REP ID: _____

REF ID: 88821

Montana Fish, Wildlife & Parks

P.O. Box 200701
Helena, MT 59601
(406)444-1563
FAX: (406) 444-4952

March 7, 2005

Wade Fredenberg
U.S. Fish and Wildlife Service
100 North Park, Suite 320
Helena, MT 59601

Dear Wade:

Attached is FWP's 2004 annual report and 2005 conservation plan for bull trout pursuant to Section 6(c)(1) of the Endangered Species Act and our annual Section 6 agreement with your office. The conservation plan identifies all conservation and recovery activities that could harm bull trout that will be completed under supervision of the Department through 2005.

In 2004, FWP completed numerous monitoring, research, and habitat restoration projects throughout the range of bull trout in Montana. These projects have resulted in handling of 2,859 bull trout in 2004, with 201 known mortalities, the majority of which resulted from gill-netting surveys. We will maintain a record of all bull trout handled in 2005 and will submit that information in addition to mortality data with our 2005 annual report. Please note that with the exception of the Helena National Forest, no other Forest Service activities are covered under this permit since they have not submitted collection permit applications.

FWP will proceed with the projects listed in the enclosed plan unless we hear otherwise from you. We will forward any additions or changes to the plan as amendments. Please call if there are any questions.

Sincerely,

Bob Snyder
Native Species Program Manager

cc: Mark Wilson, USFWS, Helena
Jim Vashro, FWP Region 1
Brian Marotz, FWP Region 1
Pat Saffel, FWP Region 2

2004 ANNUAL REPORT & 2005 CONSERVATION PLAN

for

BULL TROUT

in

MONTANA

(January 1, 2005 - December 31, 2005)

prepared by:

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS

pursuant to:

SECTION 6(c)(1) of the ENDANGERED SPECIES ACT

Montana Department of Fish, Wildlife and Parks
1420 East Sixth Avenue
P.O. Box 200701
Helena, MT 59620

February 2005

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INTRODUCTION

Under Title 87 of the Statutes of the State of Montana, the Montana Department of Fish, Wildlife and Parks is directed to supervise the fish, wildlife, game, and non-game animals of the state. It is the policy of the Montana Legislature that species or subspecies of wildlife indigenous to this state, which may be found to be endangered within the state, should be protected in order to maintain, and to the extent possible, enhance their numbers (87-5-103). Further, it is the mission of the Department of Fish, Wildlife and Parks to provide for the stewardship of the fish and wildlife resources of Montana while contributing to the quality of life for present and future generations.

Under this direction, the Montana Department of Fish, Wildlife and Parks has implemented a large, diverse conservation program to manage, and where appropriate and possible, enhance populations of bull trout in Montana. This conservation program includes establishment of restrictive angling regulations, education of anglers about bull trout identification, population monitoring and assessment, habitat monitoring and assessment, habitat restoration, research into natural history, habitat needs, and life history requirements of bull trout, genetic analysis and monitoring of different bull trout populations, enforcement of protective bull trout regulations, education of the general public about bull trout and aquatic ecosystems, and restoration planning. Although the actions described above are directed towards enhancing the recovery of bull trout, and are part of an active conservation program for bull trout in Montana, some (e.g., population monitoring, habitat restoration) have potential to result in incidental or direct take of bull trout as described under Section 9 of the ESA. Therefore, the Department of Fish, Wildlife and Parks is seeking authorization for incidental take of bull trout under Section 6(c)(1) of the ESA, for purposes of conservation and recovery of bull trout in Montana.

Listed below are descriptions of activities for which the Department is seeking approval for take of bull trout in accordance with Section 6(c)(1) of the ESA. Included with the activity descriptions are the methods followed to conduct such activities, drainages where activities will occur, a description of the specific activities, approximate dates the activities will occur, personnel responsible for conducting such activities, and an estimate of take. Where applicable, specific research proposals and progress reports are also included.

The activities included can all be classified as monitoring or restoration actions, all of which contribute to the conservation and recovery of the species. Although monitoring actions such as gill netting and electroshocking may result in harm to individual bull trout, it is important they continue so that population trends can continually be assessed. Without these techniques, the current status of populations and bodies of water would not be possible. Because of the potential for take, efforts to minimize harm are maximized.

This plan will be updated annually, and by February 28 of each year, the Department will provide a report of actions accomplished during the previous calendar year, with an estimate of actual take. If the need arises, this plan will be amended to identify additional actions not already covered in this plan. Written notification of such additions will be made to the U.S. Fish and Wildlife Service prior to the action being implemented.

Listed below are the major actions that will be undertaken by the Montana Department of Fish, Wildlife and Parks as part of their bull trout recovery and conservation program. All activities that fit

within each action category are summarized in a table. Included in the table is an estimate of direct take (if known) or indirect take for all actions in that category (e.g., gillnetting). A complete summary table, arranged by drainages, is included to allow analysis of cumulative effects. Actions described herein are in addition to numerous other extensive efforts undertaken by the Department to conserve bull trout, but which do not result in take, including angling regulations, enforcement, education, restoration planning, project analysis, implementation monitoring of best management practices (BMPs), watershed planning, and database maintenance.

CONSERVATION ACTIONS

Gillnetting

Gillnetting is an effective sampling tool to collect fisheries data including abundance, size- and age-structure, and community composition for large and small lakes. The Montana Department of Fish, Wildlife & Parks has employed this method for many decades in numerous and diverse state waters to monitor populations of fish.

Standard, experimental floating and sinking nets are used to sample fish in near-shore areas. Sample site locations, net type and orientation, and time of sampling are standardized within each water to permit the evaluation of population trends. Any bull trout captured alive are released immediately to reduce mortality.

More detailed discussion of methodologies can be found in previous Annual Section 6 Reports submitted by MFWP.

Table 1. Summary of gill-netting activities in bull trout habitat that will be undertaken by Montana Department of Fish, Wildlife and Parks.

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT Handled	Actual Mort.	Do in 2005 ?
Clark Fork (Lower)	Thompson Falls Reservoir	Gillnetting	Fish Community Assessment	Res. Wide	Oct	Laura Katzman Jay Stuckey	1	Y	0	0	Y
Clark Fork (Lower)	Cabinet Gorge Reservoir	Gillnetting	Fish Community Assessment	Res. Wide	Sept-Oct	Laura Katzman Brad Liermann	0	N	0	0	Y
Clark Fork (Lower)	Noxon Rapids Reservoir	Gillnetting	Fish Community Assessment	Res. Wide	Sept-Oct	Laura Katzman Brad Liermann	0	Y	0	0	Y
Clark Fork (Lower)	Noxon Rapids Reservoir	Gill netting	Walleye Life History Study	Res. Wide	Mar-April	Brad Liermann	1	Y	3	1	N
Clark Fork (Lower)	Noxon Rapids Reservoir	Gill netting	Walleye Life History Study	Res. Wide	Sept-Nov	Brad Liermann	1	Y	1	0	Y
Clark Fork (Upper)	Milltown Reservoir	Gillnetting	Monitor Northern Pike	Res. Wide	May-Nov	Dave Schmetterling	1	Y	3	0	Y
Clearwater	Clearwater Lake	10-15 Experimental Gill Nets	Population Status, Growth Rates, Condition, Habitat Use	Entire Lake	Aug-Oct.	Rod Berg	1	N	0	0	Y
Clearwater	Lake Alva	10-15 Experimental Gill Nets	Population Status, Growth Rates, Condition, Habitat Use	Entire Lake	Sept-Oct.	Rod Berg	6	N	0	0	Y
Clearwater	Lake Inez	10-15 Experimental Gill Nets	Population Status, Growth Rates, Condition, Habitat Use	Entire Lake	Sept-Oct.	Rod Berg	4	N	0	0	Y
Clearwater	Marshall Lake	10-15 Experimental Gill Nets	Population Status, Growth Rates, Condition, Habitat Use	Entire Lake	Aug-Oct.	Rod Berg	2	N	0	0	Y
Clearwater	Placid Lake	10-15 Experimental Gill Nets	Population Status, Growth Rates, Condition, Habitat Use	Entire Lake	Sept-Oct.	Rod Berg	4	Y	1	1	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT Handled	Actual Mort.	Do in 2005 ?
Clearwater	Rainy Lake	10-15 Experimental Gill Nets	Population Status, Growth Rates, Condition, Habitat Use	Entire Lake	Aug-Oct.	Rod Berg	10	N	0	0	Y
Clearwater	Salmon Lake	10-15 Experimental Gill Nets	Population Status, Growth Rates, Condition, Habitat Use	Entire Lake	Sept-Oct.	Rod Berg	1	N	0	0	Y
Clearwater	Seeley Lake	10-15 Experimental Gill Nets	Population Status, Growth Rates, Condition, Habitat Use	Entire Lake	Sept-Oct.	Rod Berg	10	N	0	0	Y
Flathead	Flathead Lake	Gillnetting	Fish Community Assessment	Lakewide	Apr-Nov	Mark Deleray	20	Y	30	15	Y
Flathead (South Fk)	Hungry Horse Reservoir	Fall Gillnetting	Population Monitoring and Assessment	Lake-wide	Oct	Grant Grisak	59 *see methods	Y	90	55	Y
Kootenai	Bull Lake	Gillnetting	Kokanee Assessment	Lake-wide	Oct	Mike Hensler	15	Y	9	5	Y
Kootenai	Glen Lake	Gillnetting	Kokanee Assessment	Lakewide	Oct	Mike Hensler	4	Y	2	2	Y
Kootenai	Lake Koocanusa	Gillnetting	Population Assessment	Lakewide	May-Sept	Jim Dunnigan Ryan Sylvester	70	Y	93	53	Y
Rock Creek	EF Rock Creek Reservoir	Gillnetting	Population Assessment	Lakewide	May-Sept	Rod Berg	10	--	--	--	Y
Swan	Swan Lake	Gillnetting	Fish Community Assessment	Lakewide	Spring /late summer	Scott Rumsey	14	Y	41	35	Y
Whitefish	Whitefish Lake	Gillnetting	Fish Community Assessment	Lakewide	May and Oct	Mark Deleray	5	N	0	0	Y

Electrofishing

The determination of presence/absence, and estimation of fish population abundance is regularly conducted using electrofishing techniques. Electrofishing monitoring focuses on quantifying yearly variation of fish abundance in stream sections sampled consistently year after year and to provide valuable information on species abundance, presence, size and age structure, movements, and status. It is also done in other areas to monitor response of bull trout to restoration projects, to collect tissue for genetic analysis, and to capture bull trout for tagging and telemetry purposes. Across the state, equipment and methodologies vary to match water characteristics and target species. Electroshocking is done using backpack shockers in smaller streams, and boat or barge shockers in larger rivers. All electroshocking is done by qualified personnel according to MFWP electroshocking guidelines.

It is the policy of the MFWP that all electrofishing conducted in the waters of the State of Montana conform to the following standards to minimize injury to aquatic life. This policy shall apply to employees of MFWP, other state and federal agencies, and those entities operating under the authority of a collector's permit issued by MFWP. The only exceptions to this policy are for permanent collections where all fish sampled are killed, or for experimental purposes. The standards are:

1. Each electrofishing effort should be preceded by an analysis weighing anticipated negative impacts on aquatic life against benefits to be gained from the data collected. Other methods of data collection should be considered in this analysis.

2. Electrofishing over spawning areas containing eggs or larvae will be conducted only when eggs are needed for government hatcheries or the data to be collected are critical to the well being of the fish population as determined by the regional fisheries manager.

3. The use of electrofishing gear in waters containing Species of Special Concern should be minimized. Prior approval must be given by the regional fisheries manager before electrofishing in these waters.

4. Electrofishing in areas where threatened or endangered aquatic species may be encountered is restricted to situations in which electrofishing gear and methodology have been shown to be of minimal impact to that species or a recovery team has determined that electrofishing will be in the best interest of the threatened or endangered species.

