

WESTERN NATIVE TROUT INITIATIVE

Application for WNTI Funding

Application Deadline: 5 pm Mountain time October 25, 2017

Application not to exceed 10 pages total (including the 3 page cover sheet)

Cover Sheet

Applicant Information

Lead Applicant Organization or Entity: Forest Service, Tonasket Ranger District
Contact Person Name: Gene Shull Address: 1 West Winesap
City, State, Zip: Tonasket, WA 98855 Email: gshull@fs.fed.us
Telephone: 509 996-4013 Website Address:

Project Information

Project Title: Aeneas Creek Fish Passage
Project Location State: Washington County: Okanogan Nearest Town:
Tonasket
Congressional District of Project: **District 4**
Watershed/Stream/Lake: **West Fork Sanpoil Watershed, Aeneas Creek**
WNTI Native Trout and Char Species/sub-species Benefitted by Project: **Interior Redband Trout**
Total Project Budget: \$ **85,000** Total Amount Requested: \$ **42,500**
Total Matching Funds or In-Kind Support: \$ **37,500**
Total Matching Funds or In-Kind Support *Secured*: \$ **5,000**
Project Map Coordinates (decimal degrees) #1 Lat: 48.5417 Long: -119.11239
#2 Lat: 48.56004 Long: -119.112908

Project Start Date: 5/2019 Project Completion Date: **11/2021**

Is there a monitoring plan following Partnership guidelines? Yes **No X**

If multiyear project, is there a breakdown of tasks, accomplishments, and budget by year in distinct phases? **Yes X** No

Land Ownership (public or private or Tribal; if public, specify managing agency): US Forest Service

If project is located on private land, please attach a letter of support from landowner (template below)

In which USFWS Region is the project located? (1, 2, 6, 7, 8) 1

Region 1: Idaho, Oregon, Washington Region 2: New Mexico, Arizona

Region 6: Montana, Colorado, Utah, Wyoming Region 7: Alaska

Region 8: California, Nevada

Is your project currently listed in the U.S. Fish and Wildlife FONS system? Yes / No

Please indicate FONS Project Number (if applicable):


Note: Many previously submitted, but unfunded projects have been placed in the Fishery Operational Needs System (FONS). Please check with your local U.S. Fish and Wildlife Service Office if you are unsure about the question.

Sponsoring Professional (state, federal, or tribal agency resource manager)

Name: Gene Shull

Title: District Fish Biologist

Affiliation: US Forest Service, Tonasket Ranger District

Signature (required): 

Mailing Address: 1 West Winesap, Tonasket, WA 98855

Phone: 509 996 4013

Email: gshull@fs.fed.us

WNTI Funds Requested: \$ 42,500

Total Matching Contributions (cash and in-kind): \$ 42,500

Match ratio (WNTI:Partners) 1 : 1

Total Project Cost: \$ 85,000

Partner Contribution Detail (List and briefly describe the project partners and their financial contributions.)

Partner	Cash	In-Kind
Confederated Tribes Of The Colville Reservation (verbal commitment to partner)	\$18,750, matching is pending	\$1,500, Matching is pending
Columbia Fisheries Enhancement Group (verbal commitment to partner)	\$18,750, matching is pending	\$1,500, Matching is pending
US Forest Service		\$5000
Budget Totals	XX matching is pending	Matching is pending

Note: NFHP funds granted to project applicants are processed through the U.S. Fish and Wildlife Service Regional Offices. These are federal funds, administered on WNTI's behalf through a federal agency. Grants are paid on a reimbursable basis. A project agreement will be completed with successful applicants through interactions with USFWS regional and/or local staff.

Project Narrative

Please use 12 pt. font, single line spacing, and standard margins. This portion of your application should not exceed 7 pages.

