Grande Ronde Model Watershed Program
FY 2009 Applications

1) **Project Name:** Mill Creek Warnock Push-up Dam Elimination

2) **Applicant:** Union SWCD
10507 N. McAlister Rd
La Grande, OR 97850
Phone (541) 963-0724
Fax: (541) 963-1075
lisa.cron@oacd.org

3) **Participating Landowner and Agencies:**

Ron Warnock	**OWEB**	**Union SWCD**
60056 McNeil Rd	PO Box 538	10507 N. McAlister Rd
Cove, OR 97824	Enterprise, OR 97828	La Grande, OR 97850
(541) 568-4681	(541) 426-0342	(541) 963-0724
	(541) 426-6019	(541) 963-1075

4) **Project Contacts:**

Administrative Contact: **Lisa Mahon**
lisa.cron@oacd.org
10507 N. McAllister Rd
La Grande, OR 97850
Phone #(541) 963-0724
Fax # (541) 963-1075

Technical Contact: **Layne Lindley**
llindley@bmi.net
10507 N. McAllister Rd
La Grande, OR 97850
Phone #(541) 963-0724
Fax # (541) 963-1075

5) **Project Location:**
   a. *Legal:* T3S R40E Sec. 23
   b. *County*: Union
   c. *Watershed:* Upper Grande Ronde
   d. *Stream:* Mill Creek, Tributary to the Grande Ronde River

6) **Project Objectives:**

The Grande Ronde Subbasin Plan Supplement lists sediment loads and key habitat quantity (pg 15) as the two main limiting factors in the Upper Grande Ronde for Steelhead. The removal of the push up dam will allow juvenile steelhead to access just less than two miles of quality habitat. The elimination of the dam will also address the sediment load, by reducing the amount of sediment being put into the river system each year. This project will help with channel stabilization, reducing the amount of disturbance that occurs.

7) Project Description

a. Introduction:

This project will eliminate a push up dam on Mill Creek allowing access to just less than 2 miles of stream with high quality habitat and will protect water quality. We plan to install three v-weirs to step up the grade to the point of the diversion. The weirs will meet ODFW passage criteria, which is no more than a 6-inch rise. The owners have installed a head gate, and they will install 1400 feet of 8-inch pipe to prevent seepage loss from the earthen delivery ditch. The pipe will begin below the existing fish screen located on the ditch. The landowner and the SWCD are the partners in this project. OWEB funds will be used to pay for final engineering design and construction inspection and part of the grant administration. GRMW funds will be used to pay for three v-weirs, District Employee time for the Biological Assessment, a Cultural Resource Inventory, and part of the grant administration.

b. Existing Condition

Every year irrigators on the McNeil Ditch construct a push up dam in Mill Creek upstream of Cove to divert water for cherry orchards and pastures. This dam blocks juvenile steelhead passage, and creates temporary and long-term water quality problems. The equipment entering into the stream bed each year to build the push up dam is causing an excess amount of sediment into the river system below. This constant disruption in the stream has detrimental effects on the water quality down stream from the project site.

c. Specific Actions

1) Install 3 v-weirs: Each weir will be built so that the water level at the diversion will be about 18-inches. The weirs will be installed to meet an ODFW fish passage criterion, which allows no more than a 6-inch rise. We will use 18 to 36 – inch rock to construct the weirs. They will be about 50 feet apart, and will span the creek, which averages about 12 feet in width in the project area.

2) 1400 feet of piping: The open ditch will be piped with 8-inch pvc. This pipe will begin below the existing fish screen that is on the ditch. The current earthen ditch loses about 50 percent of the diverted water in this stretch. Using an 8-inch pipe will ensure the users will not be able to take more than their allowable water right.

d. Benefits

1) Provide for upstream fish passage to just less than 2 miles of good quality spawning and rearing habitat
2) Improving water quality, reducing sediment delivery in the stream.
3) Improve bank and channel stability there by reducing sediment delivery to the stream.
4) Eliminate equipment operating in the stream, stopping the pulse of turbidity and sediment during the annual construction of the push up dam.
5) Increase irrigation efficiency, allowing the landowner to efficiently use the water being pulled from the stream and potentially needing to pull less water

e. Project Maintenance

The project will require general maintenance on the piping portion. This regular maintenance and any unforeseen maintenance will be the responsibility of the landowner. Maintenance is required a minimum of 10 years, but the landowner, will continue for the life of the structures.

f. Permits

The District will assist the landowner in obtaining the necessary permits for in-stream work.
-DSL, COE, ESA Consultation, Biological Assessment, and Cultural Survey Inventory

g. Monitoring Plan

This project is partially funded by OWEB, so the monitoring with follow their criteria. This will include a monitoring report one year after the completion date and a second one two years after the completion date. These reports will give a brief description of the project, if it is continuing to meet its initial objective, any major problems and costs incurred by the landowner for maintenance, and monitoring photos. These monitoring reports will be completed by Union SWCD Staff.

h. Work Dates

The work will be completed in the fall of 2009. Because of the in-stream work needed we will be consulting with ODFW on the work dates allowed through our permits. We would like the BPA Contract to be from April 1, 2009-December 31, 2009.

8) Project Budget

	A	B	C	D	E	F
Itemize projected costs under each of the following categories.	**Unit Number**	**Unit Cost**	**Landowner In-Kind/ Cash Funds**	**OWEB Funds**	**GRMW Funds**	**Total Costs**
PROJECT MANAGEMENT.						
IN-HOUSE PERSONNEL.						
Final Design	60 hrs	$50/hr		$3,000		$3,000
Construction Inspection	10 hrs	$45/hr		$450		$450
Permits	40 hrs	$25/hr		$1,000		$1,000
BA Preparation	30 hrs	$30/hr			$900	$900
CONTRACTED SERVICES.						
V-weirs (construction and materials combined)	3	$3,750			11,250	$11,250
Trenching and pipe installation	1400 feet	$4/ft	$5,600			$5,600
Excavation for headgate and structure	200 CY	$4		$800		$800
Mobilization	LS	$800		$800		$800
Cultural Resource Inventory	1	$1,500			$1,500	$1,500
TRAVEL.						
SUPPLIES/MATERIALS.						
Concrete for headgate	LS	$500		$500		$500
8-inch pvc pipe	1400 feet	$4.50/ft	$700	$5,600		$6,300
Rock for bank protection around new structures	30 CY	$25/CY		$750		$750
Headgate	1	$150	$150			$150
		SUBTOTALS	$6,450	$12,900		$33,000
POST-IMPLEMENTATION STATUS REPORTING.						
Union SWCD (1 year)	10 hrs/yr	$25/hr		$250		$250
FISCAL ADMINISTRATION.						
Union SWCD (Admin and final report)	6.1%			$800	$1,350	$2,150
		TOTALS	$6,450	$13,950	$15,000	$35,400

9) Attachments

a. Maps

b. Designs

c. Pictures