5. Electrofishing units which produce only 60 HZ pulsed DC waveforms are prohibited (e.g. Coffelt VVP2C, VVP2E, etc.). Setting on units that provide rectified sine, capacitor discharge or AC waveforms may not be used.

6. Settings on electrofishing units that produce pulse rates in excess of 30 HZ per second are not allowed in waters containing self-sustaining salmonid populations. The use of higher pulse rates for collection of warm/coolwater species should occur only after consideration has been given to the effect of this electrical form on these species and prior approval has

been received from the regional fisheries manager.

More detailed discussion of methodologies can be found in previous Annual Section 6 Reports submitted by MFWP.

Table 2. Summary of electrofishing activities in bull trout habitat that will be undertaken by Montana Department of Fish, Wildlife and Parks.

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Bitterroot	Bitterroot	Electrofishing	Population Assessment/species composition	6 miles (two 3-mi. sections	Septemb er	Chris Clancy	<5%	Y	3	0	Y
Bitterroot	Daly Creek	Electrofishing	Population assessment	1000'	July-Aug	Chris Clancy	<5%	N	0	0	N
Bitterroot	E. Fk. Bitterroot	Electrofishing	Population assessment	1000'	July-Aug	Chris Clancy	<5%	N	0	0	N
Bitterroot	Lolo Creek + tribs	Backpack Electrofishing	Fish population monitoring and bull trout and WCT genetics sampling	>1000'	July-Sep	Ladd Knotek	<5%	Y	20	0	Y
Bitterroot	Meadow Creek	Electrofishing	Population assessment	1000'	July-Aug	Chris Clancy	<5%	Y	27	0	N
Bitterroot	Miller Creek	Backpack Electrofishing	Fish population monitoring and WCT genetics sampling	1000'	July-Sep	Ladd Knotek	<5%	N	0	0	Y
Bitterroot	Moose Creek	Electrofishing	Population assessment	1000'	July-Aug	Chris Clancy	<5%	N	0	0	N
Bitterroot	Nez Perce Creek	Electrofishing	Population assessment	1000'	July-Aug	Chris Clancy	<5%	N	0	0	N
Bitterroot	Skalkaho Creek	Electrofishing	Population assessment	Three 1000' reaches	July-Aug	Chris Clancy	<5%	Y	55	0	Y
Bitterroot	Sleeping Child Creek	Electrofishing	Population Assessment	1000'	July-Aug	Chris Clancy	<5%	Y	8	0	Y
Bitterroot	Swift Creek	Electrofishing	Population assessment	1000'	July-Aug	Chris Clancy	<5%	N	0	0	N
Bitterroot	Two Bear Creek	Electrofishing	Population assessment	1000'	July-Aug	Chris Clancy	<5%	N	0	0	N
Bitterroot	Upper E. Fk. Bitterroot	Electrofishing	Population assessment	1000'	July-Aug	Chris Clancy	<5%	N	0	0	N
Bitterroot	Warm Spring Creek	Electrofishing	Population assessment	1000'	July-Aug	Chris Clancy	<5%	Y	3	0	N

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Blackfoot	Arrastra Creek	Backpack Electrofishing	Assess populations	800	July-Sept	Ron Pierce	<1	Y	2	0	Y
Blackfoot	Bear Creek	Electrofishing	Monitoring habitat restoration responses	800'	August	Ron Pierce	≤1	Y	0	0	N
Blackfoot	Blackfoot River	Backpack Electrofishing	Move bull trout stranded in intermittent reaches of the Blackfoot River	3000	Oct. 2005	Ron Pierce Laura Burns	<1	N	0	0	Y
Blackfoot	Blanchard Creek	Electrofishing	Monitoring water lease	400'	August	Ron Pierce	≤1	N	0	0	N
Blackfoot	Cabin Creek	Backpack Electrofishing	Assess populations, genetic samples	3700	July-Sept	Ron Pierce	<1	Y	5	0	Y
Blackfoot	Chamberlain Creek	Backpack Electrofishing	Monitoring habitat restoration and water lease responses	1000' (4 sect.)	Sep	Ron Pierce	≤1	Y	0	0	N
Blackfoot	Copper Creek	Backpack Electrofishing	Assess populations	1800	July-Sept	Ron Pierce	<1	Y	35	0	Y
Blackfoot	Cottonwood Creek	Backpack Electrofishing	Monitor water lease and habitat restoration; wct and bull trout genetic sampling	1000'	Sep	Ron Pierce	≤1	Y	3	0	Y
Blackfoot	Dunham Creek	Backpack Electrofishing	Fish monitoring in habitat restoration project area; Wct genetic sample collection	400'	July-Sep	Ron Pierce	≤1	Y	75	0	Y
Blackfoot	Gold Creek	Backpack Electrofishing	Fish monitoring in habitat restoration project area; wct and bull trout genetic sample collection	1000'	August	Ron Pierce	≤1	Y	1	0	N
Blackfoot	Hoyt Creek	Backpack Electrofishing	Assess populations	1000	July-Sept 2005	Ron Pierce	<1	N	0	0	Y
Blackfoot	Jacobsen Spring Creek	Backpack Electrofishing	Assess populations	2200	June	Ron Pierce	<1	Y	0	0	Y
Blackfoot	Keep Cool Creek	Backpack Electrofishing	Assess populations	100	July-Sept	Ron Pierce	<1	Y	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Blackfoot	Kleinschmidt Creek	Electrofishing	Assess Fish Population	1000'	Jul-Sept	Ron Pierce	0	Y	1	0	N
Blackfoot	Lincoln Spring Creek	Backpack Electrofishing	Assess populations	800	July-Sept	Ron Pierce	<1	Y	0	0	Y
Blackfoot	McCabe Creek	Backpack Electrofishing	Fish monitoring in restoration project area	1500'	July	Ron Pierce	≤1	Y	0	0	N
Blackfoot	McDermott Creek	Electrofishing	Population Survey	1500'	July	Ron Pierce	0	N	0	0	N
Blackfoot	Monture Creek	Backpack Electrofishing	Juvenile bull trout monitoring/fish monitoring in habitat restoration project areas; wct genetic sample collection	2200' (5 sections)	August	Ron Pierce	≤1	N	0	0	N
Blackfoot	Nevada Spring Creek	Backpack Electrofishing	Pre habitat restoration fish populaltion monitoring	1500'	July	Ron Pierce	≤1	Y	1	0	N
Blackfoot	North Fork	Boom-mounted drift boat electrofishing Fin Clips	Fish monitoring in habitat restoration project areas/fin clips for genetic analysis	20,430'	August	Ron Pierce	3	N	0	0	N
Blackfoot	North Fork Blackfoot River	Backpack Electrofishing	Fish monitoring in habitat restoration project areas	2200' (4 Sections)	August	Ron Pierce	≤1	N	0	0	N
Blackfoot	North Fork Blackfoot River	Backpack Electrofishing	Assess populations in wilderness areas	550	July-Sept	Ron Pierce	<1	Y	14	0	Y
Blackfoot	North Fork of Arrastra Creek	Backpack Electrofishing	Fish species composition and distribution above the existing barrier culvert	Up to 5 300 foot sample reaches	July or August	Ron Pierce Lauara Burns	0	--	--	--	Y
Blackfoot	Pearson Creek	Backpack Electrofishing	Fish monitoring in habitat restoration project area	400	July-Sept	Ron Pierce	<1	Y	0	0	Y
Blackfoot	Poorman Creek	Backpack electrofishing	Fish monitoring in habitat restoration project area	800	July-Sept	Ron Pierce	<1	Y	0	0	Y
Blackfoot	Rock Creek	Backpack Electrofishing	Fish population monitoring	800'	August	Ron Pierce	≤1	Y	0	0	Y
Blackfoot	Shanley Creek	Backpack Electrofishing	Identify fish restoration opportunities	800'	August	Ron Pierce	≤1	N	0	0	N

