Montana Fish, Wildlife & Parks

2300 Lake Elmo Drive
Billings MT 59105

May 26, 2006

TO: Environmental Quality Council
Director's Office, Dept. of Environmental Quality
Montana Fish, Wildlife & Parks*
- Director's Office
- Parks Division
- Fisheries Division
- Wildlife Division
- Lands Section
- Design & Construction
- Legal Unit
- Regional Supervisors

Mike Volesky, Governor's Office *
Sarah Elliott, Press Agent, Governor's Office*
Montana Historical Society, State Preservation Office
Janet Ellis, Montana Audubon Council
Montana Wildlife Federation
Montana State Library*
George Ochenski
Montana Environmental Information Center
Wayne Hirst, Montana State Parks Foundation
FWP Commissioner Shane Colton*
Sharon Moore, DNRC Area Manager, Southern Land Office
Bill Avey, USFS, Big Timber (wavey@fs.fed.us)
Scott Barndt, USFS, Bozeman (sbarndt@fs.fed.us)
Scot Shuler, USFS, Livingston (swshuler@fs.fed.us)
Scott Bosse, GYC, Bozeman (sbosse@greateryellowstone.org)
Other Local Interested People or Groups

* (Sent electronically)

Ladies and Gentlemen:

Attached for your review is a draft Environmental Assessment for replacement of the existing rainbow trout fisheries in Silver and Prospect lakes in the Four Mile Creek drainage (Absaroka-Beartooth Wilderness) with native Yellowstone cutthroat trout (YCT). Replacing these fisheries would be the first step in converting the entire Four Mile Creek drainage to a YCT fishery.

Any questions should be directed to Jim Olsen (328-4636) or Jim Darling (247-2961). A public meeting will be held in conjunction with the June 28 (7:00 p.m.) meeting of the Boulder River Watershed Group at the McLeod School. Written comments should be addressed to the undersigned by June 30, 2006.

Sincerely,

Gary Hammond
Regional Supervisor

MONTANA FISH, WILDLIFE AND PARKS
FISHERIES DIVISION
Draft
ENVIRONMENTAL ASSESSMENT
YELLOWSTONE CUTTHROAT TROUT
RESTORATION IN SILVER AND PROSPECT LAKES

PART 1. PROPOSED ACTION DESCRIPTION

A. Type of Proposed Action: Montana Fish Wildlife and Parks (FWP) is proposing to replace the existing rainbow trout fisheries in Silver and Prospect lakes in the Four Mile Creek drainage with Yellowstone cutthroat trout (YCT). Four Mile Creek is the largest tributary to the Boulder River upstream of the Natural Bridge Falls. The proposed change in management of these lakes is part of a larger project to protect the YCT population in Meatrack Creek, a tributary to Four Mile Creek. Meatrack Creek harbors the largest and most abundant YCT population in the Boulder River drainage upstream of Natural Bridge Falls. Hybridization between YCT and rainbow trout threatens the long-term preservation of this native YCT population. There are no natural barriers preventing movement of rainbow trout from Four Mile Creek into Meatrack Creek. The eventual goal of this project will be to replace the rainbow trout fishery in the Four Mile Creek drainage with YCT. First, however, the self-sustaining populations of rainbow trout in the lakes must be eliminated. This document describes the first phase of the project, which involves removal of rainbow trout from Silver and Prospect lakes at the head of the drainage.

B. Agency Authority for the Proposed Action: FWP "…is hereby authorized to perform such acts as may be necessary to the establishment and conduct of fish restoration and management projects…" under statute 87-1-702.

