

Secure Rural Schools and Community Self-Determination Act of 2000
Public Law 106-393

Title II Project Application for 2007 Funds (Round #7)
Roseburg District Resource Advisory Committee

1. Project Name: Lees Creek Habitat Improvement	2. County: Douglas
3. Sponsoring Organization: Elk Creek WSC	4. Date: 4 August 2007
5. Sponsor's Phone Number: (541) 836-7206	
6. Sponsor's E-mail: Russell.leland@gmail.com	

7. Project Location (attach project area map)	
a. Description of Location: Umpqua Basin (See attached map for more details)	
b. Sub Basin Name (4 th Field Watershed; e.g. North Umpqua): Main Umpqua	
c. Watershed Name (5 th Field Watershed; e.g. Little River): Elk Creek Basin	
d. Legal Location: Township 22S Range 4W Section(s) 9, 10, 17	
e. BLM District: Roseburg	e. BLM Resource Area Swiftwater
f. State / Private / Other lands involved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

<p>8. Project Goals and Objectives: (Describe the goals and objectives of the project. If applicable list species that will benefit from the project)</p> <p>The Lees Creek Habitat Improvement Project will improve fish passage and habitat in more than two miles of private and BLM-managed land on Lees Creek in the Elk Creek watershed.</p> <p>The Elk Creek watershed is an important spawning and rearing habitat for Coho salmon, as well as Steelhead and Cutthroat Trout. It was designated a Tier 1 Key Watershed by the Roseburg District BLM in the Northwest Forest Plan (1994), and was ranked number one by the Umpqua Basin Watershed Council when it prioritized the sub-watersheds of the Umpqua system using the Bradbury Process (1998). Virtually <i>all</i> the streams in the watershed have been designated as "Essential Fish Habitat" under the Magnuson-Stevens Act; <i>most</i> have been characterized as having "high intrinsic potential" by ODFW.</p> <p>Past land use practices have degraded much of the habitat in the watershed, especially in the lower gradient reaches which contain the majority of the prime Coho habitat. Incised channels are widespread. Many have been reduced to bedrock by splash dams, by channel straightening, and by "stream cleaning," a required forest practice in the 1960s and '70s, which removed most of the large woody debris from the channel.</p> <p>"Large Woody Debris is extremely important in low gradient streams that contain an abundant source of fine sediment. Log Jams, and to a lesser extent, individual pieces of large wood, act as a source of roughness that traps sediment and helps to moderate</p>

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its progression down a given stream channel. In streams with extremely high sediment loads, the few areas of quality spawning gravel are often only found in association with these wood formations. It is assumed that previous stream clean-out efforts removed the LWD from almost all stream channels in the Elk Creek WAU. (Roseburg District BLM, October 1996. East Elk Watershed Assessment Unit)

"In most cases in the East Elk WAU, lack of LWD and excessive sediment seem to be the limiting factors. The lack of LWD exacerbates the potential problem of increased peak flows. The LWD creates slack water refuge areas during high winter flows. A lack of LWD causes the juvenile fish to be more susceptible to high water." (Roseburg BLM, 1996)

Fish passage barriers are a significant limiting factor in the Elk Creek Watershed. All watershed analyses have identified this as a problem. The Elk Creek Watershed Council, in cooperation with the Douglas SWCD, has started an inventory of culverts on the private lands in the Elk Creek Watershed. The Council is contacting local landowners to get permission to access their lands for data collection. This project should be completed in 2008.

In 2006, the Elk Creek Watershed Council invited a group of fisheries biologists and restoration specialists from various natural resource agencies including BLM and ODFW to participate in a discussion of watershed assessment and limiting factors in the Elk Creek Watershed. (Elk Creek Limiting Factors Forum). The conclusion from this meeting was that the primary factors limiting salmonid populations in the basin were:

1. Lack of large wood in the streams (stream complexity). Removal of large wood has increased water velocities and led to increased erosion and channel incision, and disconnection from the floodplain. Large wood slows water velocities and creates high quality rearing habitat for juveniles. Increased water velocities have also scoured out sand and gravels which can hold water and thereby help increase summer flows and lower summer water temperatures.
2. Lack of suitable over-wintering habitat for juvenile Coho. In channels already incised and cut off from the floodplain, increased water velocities during high winter flows literally wash juvenile fish out of the system.
3. Blockage of fish passage by undersized or improperly placed culverts.

