

**2008 - 2011 Secure Rural Schools
Public Law 110-343
TITLE II PROJECT SUBMISSION FORM
USDA FOREST SERVICE
SHOSHONE RESOURCE ADVISORY COMMITTEE**

Project Status: Proposed

Funding Fiscal Year: 2011 - 4th year

2. Project Name: Upper Sunshine Diversion Fish Ladder

3a. State: Wyoming

3b. County: Wyoming - Park

4. Project Submitted by: Cory Toye, Trout Unlimited (TU)

5. Date: 02/28/2011

6. Contact Phone:

7. Contact E-Mail:

8. Project Location

a. National Forest: Shoshone

b. Forest Service District: Greybull

c. Location (Township-Range-Section)

48-102-30

9. Project Goals and Objectives:

10. Project Description:

a. Brief: (*in one sentence*) Install a fish ladder on the Greybull Valley Irrigation District's (GVID) Upper Sunshine Diversion to provide upstream passage for all fish in the Greybull River

b. Detailed:

The Greybull River drainage is a priority fish habitat area for TU and other project partners (including the USFS) for its population of genetically pure Yellowstone cutthroat trout (YCT) and other native fish including: Mountain whitefish, Mountain sucker, Longnose dace and Longnose sucker. The drainage boasts one of the last strongholds of the purest YCT on the Shoshone Forest. Past efforts to improve fishery health have included projects to address fish passage and riparian health including: Timber Creek Low Water Fork Project (USFS), Timber Creek State Land Easement Project (USFS), Timber Creek Fish Passage (through the main access road on the Pitchfork Ranch) and Riparian Restoration Project (TU, USFS, WGFD, Wyoming Wildlife and Natural Resource Trust (WWNRT)) and the Francs Fork Reconnect Project (TU, USFS, WGFD, Jackson Hole One Fly Foundation and WWNRT).

The GVID operates a mainstem diversion structure on the Greybull River to fill the Upper Sunshine Reservoir. The water stored in the reservoir serves the 80,000 acre irrigation district. The diversion structure was constructed in the late 1930s and is a complete barrier for all upstream movement of fish in the drainage. During the summer of 2011, the GVID will be replacing the existing diversion structure to provide a more efficient water delivery system. The GVID has given permission to TU and other project partners to install a fish ladder on the new structure to provide fish passage through the structure. Upon completion, the population of YCT will be reconnected to over 100 miles of mainstem and tributary habitat above the diversion for the first time in nearly 80 years.

Reconnecting YCT populations throughout the drainage will lead to a more stable and resilient assemblage of native fish and allow fish to access historical habitat, including mainstem and tributary habitat located on the forest. Eliminating migration barriers is often one of the key steps toward providing additional habitat for sensitive aquatic species, encouraging genetic interchange among populations, and insulating fish populations from fire, drought, and/or climate-based events. The removal of the barriers and increasing accessible habitat has been identified as an important need for YCT recovery and conservation. Information gathered through the Yellowstone cutthroat trout Interagency Coordination Group's "Range-Wide Status Assessment for Yellowstone Cutthroat Trout" suggests YCT populations benefit from a larger number of fish occupying relatively large amounts of habitat with well defined habitat networks that allow for connection among sub-components of the population. Installing the fish ladder to reconnect Greybull mainstem and tributary habitat will provide protection for the local populations of YCT within the entire watershed.

11. State/Private/Other lands involved? Yes

If Yes, specify: The diversion structure is located on private land owned by the Pitchfork Ranch, the GVID has an easement for maintenance and operation of the diversion structure.

12. How does the proposed project meet purposes of the Legislation? (check at least 1)

13. Project Type:

a. Check all that apply: (*check at least 1*) Watershed Restoration & Maintenance, Forest Health Improvement, Fish Habitat Restoration

b. Primary Purpose (*select only 1*)

14. Identify what the project will accomplish

1 Number of structures maintained/improved

100 Miles of fish habitat restored/improved

Describe other accomplishments

This project will serve as an example for similar projects in the future. Installing a fish screen to provide upstream passage, while not interrupting irrigation practices, will lead to more opportunities for conservation and agriculture partnerships to improve fishery health.