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Blackfoot	Snowbank Creek	Backpack electrofishing	Assess populations	450	July-Sept	Ron Pierce	<1	Y	2	0	Y
Blackfoot	South Fork Poorman Creek	Backpack Electrofishing	Evaulation to determine extent of upstream invasion by brook trout and to further refine distribution of bull trout	Up to 5 300 foot reaches	July or August	Ron Pierce Lauara Burns	0	--	--	--	Y
Blackfoot	Warren Creek	Boom-mounted drift boat electrofishing	Fish Population Monitoring of Restoration Project	1000'	July	Ron Pierce	<1	Y	0	0	Y
Blackfoot	Wasson Creek	Backpack electrofishing	Fish monitoring in habitat restoration project area	800	July-Sept	Ron Pierce	<1	Y	0	0	Y
Clark Fork (Lower)	Below Thompson Falls Dam	Electrofishing	Mark fish to determine trap effectiveness	<1km	Mar-April	Laura Katzman Jay Stuckey	≤1	Y	4	0	Y
Clark Fork (Lower)	Thompson Falls Reservoir	Electrofishing	Monitor/investigate N. Pike	Res.-wide	Mar & Oct	Laura Katzman Jay Stuckey	≤1	N	0	0	Y
Clark Fork (Lower)	Beaver Creek	Electrofishing	Disease sampling	<0.5 km	July-Aug	Brad Liermann	≤1	Y	0	0	N
Clark Fork (Lower)	Cooper Gulch	Electrofishing	Monitor fish populations and habitat restoration	300 m	July-Aug	Brad Liermann	≤1	N	0	0	Y
Clark Fork (Lower)	Crow Creek	Electrofishing	Fish Genetics/Population Estimate	2 km	Jul-Oct	Brad Liermann	≤1	N	0	0	Y
Clark Fork (Lower)	E, N &S. Fks. Bull River, Copper Cr.	Electrofishing	Population Estimate Disease sampling Monitor fish populatons and habitat restoration areas	<0.5 km each	Jul-Aug	Brad Liermann	≤1	East and South forks only	91	0	Y
Clark Fork (Lower)	E. & W. Fks. Rock Creek	Electrofishing	Population Estimate Monitor fish populations and habitat restoration areas	<0.5 km each	Jul-Aug	Brad Liermann	≤1	EF only	32	0	Y
Clark Fork (Lower)	Elk Creek	Electrofishing	Monitor habitat restoration	300 m	July-Aug	Brad Liermann	≤1	N	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Clark Fork (Lower)	Jungle Creek	Electrofishing	Monitor restoration/population estimate	<0..5km	July-Aug	Brad Liermann	≤1	Y	7	0	Y
Clark Fork (Lower)	Pilgrim Creek	Electrofishing	Monitor habitat restoration	500 m	July-Aug	Brad Liermann	≤1	N	0	0	Y
Clark Fork (Lower)	Prospect Creek	Electrofishing	Monitor Fish Population, Disease sampling habitat restoration, and genetics	<2 km	Jul-Aug	Brad Liermann	≤1	Y	80	4	Y
Clark Fork (Lower)	Thompson River	Electrofishing	Monitor Fish Population Disease sampling	6 km	June-Aug	Laura Katzman Brad Liermann Jay Stuckey	≤1	Y	13	0	Y
Clark Fork (Lower)	Vermillion River	Electrofishing	Monitor Fish Population and Fish Genetics Disease sampling	<0.5 km	Jul-Aug	Brad Liermann	≤1	Y	63	5	Y
Clark Fork (Lower)	WF Thompson River, Fishtrap Cr.	Electrofishing	Monitor Fish Population and genetics Disease sampling	<0.5 km each	Jul-Aug	Laura Katzman Brad Liermann Jay Stuckey	≤1	Y	34	0	Y
Clark Fork (Middle)	Albert Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	Y	24	0	Y
Clark Fork (Middle)	Big Flat Irrigation Canal	Electrofishing & trapping	Salvage entrained fish and return to mainstem river "Operation Bull Trout Freedom"	1 mile	May-October	Ladd Knotek	0	Y	0	0	Y
Clark Fork (Middle)	Cedar Creek + tribs	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Clark Fork	Jet boat Electrofishing	Monitoring Clark Fork River fish populations	20,000'	April-June	David Schmetterling Ladd Knotek	≤1	Y	2	0	Y
Clark Fork (Middle)	Clark Fork	Jet boat Electrofishing	Monitoring Clark Fork River fish populations	25,000'	Aug-Oct	David Schmetterling Ladd Knotek	≤1	Y	5	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Clark Fork (Middle)	Crystal Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Deep Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Deer Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Dry Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	First Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Flat Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Frenchtown Grass Valley Irrigation Canal	Electrofishing & trapping	Salvage entrained fish and return to mainstem river "Operation Bull Trout Freedom"	1 mile	May-October	Ladd Knotek	0	Y	0	0	Y
Clark Fork (Middle)	Frenchtown Irrigation Canal	Electrofishing & trapping	Salvage entrained fish and return to mainstem river "Operation Bull Trout Freedom"	1 mile	May-October	Ladd Knotek	0	Y	0	0	Y
Clark Fork (Middle)	Grant Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Hellgate Irrigation Canal	Electrofishing & trapping	Salvage entrained fish and return to mainstem river "Operation Bull Trout Freedom"	1 mile	May-October	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Johnson Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Clark Fork (Middle)	Marshall Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	Y	0	0	Y
Clark Fork (Middle)	Mill Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Missoula Valley Irrigation Canal	Electrofishing & trapping	Salvage entrained fish and return to mainstem river "Operation Bull Trout Freedom"	1 mile	May-October	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Nemote Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Ninemile Creek + Tributaries	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	O'Keefe Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Orchard Homes Irrigation Canal	Electrofishing & trapping	Salvage entrained fish and return to mainstem river "Operation Bull Trout Freedom"	1 mile	May-October	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Petty Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Quartz Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Roman Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Second Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Clark Fork (Middle)	Siegel Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Sixmile Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	St. Regis River	Electrofishing	Disease sampling	500 m	July-Aug	Laura Katzman Jay Stuckey	≤1	Y	0	0	N
Clark Fork (Middle)	St. Regis River and Tributaries	Backpack Electroshocking	Species composition and cutthroat genetics sampling	>1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Tamarack Creek	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	N	0	0	Y
Clark Fork (Middle)	Trout Creek + tribs	Backpack Electroshocking	Species composition and cutthroat genetics sampling	1000'	July-Sep	Ladd Knotek	≤1	Y	7	0	Y
Clark Fork (Upper)	Clark Fork - Milltown Dam area	Backpack Electrofishing	Monitoring fish movements around Milltown Dam	Radial gate pool	3 days/wk 3/1-12/1	David Schmetterling	0	Y	5	0	Y
Clark Fork (Upper)	Fish Creek	Backpack Electroshocking	Monitor fish populations in response to habitat restoration	2,000'	July	Ladd Knotek	≤1	Y	81	0	Y
Clark Fork (Upper)	Harvey Creek (near mouth of Bearmouth)	Five 150-meter electroshocking transects-3 pass removal method	Population Assessment	750 m	July 1998	Eric Reiland	≤1	Y	1	0	N
Clark Fork (Upper)	Lost Creek	Backpack Electrofishing	Population estimate and Monitoring	150 meters 4 sections	July	Eric Reiland	≤1	Y	0	0	N
Clark Fork (Upper)	Mill Creek	Backpack Electrofishing	Population estimate and Monitoring	150 meters 2 sections	July	Eric Reiland	≤1	Y	0	0	N
Clark Fork (Upper)	Rattlesnake Creek	Backpack Electroshocking	Monitor fish populations; collect wct genetic samples	2,000'	August	Ladd Knotek	≤1	N	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Clark Fork (Upper)	Warm Springs Creek	Backpack Electrofishing	Population estimate and Monitoring	150 meters 2 sections	July	Eric Reiland	≤1	Y	2	0	N
Clark Fork (Upper)	Willow Creek Upper	Backpack Electrofishing	Population estimate and Monitoring	150 meters 2 sections	July	Eric Reiland	≤1	Y	0	0	N
Flathead (Mid Fork)	Bear Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	N	0	0	N
Flathead (Mid Fork)	Granite Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	101	0	Y
Flathead (Mid Fork)	Morrison Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	22	0	Y
Flathead (Mid Fork)	Ole Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	N	0	0	Y
Flathead (North Fk)	South Coal Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	43	0	Y
Flathead (North Fk)	Big Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	58	0	Y
Flathead (North Fk)	Coal Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	10	0	Y
Flathead (North Fk)	N. Coal Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	10	0	Y
Flathead (North Fk)	Red Meadow Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	5	0	Y
Flathead (North Fk)	Whale Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	51	0	Y
Flathead (South Fk)	Wounded Buck Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	N	0	0	Y
Flathead Lake Trib.	Dayton Creek	Electrofishing	Species Comp, Population Estimate/Assessment	150 m	Jul-Oct	Grant Grisak	≤1	N	0	0	N
Flathead River (Main Stem)	Flathead River near Columbia Falls	Electrofishing	WCT Genetics Survey, Species Comp, Population Estimate/Assessment	3 km	Feb-Mar	Clint Muhlfeld	≤1	Y	8	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Flint Creek (Trib. To Upper Clark Fork)	Douglas Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	Y	0	0	N
Flint Creek (Trib. To Upper Clark Fork)	N.F. Lower Willow Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	Y	0	0	N
Flint Creek (Trib. To Upper Clark Fork)	S.F. Lower Willow Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	Y	0	0	N
Flint Creek (Trib. To Upper Clark Fork)	Sawmill Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	Y	0	0	N
Kootenai	Bear Creek	Electrofishing	Juvenile Population Assessment	150 m	Jul-Oct	Mike Hensler	≤1	Y	44	0	Y
Kootenai	Bear Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Big Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Bobtail Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Boulder Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Burnt Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Callahan Creek	Electrofishing	Juvenile Population Assessment	150 m	Jul-Oct	Mike Hensler	≤1	Y	55	0	Y
Kootenai	Callahan Creek (all forks and tributaries)	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Canyon Creek (all forks and tributaries)	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Cedar Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Kootenai	Cripple Horse Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Dodge Creek (all forks and tributaries)	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Dunn Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Fisher River (all forks and tributaries)	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Fivemile Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Glenn Lake Irrigation Canal	Electrofishing Trapping	Diversion Assessment	Beginning to Glen Lake	Jul-Oct	Mike Hensler	≤1	N	0	0	Y
Kootenai	Grave Creek	Electrofishing	Juvenile Population Assessment to assess effectiveness of habitat restoration project.	150 m	Jul-Oct	Jim Dunnigan	≤1	Y	71	0	Y
Kootenai	Grave Creek	Electrofishing	Juvenile Population Assessment	150 m	Jul-Oct	Mike Hensler	≤1	Y	156	3	Y
Kootenai	Grave Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Keeler Creek	Electrofishing	Juvenile Population Assessment	150 m	Jul-Oct	Mike Hensler	≤1	Y	70	0	Y
Kootenai	Keeler Creek (all forks and tributaries)	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Kootenai River	Electrofishing, Radio Transmitter Insertion	Population Assessment and Radio Tracking	Dam to State Line	Jul-Oct	Mike Hensler	≤2	Y	299	3	Y
Kootenai	Kootenai River	Electrofishing	Population Assessment and Migration Assessment	Libby Dam to Idaho border	July-Oct.	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Lake Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Kootenai	Libby Creek	Electrofishing and Trapping	Juvenile Population Assessment	2 sections, 300 m each	Jul-Oct	Jim Dunnigan	≤1	Y	11	0	Y
Kootenai	Libby Creek above Libby Falls	Electrofishing	Population Assessment	150 m	Jul-Oct	Mike Hensler	≤ 1	N	0	0	Y
Kootenai	Libby Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Meadow Creek (all forks and tributaries)	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	O'Brien	Electrofishing	Juvenile Population Estimate	150 m	July-Oct	Mike Hensler	≤1	Y	45	0	Y
Kootenai	O'brien Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Parmenter Creek	Electrofishing	Juvenile Population Assessment to assess effectiveness of habitat restoration project.	150 m	Jul-Oct	Jim Dunnigan	≤1	N	0	0	Y
Kootenai	Parmenter Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Pine Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Pipe Creek	Electrofishing	Juvenile Population Assessment	150 m	Jul-Oct	Mike Hensler	≤1	Y	27	0	Y
Kootenai	Pipe Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Quartz Creek (all forks and tributaries)	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Seventeenmile Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Silver Butte Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Kootenai	Star Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Sullivan Creek and tribuatries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Therriault Creek	Electrofishing	Juvenile Population Assessment to assess effectiveness of habitat restoration project.	150 m	Jul-Oct	Jim Dunnigan	≤1	Y	17	0	Y
Kootenai	Therriault Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Tobacco Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	W.F. Quartz Creek	Electrofishing	Juvenile Population Assessment	150 m	Jul-Oct	Mike Hensler	≤1	Y	74	0	Y
Kootenai	Warland Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	West Fisher Creek	Electrofishing	Population Assessment	150 m	Jul-Oct	Mike Hensler	≤1	Y	5	0	Y
Kootenai	Yaak River and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Young Creek	Electrofishing	Juvenile Population Assessment to assess effectiveness of habitat restoration project.	150 m	Jul-Oct	Jim Dunnigan	≤1	Y	3	0	Y
Kootenai	Young Creek and tributaries	Electrofishing	Population Assessment and Migration Assessment	Entire stream	June-Oct	Ryan Sylvester	≤1	--	--	--	Y
Rock Creek	Rock Creek	Boom elctrofisher	Population monitoring	4 miles	April	Ron Pierce	<1	Y	15	0	N
Rock Creek (Trib. To Upper Clark Fork)	EF Rock Creek	Electrofish	Population Assessment	up to 1 mile	Summer	Rod Berg	0	--	--	--	Y
Rock Creek (Trib. To Upper Clark Fork)	Elk Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	Y	0	0	N

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Rock Creek (Trib. To Upper Clark Fork)	Meadow Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	Y	2	0	N
Rock Creek (Trib. To Upper Clark Fork)	Moose Meadow Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	Y	2	0	N
Rock Creek (Trib. To Upper Clark Fork)	Upper Willow Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	N	0	0	N
Stillwater	Stillwater River	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	129	1	Y
Swan	Elk Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	N	0	0	Y
Swan	Goat Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	38	0	Y
Swan	Lion Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	57	0	Y
Swan	Squeezer Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	36	0	Y
Swan	Swan River	Electrofishing	Fish Community Assessment	5 mi.	Summer	Scott Rumsey	≤1	Y	6	0	Y
Swan	Woodward Creek	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Scott Rumsey	≤1	N	0	0	
Warm Springs Creek (Trib. To Upper Clark Fork)	Foster Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	Y	0	0	N
Warm Springs Creek (Trib. To Upper Clark Fork)	Warm Springs Creek	Two electroshocking tansects-3- pass removal method	Population Assessment	150 m	July	Eric Reiland Darek Elverud	0	Y	4	0	N
Whitefish	Swift Creek (W. Fork)	Electrofishing	Abundance Monitoring	150 m	Aug-Sept	Tom Weaver	≤1	Y	10	0	Y

Streambed Coring/Substrate Composition

Successful incubation and fry emergence are dependent on gravel composition, gravel permeability, water temperature, and surface flow conditions. Redds become less suitable for incubating embryos if fine sediments and organic materials are deposited in interstitial spaces of the gravel during the incubation period.

Hollow core sampling permits the measurements of the size range of materials in the streambed that are indicative of spawning and incubation habitat quality. The most significant parameter is percent fines in a given spawning area.