Lees Creek is typical of many Coho streams in the Elk Creek Watershed. Logging in the riparian area, and stream cleaning, have eliminated most of the large wood which is essential for providing complex habitat for juvenile Coho, and for providing "roughness"

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to reduce water velocities and erosion. Grazing the riparian area has contributed to further erosion by damaging the trees and shrubs which protect and stabilize the streambanks. In spite of these problems, the landowner reports that large numbers of Coho spawn in the gravel bars of Lees Creek every year. This project will improve both summer and winter habitat, and help improve the survival of Coho in this area.

The project area begins on private lands at the confluence of Lees Creek and Curtis Creek, and extends into BLM lands farther upstream. ODFW Aquatic Inventories show this area to be low in both pieces of large wood, and cubic meters, per 100m of stream (1995). The proposed project will place large wood "log jams" and random boulder clusters at selected sites along more than two (2) miles of Lees Creek. Sites will be selected that will allow slowing water to overflow onto the creek's historical floodplain, an important over-winter habitat for juvenile Coho seeking refuge from the high flows of winter storms.

Approximately $\frac{1}{2}$ mile from the mouth of the creek, there is an access road that crosses the creek. The creek is channeled through two (2) undersized culverts that are blocking passage of juvenile fish, and are on the verge of failing and discharging large amounts of sediment into the creek. These undersized culverts have created increased water velocities downstream, and the streambed has eroded down to bedrock.

This project will replace these failing culverts with a railroad car bridge. The crossing will be designed to pass a one hundred-year flow, and will restore the creek's natural bottom and active channel width so that it will be passable by all aquatic species, especially adult and juvenile Coho.

The section of the creek below the culverts that has been eroded down to bedrock will be treated with a series of random boulder clusters and large logs. This will reduce water velocities and allow gravel and sediment to collect, and will create additional complex habitat for juvenile salmonids.

9. Project Description: (Describe how the project will be conducted and how its goals and objectives will be met.)

The Elk Creek Watershed Council will contract with a qualified engineer to design the bridge crossing. ODFW and BLM Fisheries Biologists will help design the stream restoration component of the project and the large wood placements. The Council will be responsible for securing all required permits, and will develop and administer

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agreements with contractors to perform the work. The Council will also administer the funding grants for the project, and will be responsible for all financial accounting and reports.

An excavator will be used to remove the two (2) failing culverts, which will be replaced with a railroad car bridge. The stream will be restored to its natural bottom and channel width. Construction will be consistent with the Best Management Practices specified in the SLOPES III Biological Opinion (NMFS), and will be supervised by ODFW Fisheries Biologists.

The section of the stream below the culverts that has been eroded to bedrock will be restored with the addition of logs and boulders. Where practicable logs will be placed in areas where they can mimic key pieces of large wood and trap sediment to create a series of pool habitats. Logs will be a minimum of eighteen to twenty-four inches in diameter (18-24"), and twice the active channel width in length. In other areas, random boulder clusters will be used to slow water, retain gravel and sediment, and create complex habitat. Boulders will be approximately one (1) cubic yard. All practices will conform to standards of the Oregon Aquatic Habitat Restoration Guide, and all construction will be supervised by ODFW Fisheries Biologists.

An excavator will be used to construct LWD "log jams" along a two (2) mile section of Lees Creek. Sites will be selected where slowing water can overflow onto the historical floodplain, and where the logs can be anchored by existing large trees in the riparian area. All logs will be 18-24" in diameter and twice the active channel width (consistent with the Oregon Aquatic Habitat Restoration Guide). Most work will be performed from the bank, and equipment will be allowed into the creek only when absolutely necessary. Access through the riparian area will be allowed only at specific locations selected to minimize damage. All work will be supervised by ODFW and BLM Fisheries Biologists.

