



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
MONTANA PARTNERS FOR FISH & WILDLIFE PROGRAM  
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IN REPLY REFER TO:

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February 09, 2001

TO: Columbia Basin Fish and Wildlife Authority (CBFWA)  
From: Gregory A. Neudecker, USFWS  
SUBJECT: Responses to the ISRP and CBFWA Comments

**Project Number:** 23021

**Project Title:** Restoring Bull Trout Habitat in the Blackfoot River's North Fork

**Sponsor:** Montana Trout Unlimited

**ISRP or CBFWA Comment or Issue #2:** What evidence exists to show that spawning and rearing area in tributaries limits the size of this population?

**Response to #2:**

Excluding the Clearwater River, fluvial bull trout currently inhabit 14 sub-basins, and based on historical records, are extirpated from 10 drainages or approximately 110 miles of streams. Fluvial bull trout currently occupy approximately 430 river miles in the drainage, including 120 miles of mainstem river and 310 miles of tributaries. Spawning occurs in groundwater upwelling areas that represent approximately 24 of these 310 stream miles (Pierce et al. 1997). In 1989, only three of the 19 sampled tributaries had densities of bull trout YOY greater than one fish/100' (Peters 1990). The North Fork Blackfoot River (CPUE 5.6/100'), Monture Creek (CPUE 5.6/100') and Copper Creek (CPUE 3.8/100') contained the largest populations of juvenile bull trout in the Blackfoot Basin (Pierce et al. 1998).

MT Fish, Wildlife & Parks in its Blackfoot River Restoration Project: Monitoring and Progress Report, 1997-1998, list three restoration objectives: 1) Eliminate the loss of bull trout and westslope cutthroat trout to irrigation canals. 2) Manage riparian areas to protect habitat for native fish. 3) Improve recruitment of native fish to the Blackfoot River. As stated in the High Priority Proposal, all five irrigation ditches have been

screened. In 1998, fish surveys were completed in four of five irrigation canals downstream of fish screens. No fish were collected in any of these ditch samples. The High Priority Proposal if funded, would help address objectives 2 and 3 listed above.

In MT Fish, Wildlife and Parks ❖ Blackfoot River Fisheries Inventory, Monitoring and Restoration Report 2000❖ they list restoration objectives for Kleinschmidt Creek (a tributary to Rock Creek and the North Fork) as: reduce whirling disease infection levels, restore stream channel morphology for all life stages of trout, increase recruitment of trout to the Blackfoot River, and restore thermal refugia and rearing areas for North Fork bull trout. I believe the High Priority Proposal if funded would address all of these objectives.

Rock Creek (a tributary to the North Fork) historically supported spawning migrations of bull trout and cutthroat trout, and also was a migration corridor between the North Fork Blackfoot River and the Coopers Lake and upper Dry Creek drainages (Pierce et al. 1997). MT Fish, Wildlife & Parks in its Blackfoot River Restoration Project: Monitoring and Progress Report, 1997-1998, found very low numbers of westslope cutthroat trout and bull trout in Rock Creek. That same report also listed Restoration Objectives for Rock Creek as: 1) Restore Migration corridors for westslope cutthroat and bull trout. 2) Restore natural stream morphology to improve rearing and spawning habitat for all fish using the system. Again, if funded the High Priority Proposal would address these issues.

While the North Fork River Watershed is one of three strong holds for bull trout in the Blackfoot Watershed, bull trout numbers are believed to be a fraction of what they were historically. In fact tributaries to the North Fork such as Rock Creek and Kleinschmidt Creek, bull trout are just barely measurable. We believe instream flow enhancement and habitat restoration projects will provide better access to spawning sites; improve complex habitat for staging bull trout; improve water temperature; and significantly improve juvenile bull trout rearing habitat. Because of these reasons, the North Fork Watershed is our highest priority for restoration work in 2001. We also believe that restoration efforts in the North Fork Watershed will give us the greatest chance for bull trout recovery in the Blackfoot River Watershed.

**ISRP or CBFWA Comment or Issue #3:** What is the monitoring plan (Specifically related to juvenile bull trout)?

**Response to #3:** Montana Fish, Wildlife & Parks has documented its inventorying and monitoring activities through a series of reports including:

Peters, D. and R. Spoon 1989. Preliminary Fisheries inventory of the Big Blackfoot River. Montana Fish, Wildlife and Parks (MTFWP)

Peters, D. 1990. Inventory of Fishery resources in the Blackfoot

River and Major Tributaries. MTFWP

Pierce, R. 1991. A Stream habitat and Fisheries Analysis for six tributaries fro the Blackfoot River. MTFWP

Peters, D. and R. Pierce 1995. Aquatic Restoration in the Blackfoot River and Rock Creek Drainages. MTFWP

Pierce, R., D. Peters and T. Swanberg 1997. Blackfoot River Restoration Project Progress Report. MTFWP

Pierce, R. and D. Schmetterling 1999. Blackfoot River Restoration Project: Progress and Monitoring Report 1997-1999. MTFWP

Pierce, R. and C. Podner 2000. Blackfoot River Fisheries Inventory, Monitoring and Restoration Report 2000. MTFWP

Specific fish population monitoring ongoing in the North Fork River Watershed include:

North Fork: Five levels of fish population surveys have been undertaken on the North Fork Blackfoot River including: 1) bull trout redd counts established in 1989 and redone yearly; 2) juvenile bull trout shoreline samples in five index sections originally established in 1989 and redone in 1990, 1991, 1994, 1996, 1998, 2000; 3) mark-and-recapture population surveys in the lower reach of the North Fork (RM 5.9-2.1) originally established in 1989 and redone as listed above; 4) fish surveys in irrigation canals; and 5) radio telemetry studies beginning in 1994.

Rock Creek: Five levels of fish habitat and fish population surveys have been completed in Rock Creek including: 1) instream habitat surveys, 2) riparian inventories, 3) temperature monitoring, 4) fish population monitoring at several locations, and 5) pre- and post-restoration project surveys.

Kleinschmidt Creek: Three levels of fish habitat and fish population surveys have been completed in Kleinschmidt Creek including: 1) fish population surveys at three locations established in 1998, 2) stream temperature monitoring, and 3) a whirling disease sentinel cage study.

Blackfoot River: Two long-term monitoring sections were established in the Blackfoot River below the North Fork Blackfoot River in 1989. These spring monitoring reaches track estimated fish population densities in the Blackfoot River. We believe these numbers are also good indicators for the success of our restoration efforts in tributary streams including the North Fork.

The long-term monitoring plan is to first and foremost continue monitoring all of the established monitoring reaches listed above at a minimum of once every two years. Reports will be generated at least every two years to document native fish populations. We will also monitor all restoration projects within the North Fork Watershed before and after restoration and quantify in reports bull trout and westslope cutthroat trout responses.

More detailed information may be obtained from the reports listed above or by contacting Ron Pierce, a Fisheries Biologist with MTFWP in Missoula, MT (406 542-5532) . Ron is the principle fisheries biologist working on the North Fork Project and has been involved with all phases of this project.

I hope the answers listed above will help the review committee better understand the biological benefits of the North Fork Project.

If you have any questions or comments don't hesitate to give me a call.