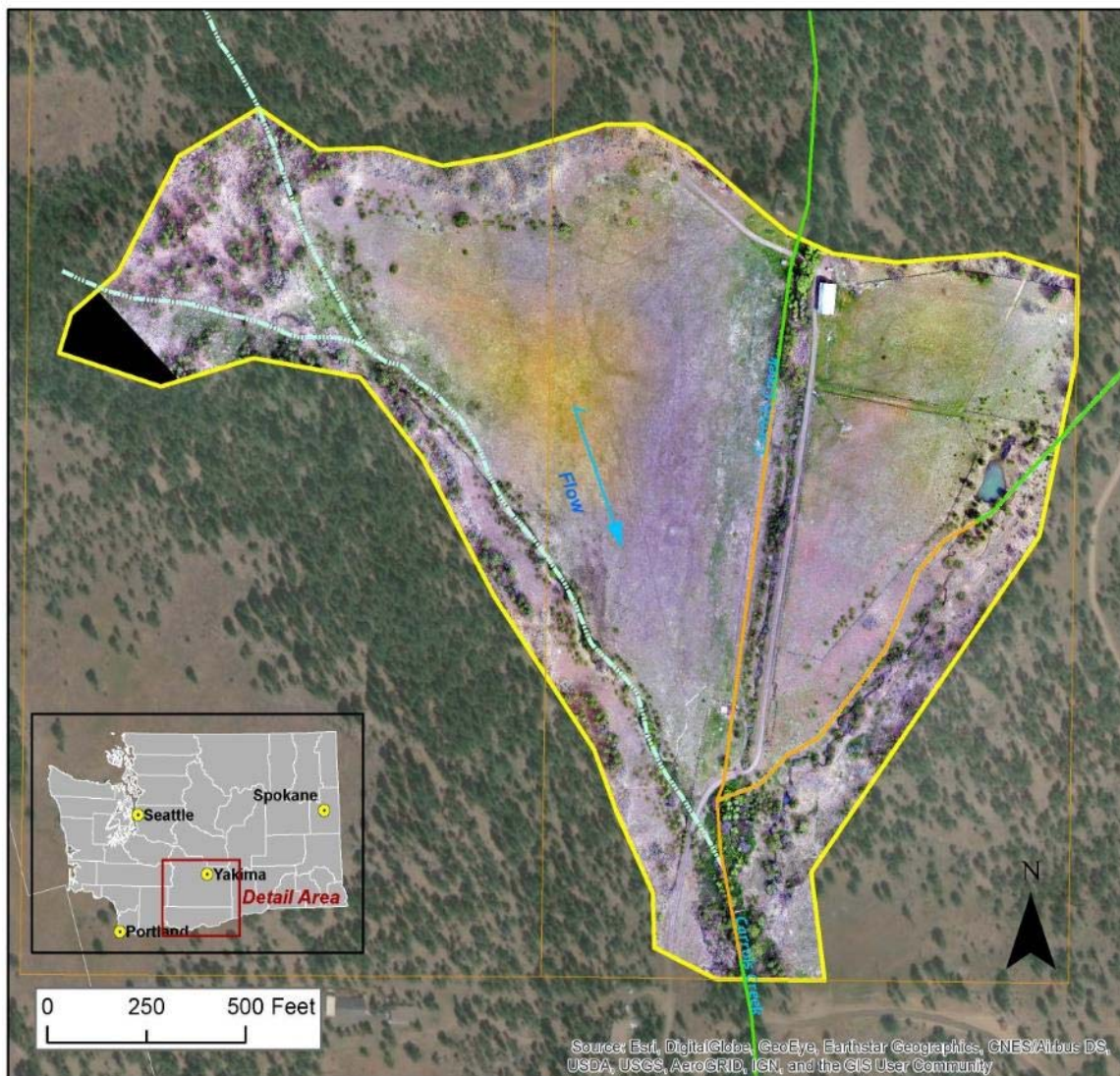
II - BACKGROUND

The project is located on private property known as Ser Cho Osel Ling (SCOL). Three creeks flow through the property, Carrols Creek (perennial) and two unnamed seasonal streams. These creeks are currently confined within artificial ditches that reduce seasonal flooding and inundation of the meadow. Historically, these creeks likely entered the meadow as unchannelized flow, infiltrating into soils in the meadow during winter and spring. Subsequent groundwater inputs via seepage or upwelling would have supplemented base flows in Carrols Creek during late summer and fall. Historic ditching and grazing have contributed to channel incision (2-3'). The current state of the streambank within an eroding channel and streambed erosion will likely require intervention (reamending, addition of wood, etc.) to regain access to the floodplain. Wet meadows were historically important sources of culturally important food and medicinal plants for the original inhabitants of the area, and now members of the Yakama Nation. Meadows and ditched streams similar to this one are fairly common in the general area. *Oncorhynchus mykiss* are present in the vicinity. There are anecdotal accounts of steelhead observed above the falls on the Little Klickitat River, located downstream at approximately at RM 6.2.