10. How will cooperative relationships among people that use federal lands be improved?

This project will improve the cooperative relationships among the Roseburg District BLM, ODFW, the Elk Creek Watershed Council, and private landowners in the Lees Creek Watershed.

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11. How is this project in the best public interest and how will it benefit communities?

This project will restore habitat and improve water quality in the Lees Creek watershed. The project benefits the public in several ways:

- The project improves fish habitat in an important Coho Salmon stream. Improved fish runs are a benefit to all segments of the public.
- The culvert replacement will improve water quality by reducing the risk of fine sediment being released into the stream and damaging spawning beds.
- The project benefits the local economy by maintaining infrastructure important to both the people of Douglas County and to the interests of landowners.
- The project will create jobs for local contractors who are expected to bid on construction.
- This project will build better working relationships among the Elk Creek Watershed Council, ODFW, local landowners, and the Roseburg District BLM. These relationships are important to the overall success of the voluntary watershed restoration approach of the Oregon Plan for Salmon and Watersheds.

12. Who will accomplish the project?

Contractor Federal Workforce

County Workforce Volunteers

Other (specify):

The Elk Creek Watershed Council will:

- Secure funding.
- Apply for all required permits.
- Develop and enter into contracts for the design and construction of the project.
- Coordinate and manage the project.
- Administer all grant funds.
- Prepare all documents and reports as required by funding agencies.

ODFW will :

- Supervise construction.
- Conduct pre- and post-project monitoring.

Participating landowners will:

- Permit access to their lands.

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13. Is this project coordinated with other related project(s) on adjacent lands?
a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, then describe)
The landowner is considering enrolling in the CREP program to construct fencing to restrict livestock access, and to plant native trees and shrubs, in the riparian area.
b. Are you seeking funds from other Resource Advisory Committees? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, then describe)

14. If the project is on private land how does it benefit federal lands or resources?
Fish habitat and water quality improvements on private lands are important to the federal lands in the headwaters of the watershed. The improvements from this project will especially benefit Coho and Steelhead using the higher gradient stream reaches on the BLM lands above the project area.

15. Measure of Project Accomplishments	
a. Total Acres: NA	b. Total Miles: 1
c. Number of Structures: 1	d. Estimated Number of People Reached (for environmental education and workforce training projects): NA
e. Number of Laborer Days: NA	
f. Other (specify):	
g. Describe how long will the benefits of the project last: Indefinitely	

16. Will the project generate merchantable materials?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:

17. How does the proposed project meet purposes of the legislation? (Check at least one)
<input checked="" type="checkbox"/> Improves maintenance of existing infrastructure.
<input checked="" type="checkbox"/> Implements stewardship objectives that enhance forest ecosystems.
<input checked="" type="checkbox"/> Restores and improves land health.
<input checked="" type="checkbox"/> Restores water quality.

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18. Project Type (Check at least one)	
<input type="checkbox"/> Road Maintenance	<input type="checkbox"/> Trail Maintenance
<input type="checkbox"/> Road Decommission/Obliteration	<input type="checkbox"/> Trail Obliteration
<input checked="" type="checkbox"/> Other Infrastructure Maintenance (specify): Culvert Replacement	
<input type="checkbox"/> Soil Productivity Improvement	<input type="checkbox"/> Forest Health Improvement
<input checked="" type="checkbox"/> Watershed Restoration & Maintenance	<input type="checkbox"/> Wildlife Habitat Restoration
<input checked="" type="checkbox"/> Fish Habitat Restoration	<input type="checkbox"/> Control of Noxious Weeds
<input type="checkbox"/> Reestablish Native Species	
<input type="checkbox"/> Other Project Type (specify):	