I. Project Summary - The Tonasket Ranger District (TRD), the Colville Confederated Tribes (CCT), and Cascade Columbia Fisheries Enhancement Group (CCFEG) are working to reduce the environmental impacts of roads within interior redband rainbow trout habitat on the West Fork Sanpoil Watershed in the Okanogan-Wenatchee National Forest. The watershed's 782 mile road system is identified as a principle anthropogenic threat that diminishes spawning and rearing habitat for interior redband trout. The USFS has identified a 7 of total fish passage barrier culverts in this system, and has undertaken a collaborative approach to address these issues and improve at-risk habitat. Barrier removal can improve the abundance, spatial distribution, and life history diversity of native trout directly, while also benefiting instream habitat conditions for the broader riparian ecosystem through restored natural processes, such as sediment and wood transport. This effort will build off and increase the benefit of recent fish passage work undertaken in partnership between the USFS and CCT.

II. Problem the Project Addresses – Livestock grazing, past timber harvest, and an extensive road system have altered natural watershed processes in the WF Sanpoil Watershed. Habitat conditions for interior redband trout are degraded through habitat fragmentation, unstable and eroding streambanks, widened channel dimensions, lack of streamside vegetation, high levels of fine sediment, low pool frequencies, and high channel instability. Many of these impairments are associated with the hydrological shifts that have occurred due to the coupling of the natural and road-related drainage systems. To move habitat conditions towards restoration, the existing road networks must be modified to remove migration barriers. This project would make progress in that direction by expanding fish passage and increasing hydraulic capacity at a stream crossing. This action will benefit riparian and fluvial processes that maintain redband trout habitat, with measurable results at the sub-watershed scale. Our proposal would both directly expand access by Interior Redband Trout to and between historic habitats and refugia, and indirectly benefit the species and habitat by addressing underlying sources of habitat degradation, chief among which is an extensive, poorly-planned road system.

Goals

Protect, restore and enhance western native trout populations and measure success in improving the status of western native trout.

Artificial barriers are a primary impact from roads that can substantially reduce a local population's viability. This project will improve fish passage and watershed connectivity for interior redband trout in the Aeneas Creek drainage (West Fork Sanpoil River Watershed) by replacing undersized and degraded culverts with Aquatic Organism Passage culverts. By replacing the proposed culvert, interior redband trout would have access to a total of about 1 mile of additional habitat. The replacement of project area culverts has already been analyzed for potential environmental effects and are considered "shovel ready" for construction. Two Aeneas Creek culverts were replaced in 2016 and this project would continue restoring fish passage in Aeneas Creek. The other five remaining barrier culverts on tributaries would be included in a future restoration effort. However, partners have the capacity to address multiple culverts whenever additional partnership money is secured.

Ensure protection and enhancement of intact watersheds, and enhancement or restoration of habitats that have been impacted by human activities or catastrophic natural events.

The WF Sanpoil Watershed has seen extensive land use over the last century. One of the greatest impacts to fish was the construction of the Grand Coulee and Chief Joseph Dams on the Columbia River. The Sanpoil River was one of the few rivers in this area that did not have a natural barrier and the Sanpoil was a stronghold for steelhead, now listed as threatened in the region. A century of logging, livestock grazing, private land

development and fire suppression has altered the landscape. This project would address a small, but important piece of the altered landscape for native trout. Restoring fish passage at barrier culverts is an effective way to build resiliency and improve fish production.

Develop collaborative approaches and partnerships among agencies and stakeholders that emphasize cooperation and shared effort, and increase funding to implement high-priority projects for the protection, restoration or enhancement of western native trout.

Through the partnerships between the US Forest Service, CCT, and CCFEG, this project is anticipated to continue a long-term relationship and build a new relationship where coordinated efforts help each partner achieve our common goals of protecting, restoring, and enhancing interior redband trout habitat and local populations. Building these relationships will be particularly critical in the future as project funding becomes increasingly dependent on cost-share type structures. Furthermore, the need to build resiliency becomes more important in the context of climate change and other factors.