The Little Klickitat River watershed experiences temperatures that consistently exceed the Washington State freshwater standard of 17.5°C, and low stream flows have been reported since 1996. A number of riparian planting projects have been completed along the Little Klickitat River, though these efforts have not resolved the high summer water temperatures that exceed state standards. Additionally irrigators in the Little Klickitat have observed a decreasing ability to obtain the water quantities specified in their water rights. These conditions stress and impair listed salmonids.

An access road is shown in Figure 1, it parallels the creek from the south end of the meadow to the upper end of the meadow. The access road culvert near the junction of all three tributaries is occasionally seasonally inundated. Two other culverts located near the upper stream gage are also present. The access road is a constraint, given maintaining road access to the small house at the north end of the map and retreat center infrastructure to the north off the map is necessary, alternatives for reducing the influence of the road on the drainage pattern will also be pursued.

The landowner has a well near the northeastern flank of the meadow that currently provides domestic water, however there are occasional issues with the well that require maintenance and would need to be addressed for a fully reconnected meadow. Exploration of ground and surface water connectivity is a critical component of this project.



Carrols Creek Project Site

Beaver Suitability-Conservation and Restoration Model

— Low Hanging Fruit - Potential Restoration/Conservation Zone

— Unsuitable: Anthropogenically Limited

Streams

— Perennial Streams

— Intermittent Streams

— SCOL Landowner Parcels - 240 Ac

— Meadow Potential Area of Impact 30 Ac



Figure 1: An ortho image with Beaver Suitability Model Results (BRAT, Utah State University), Meadow and Carrols Creek Drainage at the Ser Cho Oso Ling (SCOL) Property in Goldendale, WA

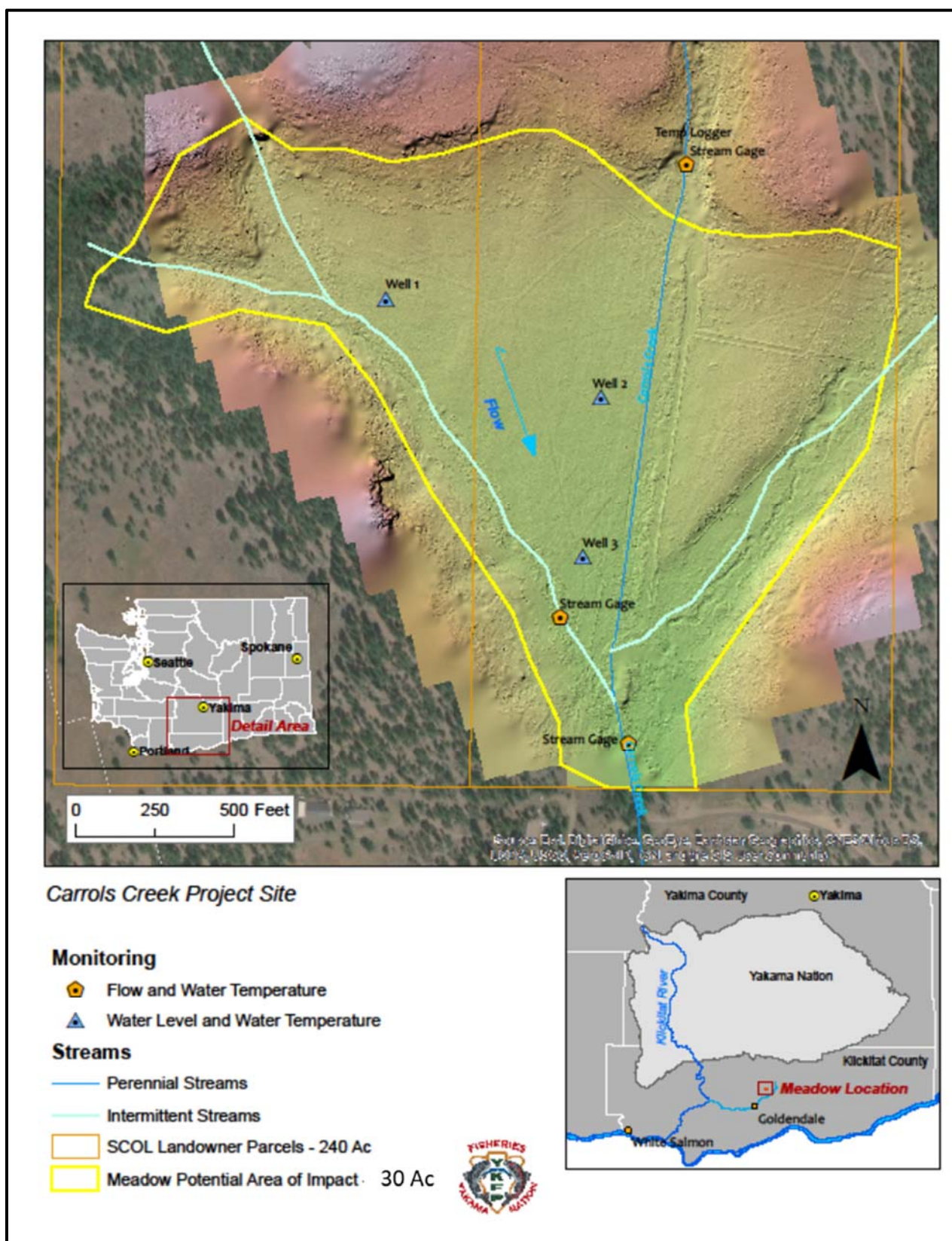




Figure 3: Temperature Logger and upstream gage (left) and downstream flow gage (right) on the perennial section of Carrols Creek collect continuous 15 minute stage and temperature data. The arrows indicate flow direction. Seametrics PT2x sensors are installed. Photos August, 2021



Figure 4. Right bank seasonal tributary. The channel was dry when photos were taken in Sept 2020.



Figure 5: Road Culvert in the center of the project area under access road. Flow shown moving from right to left. Culvert is 30" Diameter, channel is 24" wide.



Figure 6: View of access road culvert and seasonally inundated area



Figure 6. Aerial view of the meadow, looking south towards Goldendale, WA, in Fall 2019



Figure 7. Ground based view of the meadow looking north, in Spring 2019

III OBJECTIVE

The objective is to obtain permit ready designs for interventions that will result in conditions that are able to passively or with little maintenance recharge groundwater in an approximately 30-acre meadow and restore native meadow vegetation to assist in mitigating elevated water temperatures in the Little Klickitat River during the summer period. Restoring groundwater in the meadow is expected to positively affect water quality and quantity in Carrols Creek.

Additionally, because the meadow is on a single property with a willing landowner, this location provides an ideal site for restoring floodplain function, enhancing water storage potential of soils in the meadow, and improving water quality conditions in the Little Klickitat Watershed. The landowner is agreeable to the longer time-frame of a separate design phase, followed by implementation, which we are proposing and will actively continue pre-project implementation activities related to noxious weed management and native riparian plant regeneration. Carrols Creek is also currently listed as a fish bearing stream (Rainbow and Cutthroat Trout) so restoration activities are expected to have a positive effect on these populations in the area. Due to the locally novel approach being considered and the need for additional on-the-ground projects within the Little Klickitat River watershed, the project includes outreach and educational components to engage the broader community. Ideally a successful firm would assist in an onsite educational opportunity for professional practitioners or interested landowners.

Proposal should include the consulting engineering firm's:

- Consultant Team Structure
- Team/Personnel Qualifications and Experience
- Project Approach
- Past Performances/References
- Fee Schedule – Personnel Hourly Rates and Estimated Overall Project Cost

IV – SCOPE OF WORK

The cost estimate should reflect the following design components:

- A. Site Reconnaissance
 - a. Field observations
 - b. Geomorphic Assessment
 - c. Base Mapping
 - d. Historic context and applicability to other similar scenarios in the region

B. Hydrology & Hydraulics

- a. Hydrology – Ground Water Assessment
- b. Hydrology – Surface Water Assessment
- c. Shallow groundwater well layout/design/installation and assistance with the monitoring plan

C. Design Submittals

- a. Brief Design Report
 - i. Periodicity of species present
 - ii. Describe limiting factors and degraded condition
 - iii. Project objectives
- b. Alternatives Analysis
 - i. Develop and present approximately three conceptual design alternatives for the site ranging from passive to active restoration approaches
 - ii. Advance selected alternative to 30% design level
 - iii. Provide designs
- c. Refine designs to 60% or permit ready stage
 - i. Draft Cost Estimates
 - ii. Assist with USACE permitting and ESA Consultation requirements
 - iii. Assistance with response to initial USACE/ESA Feedback
- d. Assistance hosting or leading 1-2 educational workshops/demonstration tours for interested professionals and landowners with similar stream and meadow conditions

Yakama Nation will provide:

- Personnel to support site reconnaissance survey
- Project Management and Coordination
- Aerial photography
- LiDAR data as available
- Survey for fish presence
- Personnel to assist with on-site educational workshop/s

V – PROJECT GOALS

- 1) Develop design options for restoring wet meadow conditions that measurably increase late season flow from the meadow
- 2) Address constraints with road alignment and associated culverts in through project area
- 3) Conduct field reconnaissance, subsurface characterization monitoring and groundwater analyses leading to draft conceptual and alternative designs
- 4) Develop alternatives that represent low, moderate, and higher cost approaches to be able to inform evaluation of restoration alternatives that will have the greatest overall benefit per dollar and range from passive to active approaches
- 5) Assistance hosting an educational workshop for interested professionals and landowners with similar stream and meadow conditions

VI – TIMING AND DURATION

We expect to award this contract in October-November 2021 and receive final deliverables by May 15, 2023. Qualified Contractor Proposals shall be received via email no later than 5:00 P.M. Pacific Daylight Time on October 15, 2021. Bids may be emailed to: Adrienne Grimm at agrimm@ykfp.org.

Critical Dates:	
Site Visit – north of Goldendale, WA	September 29 th – 10:00 am
Question Submission Deadline	October 5 th – 5:00 pm
Submission Deadline:	October 15 th , 2021 - 5:00 pm
Tentative Award Selection:	October 22, 2021
Project Initiation (est):	Nov 5, 2021
Project Completion (est):	May 15, 2023

VII – MINIMUM QUALIFICATIONS

PROPOSAL SUBMITTAL CONTENT

To be considered responsive to this RFP, the Proposal shall include all items identified in Section IV by the deadline specified in Section VI.

PROPOSAL COVER AND COVER LETTER

Clearly label the Proposal cover and the subject line in the cover letter with “PROPOSAL for Yakama Nation Carrols Creek Analysis and Design.” The cover letter shall be limited to one page and shall identify the consultant name and contact person, their title, mailing address, email address, phone number, and the name of the proposed project manager.

CONSULTANT TEAM STRUCTURE

Provide the team structure, identifying any sub-consultants, including names of lead persons with titles and general project responsibilities, and the physical location of each lead person.

TEAM/PERSONNEL QUALIFICATIONS AND EXPERIENCE

The Proposal will be evaluated for the team and individual team member’s qualifications, general background, and experience in relation to the stated Scope of Work.

PROJECT APPROACH

The Proposal will be evaluated based on the approach and proposed solutions for increasing water holding potential of the meadow, reducing erosion in the perennial channel, addressing the culvert replacements and access constraints, monitoring change, making habitat improvements, and engaging other interested parties.

PAST PERFORMANCES/REFERENCES

References may be used to verify the accuracy of information provided in the Proposal. Provide three recent references who can be contacted concerning your firm's/team's RFP. In listing the references, include the name of the client, telephone number, e-mail address, contact person, and the specific work your firm did for the client. Also provide three recent references who may be contacted concerning the performance of your firm's/team's proposed project manager(s). The Yakama Nation reserves the right to contact references other than those submitted by the respondent.

FEE SCHEDULE

The Proposal will be evaluated on the costs associated with the design work. Please include:

- A. Hourly rate by position classification and estimated hours per task
- B. Charges for equipment, printing, or other costs
- C. Direct expenses (if applicable)

VI - SELECTION PROCESS & EVALUATION CRITERIA

Each contractor shall provide references and/or other information related to their proposal that demonstrates their past performance. The owner (Yakama Nation) shall evaluate the qualifications of bidders. The owner shall have the sole discretion and responsibility for choosing the responsive and responsible contractor.

Bids will be evaluated based on the following ranking criteria:

- A. Fee Schedule
- B. Relevant Firm Experience
- C. Project Approach
- D. Qualification of Assigned Staff
- E. References/Past Experience