<p>19. Project Initiation and Estimated Completion Dates: (Describe the timing of the major phases of the project)</p> <ul style="list-style-type: none"> ▪ Grants for additional funding: Fall 2007 ▪ Pre-project monitoring: Fall 2007 ▪ Project Designs: Winter 2007-2008 ▪ Permit Applications: Winter 2007-2008 ▪ Contract Preparation: Spring 2008 ▪ Bid Solicitation: Spring 2008 ▪ Construction: Summer 2008 ▪ Post-project monitoring: Fall 2008-Spring 2009
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20. Status of Project Planning:			
a. NEPA process complete:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
b. Consultation complete:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
c. DSL/ODFW* permits for in-stream work obtained:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
d. DSL/COE* 404 fill/removal permit obtained:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
e. SHPO* concurrence received:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Not Applicable
f. Project design(s) completed:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
g. If you answered yes to any of the questions above, please describe who will accomplish the work and when it will be complete:			
* DSL = Dept. of State Lands, ODFW = Oregon Department of Fish and Wildlife, COE = Army Corps of Engineers, SHPO = State Historic Preservation Officer			

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21. Anticipated Project Costs:
a. Total Title II funds requested: \$ 31,195

Table 1. Project Cost Analysis (Includes all expenditures for the life of the project)

Item	Fed. Agency Appropriated Contribution	Requested County Title II Contribution	Other Contributions	Total Available Funds
Planning and Permits		\$ 360	\$ 2,720	\$ 3,080
Design & Engineering		\$ 1,350	\$ 6,680	\$ 8,030
Project/Contract Management		\$ 1,260	\$ 7,440	\$ 8,700
Project/Contract Implementation ¹		\$ 14,500	\$ 58,000	\$ 72,500
Materials & Supplies ²		\$ 10,500	\$ 47,000	\$ 57,500
Post-Project Monitoring		\$ 240	\$ 1,920	\$ 2,160
Mileage:		\$ 485	\$ 340	\$ 825
Grant Administration		\$ 2,500	\$ 10,000	\$ 12,500
Total Cost Estimate		\$ 31,195	\$ 134,100	\$ 165,295

¹This could be either the cost of the labor for project implementation or the cost of a contract.

²If the project is implemented by contract, materials and supplies are likely included in the cost of the contract.

22. Provide a budget narrative, including a description of other source(s) of funding for the project identified above and/or a clarification of any other aspects of the budget:

"Other Contributions" in the budget include:

- OWEB: (Cash) \$ 122,840
 - Douglas County SHIP: (Cash) \$ 5,000
 - ODFW/BLM: (In-kind) \$ 6,260
- \$ 134,100**

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23. Monitoring Plan
<p>a. What measures or evaluations will be made to determine how well the proposed project meets the desired ecological conditions? Who will be responsible for this monitoring item?</p> <p>Pre-project Monitoring:</p> <ul style="list-style-type: none">a. ODFW: Fish use; Spawningb. ECWC: Photo documentation <p>Post-project Monitoring:</p> <ul style="list-style-type: none">c. ODFW: Fish use; Spawningd. ECWC: Photo documentation
<p>b. How will the project be evaluated to determine how well it contributes to local employment and/or training opportunities, including summer youth jobs programs such as the Youth Conservation Corps? Who will be responsible for this monitoring item?</p> <p>Local contractors are likely to bid on, and have the contract awarded to them. No further evaluation is planned.</p>
<p>c. What methods will be established to determine how well the proposed project improves the use of, or added value to, any products removed from federal lands consistent with the purposes of this Act? Who will be responsible for this monitoring item?</p> <p>Not applicable.</p>

24. What are the analyses, plans, legislation, or other supporting documents that support and guide this application? (E.g. the Northwest Forest Plan, a watershed analysis, a late successional reserve assessment, or the Oregon Plan for Salmon.)
Elk Creek Watershed Analysis (BLM-2004) Elk Creek Watershed Council Fisheries Summit (November 2006) Oregon Plan for Salmon and Watersheds (OWEB) Oregon Aquatic Habitat Restoration and Enhancement Guide (OWEB) Umpqua Agricultural Water Quality Management Area Plan (ODA) Umpqua Basin TMDL (DEQ) Oregon Coast Coho Conservation Plan (State of Oregon - 2007)