This restoration project would meet following the NFHAP objectives:

Achieve measurable habitat conservation results through strategic actions of Fish Habitat Partnerships that improve ecological condition, restore natural processes, or prevent the decline of intact and healthy systems leading to better fish habitat conditions and increased fishing opportunities.

The Sanpoil is not an identified stronghold for interior redband trout (Thurow et al. 2007), but there is a strong desire to strengthen the local population across different state and federal agencies and local tribes. The criteria for being a redband trout stronghold, as classified by Thurow et al. (2007), includes sub-watersheds with the following redband trout conditions:

“(1) all major life histories that historically occurred within the watershed are present; (2) numbers are stable or increasing, and the local population is likely to be at half or more of its historical size or density; and (3) the population or metapopulation within the subwatershed, or within a larger region of which the subwatershed is a part, probably contains at least 5,000 individuals or 500 adults.”

Improving habitat conditions and expanding migratory access would increase survival and should improve fish production. This would move the population towards meeting the above criteria for classification as a stronghold with abundant, self-sustaining population numbers.

Aquatic species, particularly coldwater-sensitive fish, stand to be most impacted by climate change. Building more watershed resiliency will reduce impacts from anticipated changes. Restoring natural watershed processes within the WF Sanpoil watershed would lead towards more robust redband trout habitat conditions. Movement towards desired habitat conditions increases resiliency to climatic changes such as increased water temperatures, lowered baseflows, higher peakflows, and more frequent wildfires.

III. Project Objectives/Supporting Documentation – Our overall project goal is to restore aquatic habitat conditions connected to road-related impacts by improving aquatic organism passage in streams. We plan to restore fish passage at an existing barrier culvert. If more funding becomes available, we would address the 2nd culvert barrier lower down. Barrier culverts would be replaced with either bottomless arches or submerged squashed pipes, which would each provide natural stream bottoms for passage. Specific tasks include:

Restoring fish passage at the 3100285 road which would restore an additional 1 mile of spawning and rearing habitat. With sufficient funding to address the next culvert downstream, the project could restore 6 miles of

habitat. If we can attain enough \$\$ for the lower pipe, that would restore an additional ~6 miles of habitat collectively.

This restoration project is highly consistent with the following two WNTI Strategic Plan goals:

- Protect intact watersheds, and enhance or restore habitats that have been impacted by human activities or catastrophic natural events.

This project would restore some natural processes in a degraded western native trout watershed by replacing barrier culverts and enlarging the barrier pipes, which would reduce the risk for road failures. Water quality and sediment regimes would move closer to desired natural conditions from this project's efforts, thus benefitting Interior Redband Trout.

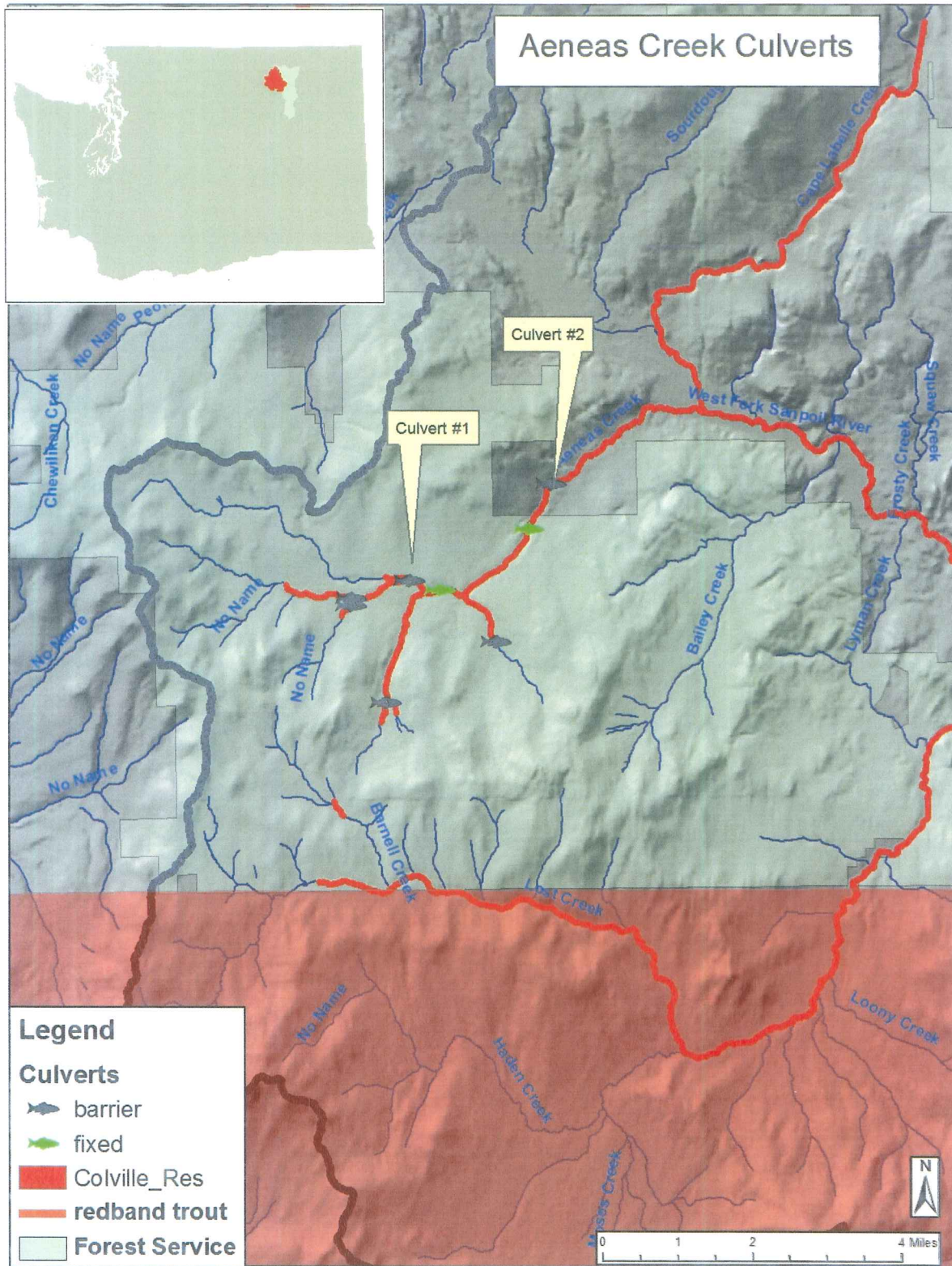
- Develop collaborative approaches and partnerships among agencies and stakeholders that emphasize cooperation and shared effort, and increase funding to implement high-priority projects for the protection, conservation and enhancement of western native trout.

Through the partnerships between the US Forest Service, CCT, and CCFEG, this project is anticipated to begin a long-term relationship of coordinated efforts for a common goal of protecting, restoring, and enhancing interior redband trout habitat and their local populations.

This project tiers to and is consistent with the Upper Sanpoil River & West Fork Sanpoil River Watershed Action Plan (WAP) (CCT and USDA 2012) and the CCT Strategic Restoration Plan (Johnson and Johnson 2012). Risks and threats in the Aeneas Creek drainage are identified in the WAP, which points primarily to the extensive road system as the primary source of degradation to aquatic habitat and fluvial processes. Similarly, the CCT Strategic Restoration Plan points to undersized/non-functioning culverts, road failures, and poorly designed and sited roads as the principal watershed restoration needed. Some of the highest road densities and numbers of stream crossings in the greater Sanpoil watershed are found in the Aeneas Creek drainage. This project fits into both strategies by improving ecological conditions through restoring fish passage and reducing the risk of road failures by upgrading one barrier culvert identified in the WAP and targeting riparian roads that contribute to degraded habitat conditions identified in the WAP. These indirect efforts would enhance a portion of degraded redband trout habitat, while fish passage improvements would directly increase the local population's productivity.

IV. Project Methodology – The proposed action is to replace a barrier culvert on FS Road 3100285 with Aquatic Organism Passage designs with natural stream bottoms, consistent with WDFW and Forest Service National Water Quality BMP design criteria for protection of fish life and water quality. Partnership funding is pending, but if additional partnership funding is secured sufficient to cover construction of a second culvert, this would be added to the project. For reference, the upper culvert, #1 on the map below, is the first target culvert due to its lower price. The lower one would be higher priority if adequate funding is available.

This project is currently planned for implementation in in 2020 or 2021 (and 2022 if more partnership funding is available and the second pipe is possible). Forest Service road engineers, in cooperation with CCT and CCFEG, would design and implement the project. Work would be done under contract with local private contractors.



V. Project Monitoring/Evaluation of Success - How will the success of the project be assessed, and who is responsible for long-term maintenance and monitoring? Has an evaluation/monitoring plan been completed? The benefit(s) should be quantifiable; that is, you can measure or count the amount of habitat and/or species benefited, or the result of your project.

No evaluation/monitoring plan has been completed, but the following implementation/effectiveness monitoring plan would be applied. The Forest Service would perform both implementation and effectiveness monitoring.

Implementation monitoring would entail project inspection during the implementation phases. Photo monitoring would document successful completion of all proposed road treatments, which would capture comparative conditions for pre, post and during treatment project phases. Best Management Practices monitoring would determine the effectiveness of mitigation measures in protecting water resources during project implementation.

Effectiveness monitoring focuses on evaluating whether the proposed project would achieve desired resource objectives. Changes to fine sediment levels would not be measured as changes may be immeasurable. Fish passage would be monitored through electrofishing above and below pipes to determine fish movement and use.

VI. Partnerships for this Project - Briefly describe the project partners' involvement in planning, implementation, and evaluation of this project. Projects that have secured matching funds or in-kind support from partners and/or involve diverse stakeholders are highly valued and encouraged.

The project has two partners: the CCT and CCFEG. The Colville Reservation is adjacent to the project area and they have a vested interest in the recovery of interior redband trout because it is a subsistence fishery. Forest Service and CCT fish biologists have participated in past field trips to look at road issues and worked together in prioritizing barrier removal. CCT is committed to redband trout recovery and wants to partner in restoring fish passage on barrier culverts in the Aeneas Creek drainage. CCT's contribution is pending, but we hope to get upwards of \$35,000 towards construction contracts. The CCFEG is a state appointed fisheries recovery group that works with local communities, volunteers, and land owners in support of Washington's native fish recovery efforts. CCFEG has not been involved in the planning process, but they have met with the Forest Service to discuss a funding/implementation strategy.

VII. Project Timeline - Please provide an estimated timeline for the project, including major milestones and achievements, including plans and responsible person to prepare and submit a final report with high quality digital photographs.

Year*	Milestone	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2019	TRD – Project design and contract preparation by project engineers for culvert #1.	X	X	X	X	X	X		
2020	TRD, CCT, and CCFEG –AOP barrier replacement				X	X	X	X	X
	** TRD - If partnership funding brings additional funding, project design and contract preparation by project engineers for culvert #2.	X	X	X	X	X	X	X	X
2021	**TRD, CCT, and CCFEG –AOP barrier replacement				X	X	X	X	X

*This is the planned schedule, but with a grant period of 5 years, this could be pushed back further.

**This second culvert work would be additional work if adequate partnership funding is available.

Gene Shull (Forest Service) would be responsible for preparation and submittal of the final report.

VIII. Supplemental Information

Status of Project Design and Environmental Compliance - No major design work has been completed other than some concepts identified. Implementation is expected to occur between July and November 2020, but may happen later with the 5-year grant period.

Forest hydraulic projects proceed in accordance with a FS-WDFW MOU. No HPA is required subject to agreement and communications between FS biologists and WDFW habitat biologists. Historically, we have an excellent working relationship with our WDFW partners and anticipate a letter of support from them for this project. Clean Water Act compliance will be maintained via the USFS Regional General Permit #8 and

following the Forest Service National Best Management Project designs, which stipulates design criteria and reporting requirements with the Army Corps and taking all reasonable measures to minimize short-term impacts. Our personnel are very familiar and experienced designing and implementing these types of projects for full compliance. Alternatively, if one of our partners were responsible for project design and implantation, a WDFW HPA would be required. CCFEG is very experienced attaining HPAs.

Species Present - Interior redband Trout – these species are present in the project area streams of Aeneas Creek and Lost Creek. Habitat conditions for redband are generally at risk and connectivity between streams is disrupted by partial barrier culverts. This project would remove some habitat perturbations and would restore some unobstructed fish passage.

Outreach/Education – There is no outreach or education planned with this project at this time.

IX. Budget

Treatment	Road #	Activity	Cost	Benefit
Aquatic Organism Passage	3000285	Design	\$10,000	2.2 miles of habitat above, 1.0 miles accessible from this pipe
		Construction	\$75,000	

Total Cost \$85,000

If more funding is attained through our partnerships, we would go for the lower, more expensive pipe.

Treatment	Road #	Activity	Cost	Benefit	Notes
Aquatic Organism Passage	3000000	Design	\$10,500	8.25 miles of habitat above, ~6 miles accessible from this pipe	Includes road detour for private residence access)
		Construction	\$150,000		

Total Cost \$160,500

X. Budget Narrative –

See Section VII.

XI. Project Staff - List

CCT Experience

Jason McLellan – Fish Biologist

CCFEG Experience

Kristen Kirby – Fish Biologist, Project Manager; MS Fisheries Science, 12 years of experience in fisheries work throughout the Pacific Northwest, 2 years of experience in project management in the Upper Columbia

Forest Service Experience

Shull, Gene -- Aquatics

Fisheries Biologist, BS Fisheries Science, 17 years' experience, Okanogan-Wenatchee National Forests, Methow Valley Ranger District

Dave McCormack -- Transportation/Engineering

Engineer Technician, 20 years-experience designing culverts, Okanogan-Wenatchee National Forests, Tonasket Ranger District

XII. Optional and Required Supporting Materials - Includes maps, photographs, other letters of support, etc. Project proposals must be supported by the state and/or federal fish and wildlife management/natural resource

agencies, or Tribal governments within project-area jurisdictions. Letters of support and landowner consent letters do not count toward the 10 page application limit. In addition to the required letter of support from the state fish and wildlife agency, and any additional letters of support from federal or Tribal fish and wildlife agencies, the project application cover sheet must include a signature and contact information for a 'sponsoring professional' from the relevant management agency.

XIII. Signature of Applicant - An original signature page must be received with the application.

I certify that the above information is true and accurate,

Signature: Gene Skull

Print Name: Gene Skull

Title: District Fish Biologist

Organization: Forest Service

Date: 10-25-17

Landowner Consent Template

I, MATT MARSH as [one of] the owner[s] of the property (street, location), agree to participate in the project being proposed and/or consent to the (restoration project, inspection, appraisal, and/or survey) of the property being considered for funding by the Western Native Trout Initiative. I agree to allow members of the (Blank Organization), NFHP Program representatives, and associated partners or their designated staff to inspect the property at any mutually agreeable time for the purposes of this proposal. I understand I shall be notified in advance of all inspection visits. I also understand that the project being proposed may not happen if the application does not meet the needs or qualifications of the National Fish Habitat Plan and is subject to availability of funds and ranking priority.

Dated: 10/25/17 By: [Signature]

Acting District Ranger
Tonasket Ranger District