Field crews use a standard 15.2-cm hollow core sampler to collect four samples across each of three transects at each study area. Study areas are selected based on observations of natural spawning.

More detailed discussion of methodologies can be found in previous Annual Section 6 Reports submitted by MFWP.

Table 3. Summary of streambed coring and substrate scoring activities in bull trout habitat that will be undertaken by Montana Department of Fish, Wildlife and Parks.

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	No. BT handled	Do in 2005?
Blackfoot River	Blackfoot River	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 - 9 cores	Summer	Laura Burns (USFS)	0	Y	0	0	Will report under Section 7 proced ures
Blackfoot River	Copper Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 cores at four sites	Summer	Laura Burns (USFS)	0	Y	0	0	Will report under Section 7 proced ures
Blackfoot River	Cottonwood Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 cores	Fall	Ron Pierce	0	Y	0	0	N
Blackfoot River	Dunham Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 cores	Fall	Ron Pierce	0	Y	0	0	N
Blackfoot River	Dunham Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 cores	Fall	Ron Pierce	0	Y	0	0	N
Blackfoot River	Gold Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 cores	Fall	Ron Pierce	0	Y	0	0	N
Blackfoot River	Monture Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 cores at two sites	Fall	Ron Pierce	0	Y	0	0	N
Blackfoot River	Nevada Spring Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 cores	Fall	Ron Pierce	0	Y	0	0	N

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	No. BT handled	Do in 2005?
Blackfoot River	Poorman Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Monitor timbersale effects	6-12 cores	Summer	Laura Burns (USFS)	0	Y	0	0	Will report under Section 7 proced ures
Blackfoot River	Rock Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 cores	Fall	Ron Pierce	0	Y	0	0	N
Blackfoot River	Snowbank Creek	Substrate Core Sampling	Identify fine sediment levels in spawning gravels - Evaluation of all effects on sediments in watershed	6 cores at two sites	Summer	Laura Burns (USFS)	0	Y	0	0	Will report under Section 7 proced ures
Flathead (Mid Fork)	Granite Creek	Core Sampling/Sub Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Flathead (North Fk)	Big Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Flathead (North Fk)	Coal Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Flathead (North Fk)	Cyclone Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Flathead (North Fk)	Trail Creek	Core Sampling	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Flathead (North Fk)	Whale Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Flathead (South Fk)	Wounded Buck Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/Sept	Tom Weaver	0	Y	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	No. BT handled	Do in 2005?
Kootenai	Bear Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Mike Hensler	0	Y	0	0	Y
Kootenai	Callahan Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Mike Hensler	0	Y	0	0	Y
Kootenai	Grave Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Mike Hensler	0	Y	0	0	Y
Kootenai	Keeler Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Mike Hensler	0	Y	0	0	Y
Kootenai	O'Brien Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Mike Hensler	0	Y	0	0	Y
Kootenai	Pipe Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Mike Hensler	0	Y	0	0	Y
Kootenai	Quartz Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Mike Hensler	0	Y	0	0	Y
Kootenai	Wigwam River	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Mike Hensler	0	Y	0	0	Y
Stillwater	Stillwater River	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Swan	Elk Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Swan	Goat Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Swan	Jim Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Swan	Lion Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Swan	Lost Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Swan	S. Woodward Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	N
Swan	Soup Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	No. BT handled	Do in 2005?
Swan	Squeezer Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	Y
Swan	Woodward Creek	Core Sampling/ Substrate Score	Habitat Quality Index	150 m	Mar-Apr/ Sept	Tom Weaver	0	Y	0	0	N

Redd Counts

A reliable census of annual spawner escapement is a valuable element of any fisheries monitoring program. These data are frequently used as measures of anticipated production in succeeding generations. They also provide an index of success in regulating the fishery. Redd Counts provide a repeatable way to estimate annual spawner escapement.

Timing of final redd counts is critical, because as redds age, they lose the characteristic "cleaned" or "bright" appearance becoming more difficult to identify. Experienced field crews conduct surveys by walking the channel within spawning areas. They visually identify redds by the presence of a pit or depression and associated tail area of disturbed gravel. If timing is proper, identification of redds presents little problem. We classify redds based on the following criteria:

1. Definite - no doubt. The area is definitely "cleaned" and or pit and tail area are recognizable. Not in an area typically cleaned by stream hydraulics.

2. Probable - an area cleaned that may be due to stream hydraulics but a pit and tail are recognizable, or an area that does not appear clean but has a definite pit and tail.

Both classes of redds are included in the final totals, which are compared annually as an index of spawner escapement. A Montana Bull Trout Redd Survey Manual describing procedures for conducting redd surveys is attached (Spalding 1997)

More detailed discussion of methodologies can be found in previous Annual Section 6 Reports submitted by MFWP.

A summary of redd count data appears is appended to the end of this report.

Table 4. Summary of redd count activities in bull trout habitat that will be undertaken by Montana Department of Fish, Wildlife and Parks.

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort	Comp leted?	No. BT handled	Actual Mort.	Do in 2005 ?
Blackfoot River	Copper Creek	Redd Counts	Long-term Population Monitoring	6 miles	Fall	Laura Burns Len Walch (USFS)	0	Y	0	0	Y
Blackfoot River	Dunham Creek	Redd Counts	Long-term Population Monitoring	2 miles	Fall	Ron Pierce	0	Y	0	0	Y
Blackfoot River	Gold Creek	Redd Counts	Long-term Population Monitoring	2 miles	Fall	Ron Pierce	0	Y	0	0	Y
Blackfoot River	Monture Creek	Redd Counts	Long-term Population Monitoring	3 miles	Fall	Ron Pierce	0	Y	0	0	Y
Blackfoot River	Morrel Creek	Redd Counts	Long-term Population Monitoring	4 miles	Sept-Oct	Ladd Knotek	0	Y	0	0	Y
Blackfoot River	North Fork	Redd Counts	Long-term Population Monitoring		Fall	David Schmetterling Ron Pierce	0	Y	0	0	Y
Clark Fork (Lower)	Bull River drainage	Redd Counts	Long-term Population Monitoring	40 km	Sept-Nov	Laura Katzman	0	N	0	0	Y
Clark Fork (Lower)	Fish Trap Creek drainage	Redd Counts	Long-term Population Monitoring	10 km	Aug-Nv	Laura Katzman	0	Y	0	0	Y
Clark Fork (Lower)	Graves Creek	Redd Counts	Long-term Population Monitoring	5 km	Aug-Nv	Laura Katzman	0	Y	0	0	Y
Clark Fork (Lower)	Prospect Creek	Redd Counts	Long-term Population Monitoring	20 km	Aug-Nov	Laura Katzman	0	Y	0	0	Y
Clark Fork (Lower)	Vermillion River	Redd Counts	Long-term Population Monitoring	20 km	Aug-Nov	Laura Katzman	0	N	0	0	Y
Clark Fork (Lower)	W. Fk. Thompson Riv	Redd Counts	Long-term Population Monitoring	10 km	Aug-Nov	Laura Katzman	0	Y	0	0	Y
Clark Fork (Lower)	Whitepine Creek	Redd Counts	Long-term Population Monitoring	5 km	Aug-Nov	Laura Katzman	0	N	0	0	Y
Clark Fork (Middle)	Cedar Creek	Redd Counts	Fluvial adult population estimates	2-4 miles	Sept-Nov	Ladd Knotek	0	Y	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort	Comp leted?	No. BT handled	Actual Mort.	Do in 2005 ?
Clark Fork (Middle)	Fish Creek	Redd Counts	Fluvial adult population estimates	6-10 miles	Sept-Nov	Ladd Knotek	0	Y	0	0	Y
Clark Fork (Middle)	Rattlesnake creek	Redd Counts	Fluvial adult population estimates	5-7 miles	Sept-Nov	Ladd Knotek	0	Y	0	0	Y
Clark Fork (Middle)	St. Regis River	Redd Counts	Fluvial adult population estimates	2-4 miles	Sept-Nov	Ladd Knotek	0	Y	0	0	Y
Clark Fork (Middle)	Trout Creek	Redd Counts	Fluvial adult population estimates	2-4 miles	Sept-Nov	Ladd Knotek	0	N	0	0	Y
Flathead (Mid Fork)	Granite Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (Mid Fork)	Lodgepole Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (Mid Fork)	Morrison Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (Mid Fork)	Ole Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (North Fk)	Big Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (North Fk)	Coal Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (North Fk)	Cyclone Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (North Fk)	Frozen Creek/Lake	Redd Counts	Monitoring Populations	1 mi.	Oct-Nov	Tom Weaver	0	N	0	0	Y
Flathead (North Fk)	Trail Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (South Fk)	Gordon Creek	Redd Counts	Spawner Enhancement	Headwaters-Confluence	Oct	Tom Weaver	0	Y	0	0	N
Flathead (South Fk)	Little Salmon Creek	Redd Counts	Spawner Enhancement	Headwaters-Confluence	Oct	Tom Weaver	0	Y	0	0	N
Flathead (South Fk)	Quintonkin Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort	Comp leted?	No. BT handled	Actual Mort.	Do in 2005 ?
Flathead (South Fk)	Sullivan Creek	Redd Counts	Spawner Escapement	Mouth-Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (South Fk)	Wheeler Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (South Fk)	White River	Redd Counts	Spawner Enhancement	Headwaters-Confluence	Oct	Tom Weaver	0	Y	0	0	N
Flathead (South Fk)	Wounded Buck Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Flathead (South Fk)	Youngs Creek	Redd Counts	Spawner Escapement	Headwaters-Confluence	Oct	Tom Weaver	0	Y	0	0	N
Kootenai	Bear Creek	Redd Counts	Spawner Escapement	Headwaters-Confluence	Oct	Mike Hensler Jim Dunnigan	0	Y	0	0	Y
Kootenai	Blue Sky Creek	Redd Counts	Spawner Escapement	Headwaters-Confluence	Oct	Mike Hensler	0	Y	0	0	Y
Kootenai	Callahan Creek	Redd Counts	Spawner Escapement	Headwaters-Confluence	Oct	Mike Hensler	0	Y	0	0	Y
Kootenai	Clarence Creek	Redd Counts	Population Assessment	Headwaters-Confluence	Oct	Mike Hensler	0	Y	0	0	Y
Kootenai	Grave Creek and associated tributaries	Redd Counts	Spawner Escapement	Headwaters-Confluence	Oct	Mike Hensler	0	Y	0	0	Y
Kootenai	Keeler Creek and associated tributaries	Redd Counts	Spawner Escapement	Headwaters-Confluence	Oct	Mike Hensler	0	Y	0	0	Y
Kootenai	Libby Creek	Redd Counts	Spawner Escapement	Headwaters-Confluence	Oct	Mike Hensler	0	Y	0	0	Y
Kootenai	Pipe Creek and associated tributaries	Redd Counts	Spawner Escapement	Headwaters-Confluence	Oct	Mike Hensler	0	Y	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort	Comp leted?	No. BT handled	Actual Mort.	Do in 2005 ?
Kootenai	Quartz Creek and associated tributaries	Redd Counts	Spawner Escapement	Headwaters-Confluence	Oct	Mike Hensler	0	Y	0	0	Y
Kootenai	W.F. Fisher Creek	Redd Counts	Population Assessment	Headwaters-Confluence	Oct	Mike Hensler	0	Y	0	0	Y
Kootenai	Wigwam River	Redd Counts	Population Assessment	Headwaters to British Columbia Border	Oct	Mike Hensler	0	Y	0	0	Y
Little Blackfoot	Little Blackfoot	Redd Counts	Locate spawning reach	20 miles	Sept 2003	Len Walch Arcjie Harper (USFS)	0	N	0	0	Y, but report under section 7 rather than section 6
Stillwater	Fitzsimmons Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Tom Weaver	0	N	0	0	Y
Stillwater	Stillwater River	Redd Counts	Spawner Escapement	150 m	Aug-Sept	Tom Weaver	0	N	0	0	Y
Swan	Cold Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Scott Rumsey	0	N	0	0	N
Swan	Elk Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Scott Rumsey	0	Y	0	0	Y
Swan	Goat Creek	Redd Counts	Spawner Escapement	Mouth - Headwaters	Sept-Oct	Scott Rumsey	0	Y	0	0	Y
Swan	Holland Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Scott Rumsey	0	Y	0	0	Y
Swan	Jim Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Scott Rumsey	0	N	0	0	N

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort	Comp leted?	No. BT handled	Actual Mort.	Do in 2005 ?
Swan	Lion Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Scott Rumsey	0	Y	0	0	Y
Swan	Lost Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Scott Rumsey	0	Y	0	0	Y
Swan	Piper Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Scott Rumsey	0	N	0	0	N
Swan	Soup Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Scott Rumsey	0	Y	0	0	Y
Swan	Squeezer Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Scott Rumsey	0	Y	0	0	Y
Swan	Woodward Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Scott Rumsey	0	Y	0	0	Y
Whitefish	E. Fk. Swift Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Whitefish	Swift Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y
Whitefish	W Fk. Swift Creek	Redd Counts	Spawner Escapement	Mouth – Headwaters	Sept-Oct	Tom Weaver	0	Y	0	0	Y

Genetic Sampling

Montana Fish, Wildlife & Parks plans to collect genetic samples from representative populations throughout Montana. These populations are dispersed across northwestern Montana in the Kootenai, Flathead, Swan, and Clark Fork drainages. Thorough sampling will enable us to construct a dendogram of relatedness and uniqueness of populations in and between different drainages. This will assist managers to prioritize the most unique, and important populations. Sampling in the Clark Fork drainage will also be important in determining genetic relationships for conservation planning and passage decisions at Cabinet, Noxon, Thompson Falls, and Milltown dams. While conducting fish disease sampling for species other than bull trout, we may capture them incidentally. A small fin clip about the size of a paper hole punch, ideally from a rayed fin, will be collected. Bull trout will be returned immediately after obtaining the fin clip. Nuclear and/or mitochondrial DNA will be used to determine the genetic structure and variability of populations. Laboratory analysis will be conducted at the University of Montana Wild Trout and Salmon Genetics Lab. Bull trout will be captured using variety of collection methods. We will fit a collection method or a number of methods to suit each sample site.

More detailed discussion of methodologies can be found in previous Annual Section 6 Reports submitted by MFWP.

Table 5. Summary of genetic and micro-chemistry analysis activities in bull trout habitat that will be undertaken by Montana Department of Fish, Wildlife and Parks.

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Clark Fork (Middle)	Albert Creek	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Cedar Creek	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Clark Fork below Milltown Dam	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	David Schmetterling	0	N	0	0	N
Clark Fork (Middle)	Fish Creek	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Grant Creek	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Rattlesnake Creek	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	St. Regis River	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	St. Regis River	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Trout Creek	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	Ladd Knotek	0	N	0	0	Y
Flathead (South Fk.)	Doctor Lake	Fin Clip (30-50 fish)	Genetic Survey		Jul-Sept	Scott Rumsey	0	N	0	0	Y
Kootenai	Bear Creek	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	≤10	N	0	0	Y
Kootenai	Callahan Creek	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	≤10	N	0	0	Y
Kootenai	Callahan Creek	Fin Clip (30-50 fish)	Genetic Survey	Entire Stream	Jul-Sept	Mike Hensler	0	N	0	0	N
Kootenai	Callahan Creek	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	10	--	--	--	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Kootenai	Grave Creek	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	≤10	Y	12	12	Y
Kootenai	O'Brien Creek	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	≤10	N	0	0	Y
Kootenai	Pipe Creek	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	≤10	N	0	0	Y
Kootenai	Quartz Creek	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	≤10	N	0	0	Y
Kootenai	West Fisher Creek	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	≤10	N	0	0	Y
Kootenai	West Fisher Creek	Fin Clip (30-50 fish)	Genetic Survey	Entire Stream	Jul-Sept	Mike Hensler	0	N	0	0	Y
Kootenai	West Fisher Creek	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	10	--	--	--	Y
Kootenai	Wigwam River	Juvenile sacrifice to obtain otoliths	Natal Tributary Assessment	Entire Stream	Jul-Sept	Jim Dunnigan	≤10	N	0	0	Y

Radio Telemetry

Radio-telemetry is used to allow assessment of juvenile and sub-adult bull trout movements, distribution, and habitat use of bull trout.

Radio-transmitters are surgically implanted into the body cavity of captured bull trout. Fish are obtained by angling and electrofishing. Only fish that appear to be in good condition are selected for implantation. Radio implanted fish are monitored both from the ground and from the air.

More detailed discussion of methodologies can be found in previous Annual Section 6 Reports submitted by MFWP.

Table 6. Summary of radio telemetry activities in bull trout habitat that will be undertaken by Montana Department of Fish, Wildlife and Parks.

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort	Do in 2005?
Clark Fork (Lower)	Thompson Falls Dam (above and below)	Radio Telemetry	Determine migration, movements, and spawning area use	100 km	Year-round	Laura Katzman Jay Stuckey	≤2	Y	6	1	Y
Clark Fork (Middle)	Grant Creek	Radio Telemetry	Determine Migration, Spawning, Habitat Use, Timing		Year round	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Mainstem	Radio Telemetry	Migration, movements & Habitat Use	--	Year-round	Ladd Knotek	0	Y	6	0	Y
Clark Fork (Middle)	Rattkesnake Creek	Radio Telemetry	Determine Migration, Spawning, Habitat Use, Timing		Year round	Ladd Knotek	0	N	0	0	Y
Clark Fork (Upper)	Milltown Dam	Radio Telemetry	Determine migration, movements, and spawning area use		Spring-Fall 1999	David Schmetterling	0	Y	3	0	Y
Flathead	Flathead River	Radio Telemetry	Determine Habitat Use	85 km	Year-round	Clint Muhlfeld	≤3	N	0	0	Y
Flathead (Mid Fork)	Main Stem	Radio Telemetry	Determine Habitat Use	71 km	Year-round	Clint Muhlfeld	≤3	N	0	0	Y
Flathead (North Fk)	Main Stem	Radio Telemetry	Determine Habitat Use	93 km	Year-round	Clint Muhlfeld	≤3	N	0	0	Y
Flathead (North Fk)	Trail Creek	PIT Tagging and electrofishing	Determine survival and life history characteristics	6 miles	Fall and winter	Clint Muhlfeld	≤3	Y	250 juveniles	<2%	Y
Kootenai	Kootenai River	Radio Telemetry	Determine habitat use, and effects of dam operations	Kootenai Falls to Libby Dam	Year-round	Mike Hensler Jim Dunnigan Brian Marotz	≤3	N	0	0	Y
Kootenai	Kootenai River and tributaries	Radio Telemetry	Habitat use and movement	Idaho Border to Libby Dam and all tributaries	Year Round	Ryan Sylvester	≤3	--	--	--	Y

Snorkeling

Snorkeling is done by personnel to determine presence/absence in small streams, and often is done in conjunction with electrofishing to refine population estimates. Snorkeling is also useful to determine presence or absence of bull trout, size/age class, and numbers.

Snorkeling involves swimming on the surface with the current through pre-established transects. Species and size are recorded as the swimmer(s) descend a monitoring reach. It is the least stressful method of collection and provides for low to no mortality as compared to other methods of collection.

More detailed discussion of methodologies can be found in previous Annual Section 6 Reports submitted by MFWP.

Table 7. Summary of snorkeling activities in bull trout habitat that will be undertaken by Montana Department of Fish, Wildlife and Parks.

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	Do in 2005?
Clark Fork (Middle)	Fish Creek	Snorkeling	Population Assessment	40 km	Jul-Sept	Ladd Knotek	0	N	0	Y
Clark Fork (Middle)	Grant Creek	Snorkeling	Population Assessment	10 km	Jul-Sept	Ladd Knotek	0	N	0	Y
Clark Fork (Middle)	Main stem	Snorkeling	Population Assessment	100 km	Jul-Sept	Ladd Knotek	0	N	0	Y
Clark Fork (Middle)	Rattlesnake Creek	Snorkeling	Population Assessment	10 km	Jul-Sept	Ladd Knotek	0	Y	0	Y
Clark Fork (Middle)	St. Regis River	Snorkeling	Population Assessment	30 km	Jul-Sept	Ladd Knotek	0	N	0	Y
Flathead	Flathead River	Snorkeling	Population Assessment	30 km	Jul-Sept	Clint Muhlfeld	0	N	0	Y

Trapping and Tagging

Population information derived from trapping and tagging is used to determine the status of bull trout in a drainage, thus directing appropriate conservation measures. Trapping also occurs as part of whirling disease monitoring program, and bull trout may be incidentally captured. Captured bull trout are released, except in situations where they are specifically targeted as part of whirling disease studies on bull trout (see whirling disease section below). Trapping is also used as a method to remove introduced species such as brook trout from bull trout spawning areas. Bull trout are also trapped below dams for transportation around these migration barriers to reinstate upstream passage.

More detailed discussion of methodologies can be found in previous Annual Section 6 Reports submitted by MFWP.

Table 8. Summary of trapping/tagging activities in bull trout habitat that will be undertaken by Montana Department of Fish, Wildlife and Parks.

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Clark Fork (Lower)	Nxon Rerservoir	Trap netting	Fish community assessment and walleye life history investigation	Res. wide	Sept-Oct	Brad Liermann	<1	Y	5	0	N
Clark Fork (Lower)	Cabinet Gorge Reservoir	Merwin Trapping	Fish abundance monitoring	Two traps in Bull River Bay	Oct	Brad Liermann	≤1	N	0	0	Y
Clark Fork (Lower)	Nxon Reservoir	Merwin Trapping	Fish abundance monitoring	Two traps in each of Vermilio n and Marten Cr bays	Oct	Brad Liermann	<1	Y	1	0	N
Clark Fork (Lower)	Thompson Falls Dam	Trap and Provide Fish Passage Over Dam	Provide fish passage and determine migration movements and spawning areas	100km	Mar-Nov	Laura Katzman Jay Stuckey	≤1	Y	3	0	Y
Clark Fork (Middle)	Deer Creek	Trapping	Adult estimate and Outmigrant Estimates	NA	Spring/ Summer	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Grant Creek	Trapping/Tagging	Adult estimate (return)	NA	Spring/ Summer	Ladd Knotek	<1%	N	0	0	Y
Clark Fork (Middle)	Marshall Creek	Trapping	Adult estimate and Outmigrant Estimates	NA	Spring/ Summer	Ladd Knotek	0	N	0	0	Y
Clark Fork (Middle)	Rattlesnake Creek	Trapping/Tagging	Adult estimate and Outmigrant Estimates	NA	All year	Ladd Knotek	<1%	N	0	0	Y
Clark Fork (Upper)	Milltown Reservoir	Trapping	Monitor Northern Pike	Reservoi r-wide	March-May	David Schmetterling	0	Y	0	0	Y
Kootenai	Bear Creek	Trapping	Capture adults for radio telemetry	NA	April	Jim Dunnigan	1	N	0	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Kootenai	Bear Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Big Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Bobtail Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Boulder Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Burnt Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Callahan Creek (all forks and tributaries)	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Canyon Creek (all forks and tributaries)	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Cedar Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Cripple Horse Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Dodge Creek (all forks and tributaries)	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Dunn Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Fisher River (all forks and tributaries)	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Kootenai	Fivemile Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Glenn Lake Irrigation Canal (Grave Creek)	Trapping below (behind) juvenile fish screen within the irrigation canal to assess fish screen efficiency	Diversion Fish Screen Assessment	Beginning to Glen Lake	May-Aug	Jim Dunnigan	≤1	Y	76	0	Y
Kootenai	Grave Creek	Juvenile downstream weir	Obtain estimates of juvenile out migration and age structure.	Approximate RM 3	May-Nov.	Jim Dunnigan	3	N	0	0	Y
Kootenai	Grave Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Keeler Creek (all forks and tributaries)	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Koocanusa Rerservoir	Hoop Trapping	Capture burbot for population assessment, Bull trout captured incidentally	Entire reservoir	Entire year	Jim Dunnigan	0	Y	31	0	Y
Kootenai	Lake Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Libby Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Meadow Creek (all forks and tributaries)	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	O'brien Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Kootenai	Parmenter Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Pine Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Pipe Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Quartz Creek (all forks and tributaries)	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Seventeenmile Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Silver Butte Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Star Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Sullivan Creek and tribuatries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Therriault Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Tobacco Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Warland Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y
Kootenai	Yaak River and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	No. BT handled	Actual Mort.	Do in 2005?
Kootenai	Young Creek	Trapping/Weir	Determine effectiveness of remote site incubators at increasing abundance of juvenile and adult WCT abundance	Approx. Rm1.0 (1000 ft)	4/1-7/30	Jim Dunnigan	0	N	0	0	Y
Kootenai	Young Creek	Electrofishing /Weir	Juvenile Population Assessment to assess effectiveness of habitat restoration project.	150 m	Jul-Oct	Jim Dunnigan	≤1	Y	3	0	Y
Kootenai	Young Creek and tributaries	Electrofishing/Trapping /Weir	Population and Migration Assessments	Entire stream	Entire Year	Ryan Sylvester	≤1	--	--	--	Y

Habitat Restoration

Habitat restoration projects being done by or in conjunction with Montana Department of Fish, Wildlife and Parks include a variety of activities including stream bank restoration, riparian improvement, riparian fencing, off-site water development, screening of water diversions, installation of instream structures, sediment source reductions, removal of culverts and other barriers, wetland improvements, and various other activities. Projects will be designed and implemented to minimize impacts to native fish and the aquatic environment. All will ultimately provide long-term benefits.

Habitat restoration projects occur throughout the range of bull trout in Montana throughout the year. Many of these projects are at least partially funded by the Department's Future Fisheries Improvement Program. This program solicits and funds habitat restoration projects on a twice/year basis, with applications accepted in January and July. All projects approved for funding must undergo MEPA analysis before commencing. Copies of all EAs will be provided to the USFWS for review as they are completed. Because of the funding cycle and contractual deadlines, it is expected that the list of proposed projects will need to be modified at least once during the year. In addition, other projects in which the Department is a cooperator will be included in future amendments as well.

Steps to minimize any take are included in the project designs. They include timing projects to during low flows and during periods when bull trout are least likely to be impacted; avoiding working in spawning grounds during spawning periods; installing silt screens to reduce sediment inputs; monitoring for bull trout during projects; and minimizing impacts to the riparian and stream channel zones.

Table 9. Summary of habitat restoration activities in bull trout habitat that will be undertaken by Montana Department of Fish, Wildlife and Parks.

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	Do in 2005?
Bitterroot River	Kolb Spring Creek	Channel reconstruction	Improve spawning/rearing habitat, riparian condition and water quality	1 mile	2001-2002	Ladd Knotek	0	N	0	Y
Bitterroot River	Lolo Creek	Install Fish Screen	Reduce entrainment	1 mile	2003-2005	Ladd Knotek	0	N	0	Y
Bitterroot River	Mill Creek	Channel reconstruction, riparian revegetation, riparian fencing	Improve spawning and rearing habitat	7500'	Summer 2003	Chris Clancy Mark Lere	0	N	0	Y
Blackfoot	Arrastra Creek	Culvert replacement	Improve fish passage for bull trout and WSCT	200'	Fall 2004	Ron Pierce	0	N	0	Y
Blackfoot	Ashby Creek	Habitat Restoration	Improve habitat for WSCT	2500'	Fall 2005	Ron Pierce	0	N	0	Y
Blackfoot	Beaver Creek	Fish-Friendly Irrigation	Upgrade Diversion	200'	July-September 2002	Ron Pierce	0	Y	0	N
Blackfoot	Clearwater River	Install self-cleaning screen on Clearwater Irrigation Ditch	Prevent entrainment			Ron Pierce	0	N	0	Y
Blackfoot	Dunham Creek	Diversion improvement	Improve fish passage for bull trout and WSCT	200'	Fall 2005	Ron Pierce	0	N	0	Y
Blackfoot	Jacobsen Spring Creek	Habitat Restoration	Improve habitat for WSCT	2500'	Fall 2005	Ron Pierce	0	N	0	Y
Blackfoot	Moose Creek	Culvert replacement	Improve fish passage	100'	Summer 2005	RonPierce	0	N	0	Y
Blackfoot	Nevada Spring Creek	Channel Reconstruction Fencing for 3 miles of stream	Habitat Restoration	3 miles	In Progress	Ron Pierce	0	N	0	Y
Blackfoot	North Fork	Fish-Friendly Diversion	Move point of diversion – convert from flood to sprinkler irrigation	100'	July-September 2002	Ron Pierce Greg Neudecker (FWS)	0	N	0	Y
Blackfoot	Poorman Creek	Replace 3 culverts	Provide spawning passage		Summer 2003	Ron Pierce	0	Y	0	N
Blackfoot	Rock Creek	Sediment seal project	Instream flow enhancement	3000'	Spring 2005	Ron Pierce	0	N	0	Y
Blackfoot	Rock Creek	Floodplain construction	Improve riparian health and habitat	1.5 miles	Spring 2004	Ron Pierce Greg Neudecker	0	N	0	N

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	Do in 2005?
Blackfoot	Rock Creek, south channel	Channel reconstruction	Improve habitat	2000'	April-June 2004	Ron Pierce	0	Y	0	N
Blackfoot	Wasson Creek	Habitat Restoration	Improve habitat conditions for bull trout and WSCT	2500'	Fall 2005	Ron Pierce	0	N	0	Y
Clark Fork (Lower)	Bull River	Restore riparian area, remove berms, plug existing ditches, and revegetate floodplain area and floodplain	Riparian/wetaland restoration	2650'	Summer 2004	Laura Katzman, Brad Liermann	0	N	0	Y, by Avista
Clark Fork (Lower)	Bull River	Riparian revegetation and reed canary grass removal	Re-establish native plant community and improve riparian habitat	1500'	Summer/fall 2005	Brad Liermann	0	N	0	Y
Clark Fork (Lower)	Elk Creek	Channel reconstruction and riparian revegetation	Sediment reduction and rearing habitat improvement	2000'	Summer/fall 2005	Brad Liermann	0	N	0	Y
Clark Fork (Lower)	Lost Girl Creek	Reclaim road, install water bars and re-vegetate	Reduce sediment run-off	5000'	Summer 2004	Brad Liermann	0	Y, by US Forest Service	0	Y, US Forest Service will install waterbars
Clark Fork (Lower)	Pilgrim Creek	Channel reconstruction and riparian revegetation	Improve spawning and rearing habitat	1000'	Summer/ Fall 2005	Brad Liermann	0	N	0	Y
Clark Fork (Lower)	SF Bull R	Reclaim road	Reduce sediment run-off			Brad Liermann	0	N	0	Y, by US Forest Service
Clark Fork (Middle)	Deer Creek	Upgrade & screen irrigation diversion, habitat improvement	Decrease fish losses, Improve instream habitat	1 mile	2001-2003	Ladd Knotek	0	N	0	Y
Clark Fork (Middle)	Dry Creek	Replace diversion dam with series of rock weirs	Enhance upstream fish passage	~50 m	July - Sept 2004	Ladd Knotek	0	Y	0	Y
Clark Fork (Middle)	Marshall Creek	Install fish ladder, screen & upgrade irrigation diversion. Improve 3000' of channel habitat, fence riparian area.	Fish passage, habitat improvement, decrease fish losses	2 miles	2001-2003	Ladd Knotek	0	Y	0	Y
Clark Fork (Middle)	Mill Creek	Correct 2 fish passage barriers	Provide fish passage	3 miles	2004-2006	Ladd Knotek	0	Y	0	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	Do in 2005?
Clark Fork (Middle)	Ninemile Creek	Stabilize eroding stream banks using soft stabilization techniques and planting native vegetation, and install 10,400 feet of riparian fencing along both sides of the stream within a 1.75 mile reach. Protection of the Cedar Creek Road bridge will involve placement of rip rap.	Stream restoration and stabilization	1.75 miles	2005	Ladd Knotek	0	N	0	Y
Clark Fork (Middle)	Ninemile Creek	Riparian fencing (FFI-28-02)	Stream restoration and stabilization	1150 feet	2005	Ladd Knotek	0	N	0	Y
Clark Fork (Middle)	Rattlesnake Creek	Install fish ladder, upgrade diversion & install screen (FFI-22-02) (FFI-21-02)	Provide fish passage & decrease entrainment losses	2 miles	2005	Ladd Knotek	0	N	0	Y
Clark Fork (Middle)	Rattlesnake Creek	Channel stabilization	Improve spawning and rearing habitat	2500'	2005	Ladd Knotek	0	N	0	Y
Clark Fork (Upper)	Lost Creek (Heggelund)	Habitat improvement, off-site water, revegetation	Stream restoration	3 miles	June-Sept	Eric Reiland	0	N	0	Y
Clark Fork (Upper)	Lost Creek (Lord)	Habitat improvement, off-site water, revegetation	Stream restoration	1.5 miles	June-Sept	Eric Reiland	0	N	0	Y
Clark Fork (Upper)	Lost Creek (Ueland)	Habitat improvement, off-site water, revegetation	Stream restoration	6 miles	June-Sept	Eric Reiland	0	N	0	Y
Clark Fork (Upper)	Lost Creek (Lampert Ranch)	Channel stabilization and riparian fencing	Reduce erosion; increase spawning habitat; prepare channel for increased flows	2.1 miles	Spring 1999	Eric Reiland	0	N	0	Y
Clark Fork (Upper)	Lost Creek (Mathews Ranch)	Headgate reconstruction; riparian fencing; bridge construction	Improved flows during fall spawning period; reduced sediment	1500'	Spring 1999	Eric Reiland	0	N	0	Y
Clark Fork (Upper)	Trout Creek (Trib. To Flint Creek)-Dennis Ranch	Stream Channel relocation and stabilization; Livestock facility relocation	Reduce sediment and nutrient inputs; wetland improvements	4000'	Winter 1999	Eric Reiland	0	N	0	N

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	Do in 2005?
Clark Fork (Upper)	Trout Creek (Trib. To Flint Creek)-McClain Ranch	Channel stabilization, livestock watering site relocation; riparian fencing	Reduce sediment inputs, increase fisheries potential improve wetlands	2640'	Spring 2001	Eric Reiland	0	N	0	N
Clark Fork (Upper)	Trout Creek (Trib. To Flint Creek)-Yardley Ranch	Stream channel restoration and relocation; channel stabilization; off-site water development	Reduce sediment input; increase fisheries potential; improve wetlands	4000'	Winter 1999	Eric Reiland	0	N	0	N
Clark Fork (Upper)	Warm Springs Creek	Stream channel relocation and stabilization; habitat improvement; riparian management; removal of tailing deposits; screening of irrigation diversions	Stabilize eroding banks; reduce sediment inputs; increase spawning area, prevent loss of fish in diversions	17 miles	In progress	Eric Reiland	0	N	0	N
Flint Creek (CFR)	Sams Springs Creek	Wetland and stream restoration	Stream restoration	0.8 miles	2003	Eric Reiland	0	N	0	N
Kootenai River	Grave Creek	Habitat enhancement in lower 3 miles		3 miles	Fall 2002-2005	Jim Dunnigan	0	Y	0	Y
Kootenai	Pipe Creek	Bank stabilization and salmonid habitat enhancement	Increase stream channel stability and increase quantity and quality of salmonid habitat	4500 ft. total	Fall 2004	Jim Dunnigan	0	N	0	Y
Kootenai River	Quartz Creek	Remove 2 debris barriers	Increase access to spawning habitat			Mike Hensler	0	Y	0	N
Kootenai	Therriault Creek	Install irrigation diversion and fish screen	Eliminate entrainment into irrigation diversion ditch	400 ft.	6/1-10/30	Jim Dunnigan	0	Y	0	Y
Kootenai River	Libby Creek	Bank stabilization and salmonid habitat enhancement	Increase stream channel stability and increase quantity and quality of salmonid habitat, and restore historic wetland habitats.	2,800'	Fall 2005	Jim Dunnigan	0	--	--	Y
Kootenai River	Libby Creek	Install Fish Screen at Irrigation Diversion on Bebee Diversion	Eliminate juvenile entrainment	500'	Fall 2005	Jim Dunnigan	0	--	--	Y