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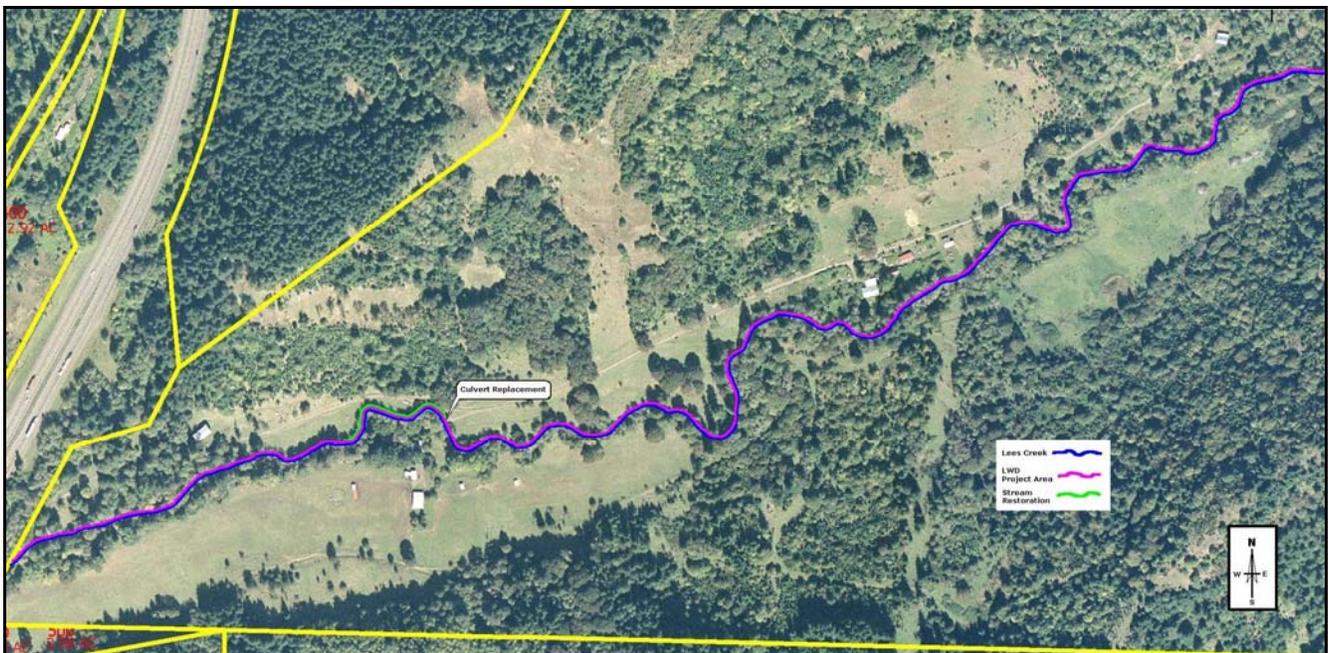
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25. Who are the key people responsible for this project? (List their names and titles)

Lee Russell - Elk Creek Watershed Council Coordinator
James Mast - Elk Creek Watershed Council Chairman
Jim Brick - ODFW Fisheries Biologist
Don Porior - Engineer - Porior Engineering

26. Attach a map and photograph(s) of the project. (At a minimum, the map should show the project location, roads, and streams, and private versus BLM ownership. The photograph should show the project site or a representative portion of it. More than one photograph can be submitted, but they must all fit on one page. A digital photograph incorporated into this application is preferred; hard copies will be copied in black and white.)

Lees Creek Habitat Improvement Project: Site Photo



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Bedrock Stream Restoration Site:



Undersized, Failing Culverts:



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Undersized, Failing Culverts:

