

APPLICATION FOR FUNDING FOR COMMUNITY-BASED HABITAT RESTORATION PROJECTS

Title Page

Applicant Information

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Project Contact

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Project Description

Project Title: Little Wind River Community Habitat Restoration
Project Location (State, County, Watershed): WA, Skamania County, Wind River Watershed
Latitude & Longitude: 45.727732 & -121.791546
USDA FS Road Number and Mile Post (if applicable): Confluence of Little Wind River and Wind River
Project Start and End Dates: January 2010 – December 2011
Type of Project: Aquatic Habitat and Floodplain Restoration
Total Funds Requested: \$89,293

Narrative Questions

A. Goals and Objectives (10 points)

1. Describe the project's short-term goals and measurable objectives.

The project's short term goals are to: (1) restore confluence seasonal access (2) increase habitat complexity and abundance; (3) reconnect channel to historic floodplain and reactivate relic side, off and ground water fed channels (4) increase juvenile rearing habitat (5) increase over winter velocity refuge (6) increase large wood abundance and (7) increase percentage of conifers in total riparian species composition to restore habitat forming processes for adult holding, spawning, fry colonization and juvenile rearing of threatened Lower

Columbia River Steelhead, Coho and Fall Chinook. Measurable objectives will include: (1) increase in thalweg depth at confluence; (2) increase in total reach meander; (3) increase in active side channel length and average depth; (4) increase in average and max pool depths; (5) increase in large wood abundance (6) increase in abundance of conifers within 100 feet of ordinary high water mark.

2. Describe the project's long-term anticipated outcomes (ten years after completion), likelihood of long-term success, and degree to which the restoration will be self-sustaining.

The projects long-term anticipated outcomes include an increase in abundance of adult and juvenile Steelhead, Coho and Fall Chinook habitat usage and productivity in the Little Wind River. Fully vetted restoration techniques will be designed and built to withstand the peak flow discharges and remain in existence and functionality ten to thirty years. The likelihood for long-term success of this project is high. The landowner, Dan Gundersen, has a long history working with Underwood Conservation District to implement conservation practices on his property and has pledged to remain open to continued work and maintenance as needed.

B. Geographic Focus (15 points)

1. Which priority basin is the project located in? Please check one. (10 points)
 Lower Columbia (Hood River downstream)
2. Is the project located in a focus watershed? If yes, please specify which watershed from the list provided in the RFP. (5 points)

Yes, the project is located in the Wind River Watershed which is listed as a priority in the RFP.

C. Benefits and Project Justification (20 points)

1. Was the project identified in watershed-scale analysis, and/or does the project respond to documented limiting factors from an established salmon recovery or restoration action plan? If yes, describe the relative importance of the project within the action plan, how implementing the project contributes to completion of all actions identified in the plan.

Yes, the project is identified or responds to limiting factors in the following established salmon recovery or restoration action plans: the "Wind River Watershed Analysis" (USFS 1996, 2002); the "Salmon and Steelhead Habitat Limiting Factors in WRIA 29" (WA Conservation Commission 1999); the Wind River chapter of the "Lower Columbia Salmon Recovery And Fish & Wildlife Subbasin Plan" (Lower Columbia Fish Recovery Board 2004) and the "2009 Six-Year Habitat Work Schedule" (Lower Columbia Fish Recovery Board 2009).

In 1998, the National Marine Fisheries Service listed the steelhead of the lower Columbia river as "threatened" under the Endangered Species Act. In 1997, the Washington Department of Fish and Wildlife rated the status of the Wind River steelhead as critical. Due to the status of this stock, the Wind River steelhead have the highest priority for recovery/restoration in the state of Washington's Lower Columbia Steelhead Conservation Initiative.

The 2009 Six Year Habitat Work Schedule is perhaps the most comprehensive and up-to-date encapsulation of analysis and planning efforts covering the Wind River. The Work Schedule designates the Little Wind as a 'Moderately Impaired Tier 1 Reach' in the watershed with a 'High' potential for multi-species project benefits for Winter Steelhead and Coho in the following categories: Stream channel habitat structure and bank stability; Off channel & side channel habitat; Floodplain function and channel migration processes; Riparian conditions & functions; Water quality and Instream flows. Results of the Ecosystem Diagnosis and Treatment (EDT) modeling conducted in the Wind River Watershed indicate the level of relative impact that restoration and protection strategies would have on habitat factors in specific reaches. For the Little Wind, EDT modeling indicates that restoration/protection of "Key Habitat Diversity" would have a "High" impact on the relative degree to which overall population abundance of Winter Steelhead and Coho would be affected if the habitat attributes were restored to template conditions. Furthermore, the Wind River watershed is broken into 61

reaches and each reach is given a priority tier ranking. Tier 1 reaches are considered the highest priority while Tier 4 reaches are considered the lowest priority. Of the 61 reaches, only eight (13%) have been designated Tier 1 reaches. The Little Wind 1 (RM 0.0 – 3.0) is considered a Tier 1 reach.

2. Describe how the proposed techniques will achieve the project goals and objectives.

Underwood Conservation District is proposing to utilize project funding to design and implement a suite of techniques that will serve to restore processes that are currently limiting the recovery of salmon and steelhead in the Little Wind. See Appendices A-E for an aerial photo and schematics of the following. At the mouth of the Little Wind, critically engineered log jams and large boulders will serve to increase pool depth and thalweg channel scour, thus increasing year round access and holding habitat for adult and juvenile salmon and steelhead. As you continue upstream from the mouth, engineered log jams will serve to aggrade alluvium at key hydraulic control sites, thus reconnecting the flowing channel to its historic floodplain-side channel complex. This important restoration technique will serve to reduce winter high velocity stream energy, thus allowing for increased deposition of critical alluvial sediments while providing velocity and turbidity refuge for juvenile Coho, Steelhead and Chinook. Floodplain reconnection and relic side channel reactivation will increase total available habitat as well as habitat complexity. At other critical sites, channel spanning structures composed of large wood and rock will serve to increase available spawning habitat for Coho. In addition, work will be done to restore the streams riparian buffer from an alder dominated to a conifer dominated ecosystem. This shift will be directed by intensive planting and browse protection of Western Red Cedar which will one day serve as a source for future instream large wood.

3. Complete the benefit table below.

Benefit	Estimated Amount
Stream Miles Improved/Opened	0.5 miles
Acres Improved (Riparian, lake, wetland or upland)	12.2 acres (based on 100 ft riparian buffer)
Miles of Road Decommissioned or Improved	0.5 miles
Number of Species Benefited Directly (List target species)	3 species (Coho, Winter Steelhead & Fall Chinook)
Community Members Involved/Reached	75
Other	

4. Describe potential benefits associated with the project not quantified in the benefit table. Include any short and long term economic and socio-economic benefits, such as the number and dollar value of local contract jobs awarded or increase in tourism potential.

The potential socio-economic benefits of this work include approximately \$142,820 in local service and construction contract awards as well as education and outreach opportunities for students attending Wind River Middle School and high-school age participants in Skamania County’s Forest Youth Success Program. In addition, landowner Dan Gundersen is currently planning to develop a small scale ecolodge which will be located on the property. This is expected to have no significant negative impact on the riparian or aquatic ecosystem but will provide a unique educational opportunity for ecotourists traveling to Skamania County.

5. Describe how the project specifically benefits Pacific salmon and steelhead.

This project will specifically benefit Steelhead, Coho and Fall Chinook salmon in a number of ways. To begin, enhancements in this reach will serve to restore confluence seasonal access which has been altered by past management activities. In addition, habitat forming natural structures will serve to increase habitat complexity

and provide enhanced cover for multiple life stages of steelhead and salmon. Increases in pool depth and size of off channel habitat have been directly correlated to increases in juvenile Coho abundance which would serve to increase the capacity of this threatened species' ability to recovery in the Wind River.