Drainage	Water	Action (Provide detailed description)	Purpose	Length/ Area	Date of Action	Personnel	Est. Mort.	Comp-leted?	Actual Mort.	Do in 2005?
Kootenai River	Therriault Creek	Bank stabilization and salmonid habitat enhancement	Increase stream channel stability and increase quantity and quality of salmonid habitat, and restore historic wetland habitats.	4,500'	Spring 2004	Jim Dunnigan	0	Y	0	Y
Rock Creek	Beaver Creek	Stream Restoration (FFI-03-02)	Restore Degraded Channel	1.5 miles	2002	Eric Reiland	2	N	0	Y
Rock Creek	East Fork Rock Creek	Stream Restoration	Restore Degraded Channel	.9 miles	2002	Eric Reiland	10	Y	0	N
Rock Creek	East Fork Rock Creek	Fish Screen	Fish Loss	.1 miles	2002	Eric Reiland	0	N	0	N
Rock Creek	East Fork Rock Creek	Channel reconstruction and stabilization; fish weir construction	Improve and stabilize stream flow where it goes subsurface; prevent upstream migration of brook trout; increase bull trout spawning habitat	1.7 miles	Ongoing	Eric Reiland	10	N	0	N
Rock Creek	East Fork Rock Creek	Stream restoration (design and data collection)	Stream restoration	2.2 miles	June-Sept	Eric Reiland	10	N	0	N
Rock Creek	Hogback	Bridge Replacement	Fish Passage	.1 miles	2002	Eric Reiland	0	N	0	N
Rock Creek	Main Stem Rock Creek (Strand Ranch/Rohrn sen Ranch/ Sanders Ranch/Gillie s Ranch Clark Ranch	Stream channel restoration and stabilization; riparian fencing; irrigation canal screening; grazing management	Reduce erosion and sediment input; improve stream integrity; reduce loss of fish in irrigation canals	17 miles	Feasibility Study in Spring 1998	Eric Reiland	15	N	0	Y
Rock Creek	Mainstem Rock Creek	Riparian fencing (FFI-23-02)	Cattle exclusion	1 mile	2002	Eric Reiland	0	Y	0	N
Rock Creek	Middle Fork Rock Creek	Stream Restoration	Restore Degraded Channel	6.1 miles	2002	Eric Reiland	0	N	0	N
Rock Creek	Ross Fork Rock Creek	Stream Restoration	Restore Degraded Channel	5.0 miles	2002	Eric Reiland	0	N	0	N
Rock Creek	Upper Willow Creek	Stream Restoration	Restore Degraded Channel	2.6 miles	2002	Eric Reiland	5	N	0	Y

PERSONNEL

The following Montana Department of Fish, Wildlife and Parks personnel will be overseeing or conducting the activities described in previous sections.

Name	Education	Area	Prof. Exper. (Years)
Benner, Monty	B.S. University of Montana (Wildlife Biology - Aquatic)	Libby - Kootenai	9
Benson, Neil	B.S. University of Montana (Wildlife Biology - Aquatic)	Libby - Kootenai	15
Berg, Rodney	M.S. Montana State Univeristy (Fish & Wildlife Mgmt.)	Missoula-Clearwater	30
Cavigli, John	B.S. University of Idaho (Fisheries Biology)	Kalispell - Flathead	25
Clancy, Chris	M.S. Montana State University (Fish / Wildlife Mgmnt.)	Hamilton - Bitterroot	28
Daniels, Durae	B.A. Plattsburgh State (Environmental Science)	Flathead	9
Deleray, Mark	B.S. U.C. Berkeley (Biology) M.S. Montana State University (Fish/Wildlife Mgmnt)	Kalispell - Flathead	15
DeShazer, Jay	B.S. Montana State University (Fish/Wildlife Mgmnt.)	Libby - Kootenai	15
Dunnigan, Jim	B.S. University of Idaho M.S. University of Idaho	Libby, Kootenai	11
Garrow, Larry	B.S. University of Montana (Wildlife Biology - Aquatic)	Libby - Kootenai	19
Glutting, Stephen	B.S. University of Idaho (Fisheries Biology)	Kalispell - Flathead	24
Grisak, Grant	A.S. Northern Montana College (Biology) B.S. Northern Montana College (Biology) M.S. Montana State University (Fish/Wildlife Mgmnt.)	Kalispell	15
Hadley, Wayne	PhD Oklahoma State University	Missoula - Upper Clark Fork	44
Hensler, Mike	B.A. Whitman College (Biology) B.S. Montana State University (Fish/Wildlife Mgmnt.) M.S. Montana State University (Fish/Wildlife Mgmnt.)	Libby - Kootenai	24
Hunt, Rick	B.S. University of Michigan (Fisheries Science)	Kalispell - Flathead	14
Javorsky, Larry	M.S. Montana State University (Fish/ Wildlife Mgmnt)	Hamilton - Bitterroot	17
Katzman, Laura	B.S. University of Wisconsin-Stevens Point (Biology/Resource Mgt. Envir. Ed. & Interp.) M.S. Montana State University (Fish & Wildlife Mgmt.)	Thompson Falls-Lower Clark Fork	12
Knotek, Ladd	B.S. University of North Dakota (Fish/Wildlife Biology) M.S. Virginia Tech. (Fisheries Science)	Missoula - Clark Fork	16

Liermann, Brad	B.S. University of Montana (Wildlife Biology – Aquatic emphasis) M.S. Montana State University (Fish/Wildlife Mgt)	Thompson Falls, - Lower Clark Fork	7
Marotz, Brian	B.S. Univ. of Wisconsin at Stevens Point M.S. Louisiana State University at Baton Rouge	Flathead Kootenai	23
Michael, Gary	A.S. Peninsula College, WA (Fisheries)	Kalispell - Flathead	24
Muhlfeld, Clint	B.S. University of Montana (Aquatic Biology) M.S. University of Idaho (Fisheries Resources)	Kalispell - Flathead	14
Nyce, Leslie	B.S. Environmental Science – Biology Kutztown University, Kutztown, PA	Hamilton - Bitterroot	14
Ostrowski. Tom	B.S. Michigan State University (Forest Resource Mgmnt.)	Libby - Kootenai	16
Pierce, Ron	B.S. University of Montana	Missoula - Blackfoot	18
Reiland, Eric	B.S. Colorado State University (Fish/Wildlife Mgmnt.) M.S. Montana State University (Fisheries Management)	Missoula - Rock Creek, Clark Fork	19
Rumsey, Scott	B.S. William Jewel College, MO (Wildlife Biology)	Kalispell - Swan	29
Saffel, Pat	B.S. South Dakota State (Fisheries Science) M.S. University of Idaho (Fishery Resources)	Thompson Falls - Lower Clark Fork	13
Schmetterling, Dave	B.S. University of Montana	Missoula - Blackfoot, Clark Fork	11
Sinclair, Cameron	B.S. University of Guelph (Marine Biology)	Libby - Kootenai	7
Sylvester, Ryan	B.S. University of Wyoming (Wildlife and Fisheries Biology and Management) M.S. South Dakota State University (Wildlife & Fisheries Sciences – Fisheries Specialization)	Libby – Kootenai	6
Vashro, Jim	B.S. University of Montana (Zoology - Aquatic Option) M.S. - Cornell University (Fishery Science)	Kalispell - Flathead	31
Wachsmuth, John	B.S. University of Montana (Parks and Recreation)	Kalispell - Flathead	23
Weaver, Tom	B.S. University of Montana (Wildlife Biology)	Kalispell - Flathead, Swan	28

Contacts:

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Montana Department of Fish, Wildlife and Parks - Libby Field Office
475 Fish Hatchery Road
Libby, MT 59923
406-293-4161

Montana Department of Fish, Wildlife and Parks - Region 2
Pat Saffel - Regional Fisheries Manager
3201 Spurgin Road
Missoula, MT 59804
406-542-5500

Other Qualified Personnel

In addition to the above listed individuals, the Department assumes the authority to sub-permit other qualified individuals engaged in bull trout recovery or conservation activities under the authority of this Section 6 authorization. These individuals include other agency biologists (Forest Service, BLM, U.S. Fish and Wildlife Service), university researchers, and biological consultants. Any individual seeking to collect fish in Montana must first obtain a Scientific Collectors Permit from the Department. Through this state permitting process, project proposals, personnel, and methodologies can be carefully scrutinized to ensure the proposed activities are necessary, in accordance with accepted protocols, and in compliance with ESA requirements. If a state collectors permit is issued, it will contain stipulations regarding types of activities authorized, timing of collection, collection methods, collection locations, and reporting requirements. Collection reports will be mandatory, and will be included with the Department's annual Section 6 report. Only activities that contribute to the conservation or recovery of bull trout will be permitted. If collection permits are issued for projects that may result in take, the Department will provide an amendment to the Service to ensure ESA requirements are met.

Qualified individuals also participate in other conservation and recovery actions beyond collection, such as habitat restoration, redd counts, and research. Such projects are often cooperative efforts involving numerous individuals and agencies. The Department assumes authorization to include such projects and individuals being done in cooperation with the Department under this Section 6 authorization.

REPORTING

Annual reports of project status and estimated take will be summarized in an annual report and submitted to the Service by February 28 of the following calendar year.

Up to five mortalities will be taxidermist mounted and used for educational purposes. All other mortalities will be preserved frozen and shipped to the U.S. Fish and Wildlife Service's Fish Health Laboratory in Bozeman, Montana by the end of each field season.

CONCLUSION

The above listed activities represent a very comprehensive summary of all activities being conducted directly or in cooperation with the Montana Department of Fish, Wildlife and Parks. Although some of the above listed activities may result in take of bull trout, all will ultimately result in the conservation

and recovery of the species. Any additional activities that may result in take of bull trout will be amended to this plan.

Not all activities reported result in handling or capture of bull trout. The actual take of bull trout attributed to the 2004 bull trout conservation activities where take occurred is summarized in the table below. Total take identified in this report as occurring in 2004 consisted of 2859 bull trout handled, with a total of 201 mortalities.

Summary of take associated with bull trout conservation actions-2004

	Gillnetting		Electrofishing		Genetic sampling		Radiotelemetry		Trapping/Tagging	
	Handled	Morts	Handled	Morts	Handled	Morts	Handled	Morts	Handled	Morts
Bitterroot			116	0						
Blackfoot			139	0						
Clark Fork	7	1	474	9			12	1	9	0
Clearwater	1	1								
Flathead	120	70	308	0			253	5		
Kootenai	104	60	877	6	12	12			110	0
Stillwater			129	1						
Swan	41	35	137	0						
Whitefish			10	0						
Totals	273	167	2190	16	12	12	265	6	119	0
Total Handled	2859									
Total Morts	201									

Bull Trout Redd Counts

Montana 1980 - 2004

Restoration Area / Core Habitat Area		996	1997	1998	1999	2000	2001	2002	2003	2004
Bitterroot:										
Skalkaho Creek	Daly C	49	36	59	-	-	77	58	-	30
Skalkaho Creek	Skalka	49	36	59	-	-	-	-	-	-
Upper East Fork Bitterroot River	East F	-	-	-	-	5	2	1	1	0
Upper East Fork Bitterroot River	Meadc	6	14	1	17	17	21	11	8	10
Upper West Fork Bitterroot River	Deer C	-	2	2	5	2	4	5	3	3
Upper West Fork Bitterroot River	West F	-	0	2	5	2	-	-	-	-
Blackfoot:										
Copper Creek	Copper	21	22	27	9	20	16	15	4	12
Gold/Belmont Creeks	Belmo	4	-	14	8	4	3	11	-	-
Gold/Belmont Creeks	Gold C	-	-	16	30	9	17	6	4	-
Monture Creek	Dunha	-	-	-	-	-	-	11	6	6
Monture Creek	Montu	55	61	60	65	74	94	93	80	44
Morrell Creek	Morrel	1	-	-	-	-	-	24	10	22
North Fork Blackfoot River	North	59	65	76	87	123	75	70	41	42
Lower Clark Fork:										
Bull River	East F	-	-	-	-	12	21	32	29	9
Bull River	North	-	-	-	-	-	0	-	-	-
Bull River	North	-	-	-	-	4	0	-	-	-
Bull River	South	-	-	-	-	4	1	10	5	1
Graves Creek	Grave	-	-	-	-	5	11	10	6	5
Prospect Creek	Prospe	-	-	-	-	-	3	4	16	11
Vermilion River	Vermil	-	-	-	-	-	37	25	15	24
Lower Kootenai:										
	North	-	-	-	-	-	-	-	30	17
	South	-	-	-	-	-	-	-	10	8
Keeler Creek	Keeler	4	25	39	42	3	7[B]	27	61	53
Keeler Creek	North	-	18	43	52	82	4	75	26	30
Keeler Creek	South	-	16	10	5	5	0	0	0	43
O'Brien Creek	O'Brie	2	36	47	37	34	47	45	46	51
Middle Clark Fork:										
Cedar Creek	Cedar	-	-	-	-	-	-	10	12	2
Cedar Creek	Orego	-	-	-	-	-	-	7	-	-
Fish Creek	North	-	-	-	-	15	4	2	6	7
Fish Creek	West	-	-	-	-	-	8	6	14	6
Fishtrap Creek/West Fork Thompson River	Beatri	-	-	-	-	11	9	1	3	-
Fishtrap Creek/West Fork Thompson River	Fishtr	-	-	-	-	10	4	11	5	9

Bull Trout Redd Counts

Montana 1980 - 2004

Restoration Area / Core Habitat Area		996	1997	1998	1999	2000	2001	2002	2003	2004
Fishtrap Creek/West Fork Thompson River	West F	-	-	-	9	7	1	3	4	
Fishtrap Creek/West Fork Thompson River	West F	-	-	-	2	1	7	12	8	
Rattlesnake Creek	Rattlesı	-	-	12	12	30	29	33	-	
St. Regis River	North F	-	-	-	-	-	-	12	6	
St. Regis River	South F	-	-	-	-	-	7	6	4	
Middle Kootenai:										
Libby Creek	Bear C	10	13	22	36	23	4[C]	17	14	6
Pipe Creek	East Fo	0	-	-	-	-	-	-	-	-
Pipe Creek	Pipe C	7	26	34	36	30	6[A]	11	10	8
Quartz Creek	Quartz	5	30	33	14	52	45	52[C]	29	8
Quartz Creek	West F	2	39	72	88	39	109	10	26	41
	West F	4	0	8	18	23	1	1	1	13
Oldman:										
	Boulde		12	42	20	30	28	28	28	13
	Kenne		23	37	-	23	12	11	18	27
Rock Creek:										
Alder Creek	Alder C	8	20	-	12	3	-	5	16	-
East Fork Rock Creek	East F	1	33	38	11	6	42	29	32	33
East Fork Rock Creek	Meado		0	2	5	-	14	0	2	2
Gilbert Creek	Gilbert	2	6	-	-	-	-	-	-	-
Hogback Creek	Hogba	6	7	-	7	-	11	8	3	2
Middle Fork Rock Creek	Carpp	0	10	44	28	32	25	20	15	12
Middle Fork Rock Creek	Coppe	6	20	25	7	8	4	5	8	14
Middle Fork Rock Creek	Meyer		5	8	2	10	0	0	0	0
Middle Fork Rock Creek	Middle	5	36	47	33	32	33	30	15	10
Ranch Creek	Ranch	7	14	3	25	-	13	21	8	7
Ross Fork Rock Creek	Ross	0	5	19	6	4	2	8	7	4
Stony Creek	Little S		-	29	6	12	10	14	2	2
Stony Creek	Stony	8	25	50	31	15	18	3	17	15
Welcome Creek	Welco	5	19	5	10	-	9	4	15	2
	Butte	0	-	-	-		8	16	8	1
	West	1	0	-	0	-	3	-	-	-
South Fork Flathead:										
Big Salmon Creek (Disjunct)	Big Sa	1	55	-	59	-	75	-	-	27
Little Salmon Creek	Little	34	100	-	138	-	111	-	-	71
S. Fk. Flathead R. upstream from Gordon Cr.	Babco		-	-	16	-	-	-	-	-
S. Fk. Flathead R. upstream from Gordon Cr.	Dana		-	-	7	-	-	-	-	-
S. Fk. Flathead R. upstream from Gordon Cr.	Gordo	8	30	-	99	-	120	-	-	140
S. Fk. Flathead R. upstream from Gordon Cr.	Rapic		-	-	0	-	-	-	-	-

Bull Trout Redd Counts

Montana 1980 - 2004

Restoration Area / Core Habitat Area		996	1997	1998	1999	2000	2001	2002	2003	2004
S. Fk. Flathead R. upstream from Gordon Cr.	Youngs	74	43	-	85	-	61	-	-	100
Spotted Bear River	Spotte	-	-	-	13	-	-	-	-	-
Sullivan Creek	Quinto	4	0	11	15	15	17	21	4[F]	18
Sullivan Creek	Stream Sulliva	52	50	54	55	45	51	18	45	62
Wheeler Creek	Wheel	3	1	4	12	23	25	12	17	15
White River	White	36	31	-	76	-	76	-	-	70
Wounded Buck Creek	Woun Strea	41	14	5	3	3	9	5	10	3
Swan:										
Cold Creek	Cold C	20	23	18	19	25	12	2	2	5
Elk Creek	Elk Cr	176	186	259	261	209[G]	165	152	168	157
Goat Creek	Goat C	52	85	71	46	71[G]	91	54	80	67
Goat Creek	Squee Strea	117	125	141	59[E]	105	114	122	85	94
Holland Lake (Disjunct)	Hollan	26	19	19	11	12	5	7	7	13
Jim Creek	Jim Cr	63	74	71	58	69	95	35	18	68
Lindbergh Lake	Cryst	-	9	-	-	-	16	-	-	-
Lion Creek	Lion C	181	190	141	135	120	132	102	92	117
Lost Creek	North	-	-	11	-	-	-	-	-	-
Lost Creek	South	28	47	19	24	12	14	11	27	10
Piper Creek	Piper	29	19	9	18	6	4	4	2	4
Soup Creek	Soup	8	12	8	9	12	5	4	2	3
Woodward Creek	South	-	25	26	-	-	-	-	-	-
Woodward Creek	Wooc	172	47	55	53	76	55	54	116	58
Upper Clark Fork:										
Boulder Creek	Boulc	-	-	-	17	5	12	13	18	9
Warm Springs Creek	Foste	-	-	6	12	2	9	-	3	6
Warm Springs Creek	Twin	-	-	-	27	7	16	18	20	22
Warm Springs Creek	Warr	-	-	32	14	7	28	12	8	10
Upper Flathead:										
Bear Creek	Bear	-	2	-	-	15	-	-	0	-
Big Creek	Big C	6	13	30	34	32	22	12	12	11[E]
Big Creek	Hallc	-	0	-	-	32	6	9	8	
Bowman Creek	Bowi	-	-	-	-	-	-	0	0	0
Bowl Creek	Bowl	-	6	-	-	6	-	-	0	-
Clack Creek	Clac	-	1	-	-	4	-	-	13	-
Coal Creek	Coal	3	5	14	7	3[G]	0	0	1[G]	3[E]
Coal Creek	Matt	-	0	-	-	1	-	-	0	-
Coal Creek	Soul	-	4	-	-	1	-	-	1	-
Cyclone Creek (Disjunct)	Cycl	5	0	0	0	0	0	0	3	0

Bull Trout Redd Counts

Montana 1980 - 2004

Restoration Area / Core Habitat Area		'96	1997	1998	1999	2000	2001	2002	2003	2004
Frozen Lake (Disjunct)	Frozer	10	-	-	-	-	-	-	-	
Granite Creek	Granit	4	12	22	37	26[G]	18	18	17	17[E]
Harrison Creek	Harris	-	-	-	-	-	-	-	4	
Logan Creek (Disjunct)	Logan	-	-	-	-	-	-	-	-	
	Loggir	-	-	-	-	-	-	-	3	
Long Creek	Long (	-	15	-	-	11	-	-	17	-
Morrison Creek	Lodge	8	5	7	11	3	17	12	10	6[E]
Morrison Creek	Strear Morris	9	39	35	30	44[G]	40	30	21[G]	10[E]
Nyack Creek	Nyack	-	9	-	-	13	-	-	14	-
Quartz Creek	Quart	-	-	-	-	-	-	-	31	47
Ole Creek	Ole Cr	0	14	22	26	33[G]	29	21	21	14[E]
Park Creek	Park (	-	2	-	-	10	-	-	0	-
Red Meadow Creek	Red M	-	3	-	-	1	-	-	3	-
Schafer Creek	Dolly \	-	9	-	-	40	-	-	5	-
Schafer Creek	Schafe	-	5	-	-	19	-	-	4	-
Strawberry Creek	Strawl	-	13	-	-	9	-	-	9	-
Strawberry Creek	Trail C	-	6	-	-	18	-	-	0	-
Swift Creek (Disjunct)	East F	0	0	0	0	0	0	0	0	0
Swift Creek (Disjunct)	Swift (	0	-	7	6	5	2	4	4	4
Swift Creek (Disjunct)	West	2	0	5	3	5	12	1	2	3
Trail Creek	Trail C	8	9	17	21	42	27	26	14	34[E]
Upper Stillwater River (Disjunct)	Fitzsir	-	-	12	6	-	-	-	4	-
Upper Stillwater River (Disjunct)	Stillwa	8	16	35	24	34	12	19	21	-
Whale Creek	Short	-	2	-	-	12	-	-	0	-
Whale Creek	Whale	35	17	40	49	68[G]	77	71	34	41[E]
	Charli	-	3	-	-	0	-	-	0	-
CANADA	Cabin	-	2	-	-	2	-	-	1	-
CANADA	Could	-	5	-	-	6	-	-	9	-
CANADA	Howel	-	7	-	-	11	-	-	15	-
CANADA	Kishe	-	10	-	-	23	-	-	4	-
CANADA	North	-	19	-	-	53	-	-	60	-
CANADA	Sage	-	2	-	-	1	-	-	0	-
Upper Kootenai:										
Grave Creek	Blue S	6	1	1	10	1	13	5	20	10
Grave Creek	Clarer	5	6	13	39	9	29	38	52	29
Grave Creek	Grave	24	42	52	85	87	131	156	173	102
Wigwam River	Wigw	14	17	6	21	9	19	11	10	27
CANADA	Wigw	10	598	685	868	1195	1477	1916	2035	2106