15: Estimated Project Start Date:
07/01/2011

16: Estimated Project Completion Date:
10/01/2011

17. List known partnerships or collaborative opportunities.

Trout Unlimited
Shoshone National Forest
Wyoming Game and Fish Department
US Fish and Wildlife Service
Greybull Valley Irrigation District
Pitchfork Ranch
East Yellowstone Chapter of Trout Unlimited

18. Identify benefits to communities.

(max 12 lines)

- Provide an example of local proactive maintenance of native populations through non-traditional partnerships.
- Improve the native fishery in the Greybull River and its tributaries for increased angling opportunities on public land

19. How does this project benefit federal lands/resources? *(max 12 lines)*

Fish currently trapped downstream of the Upper Sunshine Diversion structure will have access to spawning and refugia habitat in the mainstem Greybull and its tributaries located on Shoshone Forest Land, including: Francs Fork, Pickett Creek, Jack Creek, Anderson Creek, Venus Creek and others.

20. What is the proposed method(s) of accomplishment? *(check at least 1)*

Contract

21. Will this project generate merchantable timber? NO

22. Anticipated Project Costs

- Please fill out a project cost form for each fiscal year the project will be funded
- Is this a multi-year funding request?

24. Monitoring Plan *(Input or attach below)*

- Provide a plan that describes your process for tracking and explaining the effects of this project on your environmental and community goals outlined above.

TU is responsible for the monitoring of this project and will continue to be in close contact with landowners and project partners about the success of the project. The fish ladder will be managed by project partners including TU, Pitchfork Ranch and the GVID. TU will communicate project results through the media including TU newsletters and local newspapers.

Success of the project will be determined through a telemetry study to monitor trout movement starting in the spring of 2011. The movement study will be administered by the WGF to:

- Determine general movement patterns of YCT within the Greybull River drainage.
- Document the extent to which YCT movement is blocked or inhibited by in-channel structures.
- Determine the extent to which YCT are entrained in irrigation diversions.

The study will help determine how YCT are taking advantage of the recently completed habitat improvement projects and help identify future opportunities to improve YCT populations within the Greybull drainage. The study will also quantify the success of the fish ladder on the Upper Sunshine Diversion. The movement study will be complimented with TU's Adopt a Trout (AAT) Program. The AAT program is a partnership with TU and other project partners to educate school kids about their local watershed and its fishery. Each trout will receive a telemetry tag and will be "adopted" by the students. The movement will be monitored throughout the school year. Each month, TU and other project partners will update the kids with fish locations and provide a lesson to further their understanding of the resource. Curriculum includes lessons on trout life cycles, habitat needs, how to use GPS, mapping skills and the importance of connected migratory corridors to the health of fisheries on private and public land. The local community and private landowners will be included in this project to help identify projects and partnerships to improve YCT populations in the Greybull Drainage.

\$0 from the RAC Funding will be used to carry out specified monitoring tasks. Other project partners will absorb the \$20000 monitoring costs.

- Identify who will conduct the monitoring:

Wyoming Game and Fish Department, Trout Unlimited

- Identify total funding needed to carry out specified monitoring tasks:
- Identify remedies for failure to comply with terms of the agreement.

If project cannot be completed under the terms of this agreement:

If other is selected, explain:

Project Recommended by:
Chairperson, RAC

Project Approved by:
Forest Supervisor, Shoshone National Forest

Project Cost Analysis

Item	<i>Column A</i> Fed. Agency Appropriated Contribution	<i>Column B</i> Requested Title II Contribution	<i>Column C</i> Other Contributions	<i>Column D</i> Total Available Funds
a. Field Work & Site Surveys	0	0	0	0
b. NEPA/CEQA	0	0	0	0
c. ESA Consultation	0	0	0	0
d. Permit Acquisition	0	0	0	0
e. Project Design & Engineering	0	0	0	0
f. Contract/Grant Preparation	0	0	0	0
g. Contract/Grant Administration	0	0	0	0
h. Contract/Grant Cost	50000	0	0	50000
i. Salaries	0	0	0	0
j. Materials & Supplies	0	20000	55000	75000
k. Monitoring	0	0	20000	20000
l. Other				
in-kind technical support	0	0	10000	10000
Partner Indirect Costs	0 0	0 0	0 5000	0 5000
m. Project Sub-Total	50000	20000	90000	160000
n. FS Indirect Costs	0	0	0	0
Total Cost Estimate	50000	20000	90000	160000



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