D. Diversity of Partnership (10 points)

1. List all significant project partners and describe briefly their contribution—financial, project implementation, outreach or other contribution. Include indication of landowner concurrence.
 - *Daniel Gundersen – Landowner who has indicated ability to contribute large wood and rock to the project (please see Appendix F).*
 - *Cheri Anderson, U.S. Fish and Wildlife Service – Cheri is the Information & Education Coordinator for three area fish hatcheries, and is a longstanding partner with UCD. She has indicated ability to contribute her time to bring Wind River Middle School students to the project site to learn about aquatic and riparian ecosystems and the work that is done to restore them (see Appendix G).*
 - *Ian Jezorek, Fish Biologist, USGS Columbia River Research Laboratory – The USGS Col. River. Research Laboratory has contributed to our understanding of juvenile fish populations in the Little Wind and will continue to be a valuable partner for future work (see Appendix H).*
 - *Mark Kreiter, USFS Columbia River Gorge National Scenic Area (CRGNSA) – Hydrologist who has informed us that we can utilize 80-100 trees and logs belonging to the CRGNSA for our project. He has also indicated an ability to contribute technical support (see Appendix I).*
 - *Mary Todd Haight, Bonneville Power Administration Division of Fish and Wildlife – UCD is under contract with BPA to conduct fish habitat work in the Wind River. Mary Todd, Project Manager, has shown support to fund habitat projects under current and future contracts (see Appendix J).*
 - *Brian Bair, Bair LLC – Fish biologist and consultant who has worked closely with Underwood Conservation District to develop a watershed level approach as well as list of specific actions and conceptual designs for the restoration of salmon and steelhead habitat in the Little Wind watershed.*
 - *Bryce Glaser, Fish Biologist WDFW – Partner on our current BPA contract, and contributes greatly to our current understanding of adult spawning fish populations in the Little Wind and greater Wind River and will continue to be a valuable partner in future work.*
 - *Skamania County's WSU Forest Youth Success Program – This program educates and employs local high school students in watershed-related activities. UCD has partnered with this crew many times in the past and plans to partner again for several components of this proposed project.*
 - *Northwest Service Academy (NWSA) – UCD has utilized NWSA's Americorps Program for several years to hire an Intern. This Intern will work with UCD staff to conduct project tasks such as: helping to survey the project site, planning access routes for equipment, creating maps, and project monitoring.*

E. Readiness (10 points)

1. Describe the on-the-ground activities you intend to complete to meet your goals and objectives.

On the ground activities will include installation of habitat-forming natural material instream structures (large wood, boulders and gravel), improvement of secondary channel habitats, enhancement of riparian habitats as well as road maintenance (as necessary). Installation of habitat forming natural materials as well as improvement of secondary channel habitats will be guided by engineered plans based upon topographic surveys as well as analysis of critical hydraulic and fluvial-geomorphological processes and modeling.

2. Describe steps already taken to prepare the project for implementation and provide estimated start and completion dates for on-the-ground activities.

Underwood Conservation District collected and compiled stream habitat data from several sources to create the document entitled "Little Wind River Habitat Data Compilation" (Underwood CD 2008 – see Appendix K) which is based upon USFS Stream Survey Data from 1983, 1992 and 2007 as well as USGS biological sampling data from 2005 and 2006. In 2009 Underwood Conservation District hired Bair LLC, an independent

consulting firm, to establish a set of conceptual designs for habitat restoration actions in the Little Wind (Bair LLC 2009 – see Appendices B-E). If funded, these conceptual designs will feed the design process.

3. Identify permits expected to be necessary for the project and describe the current status of applications or consultations.

Underwood Conservation District will work cooperatively with Bonneville Power Administration's Habitat Improvement Program and NOAA National Marine Fisheries Service to complete an Endangered Species Act Section 7 Formal Programmatic Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation. In addition we will be working cooperatively with BPA's Environmental Compliance to ensure full completion of all necessary NEPA documentation.

In addition to NEPA, Underwood Conservation District will work with the WA Dept. of Ecology to acquire a Water Quality Certification (Section 401); the WA Dept. of Fish and Wildlife to acquire a Hydraulic Project Approval (HPA) and Fish Enhancement Project Status; the US Army COE to acquire a Dredge/Fill Permit (Section 10/404); Skamania County to acquire a shoreline permit or exemption; BPA for archaeological approvals required by the National Historic Preservation Act and WA State Historic Preservation Office's EO 05-05 review; and the Columbia River Gorge National Scenic Area for Consistency Review. None of the above mentioned permits applications have been completed or submitted but will be done pending project funding allocation.

F. Experience (5 points)

1. Identify proposed project staff. Include details of staff experience, qualifications, and ability to complete the project as proposed.

Underwood Conservation District has a long history working with the landowner Dan Gundersen and all other project partners on a variety of natural resource conservation projects. Most recently, Underwood Conservation District staff compiled habitat data on the Little Wind River and hired a private contractor, Bair LLC, to create a list of recommended habitat actions to address site specific limiting factors within the Little Wind Basin. Bair LLC has been instrumental in developing on-site conceptual design elements for habitat restoration activities that will be further developed and constructed with funds provided by this grant.

Underwood Conservation District staff, including Tova Cochrane (District Manager), Jamie Gomez (Watershed Resource Technician), Adrienne Zuckerman (Watershed Resource Technician), Jim White (part-time Project Technician and District Forester), and Ann Gross (District Financial Manager) will be working on this project. The Manager, Tova Cochrane, has a BA degree in Politics and Environmental Studies and nine years of work experience in community environmental education and natural resource management. She has a certification in Conservation Planning and also has a certification in River Restoration from Portland State University. Watershed Resource Technician, Jamie Gomez, has a BS degree in Environmental Biology and has nine years of work experience in environmental science and management. Our other Watershed Resource Technician, Adrienne Zuckerman, has a BA in Environmental Studies and International Relations and has worked in the field of natural resources for seven years. The part-time Project Technician and District Forester, Jim White, holds a BSF in Forestry, a BS in Wildlife Management, and a MS in Forestry, and has 38 years of work experience in forestry and other natural resources. The Financial Manager, Ann Gross, has been successfully managing district finances for twelve years with clean audits. To develop the Final Project Designs, Underwood Conservation District will hire a subcontracting design firm. Project construction will also be put out for public bid, and the lowest, responsible bidder will be chosen to do the work.

2. List similar projects completed by your organization and describe the status or results of the projects.

Underwood Conservation District (UCD) has been actively involved in salmon conservation/restoration work for 13 years. For the entire 69 years of our existence, UCD has been involved in soil, water, and wildlife habitat conservation work with private landowners. A large part of the Conservation District's mission has been the implementation of conservation practices that improve or protect fish and wildlife habitat. Underwood

Conservation District has a strong history of success in managing the design and implementation of watershed restoration and fish passage improvement projects for the benefit of salmonids and natural resource conservation. Underwood Conservation District has been an instrumental partner in conducting fish habitat work in the Wind River Watershed, including the Stabler Bend Restoration Project (1998-99) and Upper Trout Creek Restoration Project (2003 – 2008). UCD has also sponsored the following projects:

- *Zeigler Culvert Fish Passage Project (2006 – 2007) – This project was funded by the Family Forest Fish Passage Program to remove a fish barrier culvert on an unnamed tributary to the Washougal River and replace it with a channel spanning bridge that allowed fish passage, natural stream bottom meander and sediment transport. The project was successfully implemented.*
- *Schmid Bank Stabilization Project on the White Salmon River (2005 - 2007) – This project installed rootwads and woody debris along 500 feet of streambank in order to stabilize the erosive soils, establish vegetation, provide fish habitat, and protect a nearby manure lagoon from breaching. The landowner is Whitewater Holsteins Dairy, a local organic dairy. The project was successfully implemented.*
- *Reynold's Bridge - Stoller Creek Fish Passage Project (2007 – 2008) – This project was funded by the Family Forest Fish Passage Program to remove a fish barrier culvert on a tributary to the White Salmon River and replace it with a channel spanning bridge that allowed fish passage, natural stream bottom meander and sediment transport. The project was successfully implemented.*
- *Middle Wind River Riparian Enhancement Project (2001-2009) – This project entailed the design and construction of 18 woody debris structures which were placed along 1 mile of eroding banks of the mainstem Wind River. The project was successfully implemented, and project monitoring is ongoing.*
- *Anderson/Pearson Trout Lake Creek Bank Stabilization Project – (2009) – This project installed rootwads and woody debris along 200 feet of streambank in order to stabilize the erosive soils, establish vegetation, and provide fish habitat. The project was successfully implemented and project monitoring is ongoing.*

G. Monitoring (10 points)

1. Detail your project monitoring plan and describe how it supports your stated goals and objectives. A project report that includes before and after photos of the project site is required.

If funded, a full project monitoring plan will be written in coordination with project partners based upon NOAA's Restoration Monitoring Planner as directed by the Estuary Restoration Act of 2000. The project monitoring plan will include at least one structural and one functional parameter and will be directly linked to project goals and objectives. Reference, baseline and target objectives will be identified for each parameter included in the monitoring plan. Data from previous stream surveys conducted by USFS and WDFW will be considered when establishing parameter metrics and specific methodologies. In addition, project photos will be taken both opportunistically and using established photopoints to document changes and project accomplishments.

H. Community Outreach (10 points)

1. List volunteer opportunities, education/outreach/stewardship plans, and other opportunities for community involvement created by the project.

Opportunities for community involvement created by the project will primarily target local middle and high school students who are instrumental in transferring information to their parents and other community members. Underwood Conservation District has been involved in outreach and education efforts with the Wind River Middle School Outdoor Education Class for over eight years in coordination with USFWS and USACE (Bonneville Dam) and USFS staff. This project proposes to engage the Wind River Middle School Outdoor Education Class (7th and 8th graders) through water quality activity-based field trips as part of a larger education program that includes in-class presentations on watershed processes, scientific inquiry and data collection activities and presentations on findings to parents and the community at large. Students will participate in water quality monitoring and planting activities at the project site.

High school students will be involved in work at the project site through Skamania County's summer time WSU Forest Youth Success program. As part of a larger education program on forest ecosystems and processes,

young adults from the surrounding community will take part in approximately four days of project monitoring, riparian planting maintenance, and work to help reduce blackberry encroachment into the project area. Two crews of approximately eight people will participate. The project area will serve as an ideal education site for lessons on watershed health and salmon life cycle processes.

2. Describe how the project will benefit the surrounding community.

UCD has facilitated the Wind River Watershed Council since 1998. This Council provides a public venue to discuss watershed wide issues, opportunities and efforts and provides a place for the community to learn about and become involved in work in the watershed. The Council has identified habitat enhancement in the Little Wind River on their Watershed Enhancement Project list.

Dan Gundersen is the private landowner at this reach and is also an involved community leader. He currently serves as the chair of the Wind River Watershed Council and has participated in the council for over ten years. UCD has provided a variety of technical assistance to Mr. Gundersen. He has completed a Forest Stewardship Plan for his property and he plans to build an eco-retreat at the confluence of the Little Wind and the mainstem Wind River in the future. He is very interested in including a naturalist component in the experience of his future customers, and this may likely serve as a perfect audience to exhibit the future restoration work in the Little Wind River. Mr. Gundersen's willing participation in this project will undoubtedly bring more attention to watershed work and the overall significance of salmon and steelhead ecosystem services.

I. Budget Justification (10 points)

1. Provide a budget narrative which lists and describes expected expense items for which you are requesting funds. Please specify all salary/labor expenses as Federal or non-Federal staff. See example below.

Materials & Service Contract for Materials Acquisition & Delivery: We have identified logs and rocks that will be donated for the project from the landowner and the CRGNSA. These donations total \$21,094, but we must hire a contractor to extract, load, and deliver these materials to the project site. For this we request \$14,155.

Construction Contract: We request \$19,665 for an excavator, operator, mobile yarder, laborer/sawyer/choke setter, erosion control management, and mobilization.

Service Contract for Construction Oversight: We request \$18,000 for a contractor, likely the design engineering firm, to spend 28 hours (at a rate of \$118/hr) to assist with contract preparation & and development, as well as 18 days (at a rate of \$756/day) to assist with Construction Oversight & Inspection to ensure the work is done to the standards and specifications designed.

Labor/Salary: We request funding for permit acquisition, Construction Contract Development and Management, Project Monitoring and Community Education & Outreach, totaling: \$28,318. This work will be accomplished by UCD employees: Tova Cochrane, District Manager (comp. rate of \$27.66/hr), Jamie Gomez, Resource Technician (comp. rate of \$21.56/hr), Adrienne Zuckerman, Resource Technician (comp. rate of \$20.94/hr), and Ann Gross, our Financial Manager (comp. rate of \$28.07/hr).

In addition, we request \$500 in project monitoring materials, including temperature meter and camera batteries and materials for photodocumentation stations on site. We request \$150 for a permit fee required by Skamania County Planning Department for the Columbia River Gorge National Scenic Area Consistency Review. We also request \$1426 for travel costs, estimating approximately 72, 36-mile trips to the project site and back (at a state mileage rate of \$0.55/mile) for the purposes of assisting with surveying, design, permitting, materials acquisition, construction, monitoring, and educational activities. We are requesting \$7079 for operating costs related to this project, such as office supplies, paper, copies, printing, bid package advertising, etc.

2. Complete the budget table below and include expenses and revenue sources for the entire project, including match. Add rows as needed.

- **Match* and *Contributions* indicate the amount of funding or value of in-kind support you have or expect to receive from a federal or non-federal partner.
- ***Under both Source* columns, please indicate with either an *S* or a *P* whether your matching funds are *Secured* or *Pending*.

Expense Item	Funds Requested	Non-Federal *Match		Other *Contributions		Total Project "Value"
		Amount	**Source	Amount	**Source	
Employee Salaries: Survey, Design & Engineering Contract Development & Management	\$0	\$11,527	BPA (P)			\$11,527
Employee Salaries: Permit Acquisition	\$7,293	\$5,634	BPA (P)			\$12,927
Employee Salaries: Construction Contract Development & Management	\$11,157	\$11,157	BPA (P)			\$22,315
Employee Salaries: Project Monitoring	\$5,654	\$5,654	BPA(P) & UCD (S)			\$11,308
Employee Salaries: Community Education & Outreach	\$4,213	\$1,403	UCD (S)			\$5,616
Other Labor: Community Education & Outreach	\$0	\$2,402	Skamania County (P)	\$2,040	USFWS (S)	\$4,442
Service Contract: Survey, Design & Engineering	\$0	\$54,680	BPA (P)			\$54,680
Service Contract: Permit Acquisition	\$0	\$6,000	BPA (P)			\$6,000
Service Contract: Materials Acquisition & Delivery	\$14,155	\$14,808	BPA (P)			\$28,963
Service Contract: Contract Management and Construction Oversight	\$18,000					\$18,000
Construction Contract: Instream Habitat Enhancement	\$19,665	\$13,110	BPA (P)			\$32,775
Other Materials & Equipment: Instream Habitat Enhancement	\$0	\$6,094	Landowner (S)	\$15,000	CRGNSA (S)	\$21,094
Other Materials & Equipment: Project Monitoring	\$500	\$1,455	UCD (S)	\$1,000	NWSA (S)	\$2,955
Other Materials & Equipment: Community Education & Outreach	\$0	\$400	Skamania County (P)	\$500	USFWS (S)	\$900
Other: Permit Fee	\$150					\$150
Travel	\$1,426	\$1,109	BPA (P)			\$2,534
Operating Costs	\$7,079	\$8,844	BPA (P)			\$15,923
Total Funds	\$89,293	\$144,276		\$18,540		\$252,109

* May include funding needed to pay for planning/design/permit application services, if needed.