C. Estimated Commencement Date: July 1, 2006.

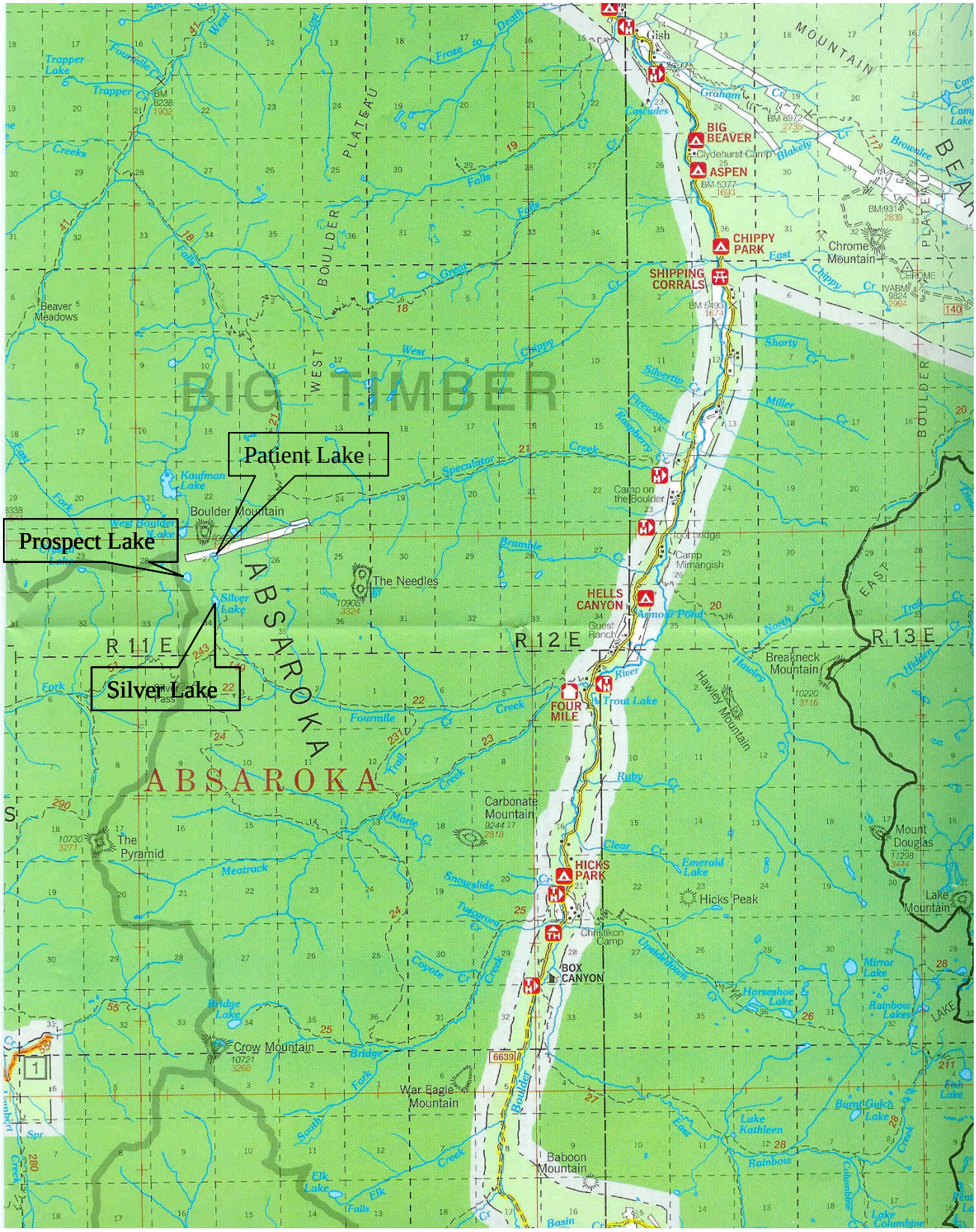
Estimated Completion Dates: August 30, 2011

Phase 1: Silver and Prospect lakes rainbow trout removal and replacement with YCT

Phase 2: Removal of rainbow and hybrid rainbow-cutthroat trout from Four Mile and lower Meatrack creeks (not covered in this document, but to be proposed after Phase 1)

D. Name and Location of the Project: Yellowstone cutthroat restoration in Silver and Prospect lakes.

Silver and Prospect lakes are located at the head of Four Mile Creek (T5S R11E Sec 34, 27), the largest tributary to the Boulder River upstream of Natural Bridge Falls (Map 1). Both lakes are within the Absaroka-Beartooth Wilderness Area (A-B) and harbor self-sustaining populations of rainbow trout.



Map 1. Four Mile Creek drainage showing Silver and Prospect lakes.

E. Project Size (acres affected)

1. Developed/residential – 0 acres
2. Industrial – 0 acres
3. Open Space/Woodlands/Recreation – 0 acres
4. Wetlands/Riparian – 0 acres;
5. Floodplain – 0 acres
6. Irrigated Cropland - 0 acres
7. Dry Cropland – 0 acres
8. Forestry – 0 acres
9. Rangeland – 0 acres
10. Other – Lake acres affected – 16.8

F. Narrative Summary of the Proposed Action and Purpose of the Proposed Action.

1. <u>Summary of the Proposed Action</u>:

Four Mile Creek is a tributary to the upper Boulder River, and its watershed is located almost entirely within the A-B Wilderness. Four Mile Creek supports a self-sustaining population of rainbow trout. Meatrack Creek is a tributary to Four Mile Creek and harbors a 99% pure population of YCT, the most highly productive and largest self-sustaining population in the upper Boulder River. There is no barrier keeping rainbow trout from moving into Meatrack Creek and hybridizing with YCT; however, the high gradient of the creeks near their confluence has retarded rainbow movement upstream. Approximately 1 mile upstream from the Four Mile-Meatrack confluence, Meatrack Creek runs through a series of large meadows with excellent aquatic and riparian habitat. Within this section of creek, the YCT population is most abundant (2,100 fish/mile). Genetic data collected in 2003 from the meadows section of the creek suggest that rainbow trout are now invading this population and hybridizing with the cutthroats. Although the current contribution of rainbow genes to the population is low (1%), the genetic analysis indicates that the hybridization has occurred recently, suggesting a recent invasion of rainbows. More recent survey data from 2005 suggest that hybridized fish are becoming abundant in the lower meadows down to the confluence with Four Mile Creek. The high productivity of the YCT population in Meatrack Creek and the hybridization threat from rainbow trout have prompted FWP, in cooperation with the Gallatin National Forest (GNF), to propose a YCT restoration and enhancement project in the Four Mile Creek drainage.

Silver Lake (9,043 ft; Figure 1), situated at the head of Four Mile Creek, also has a self-sustaining population of rainbow trout (Figure 2). Patient and Prospect lakes are located upstream of Silver Lake (Map 1). Prospect Lake has historically contained rainbow trout, and surveys conducted during 2005 suggest the lake still contains a trout population. Patient Lake has historically been fishless, and surveys conduced during 2005 indicate the lake is still fishless. There are no management changes proposed for Patient Lake. Barrier waterfalls present below both Prospect and Silver lakes prevent fish from Four Mile Creek from migrating into the lakes. Silver Lake has a surface area of 10.0 acres with a maximum depth of 30 ft (Figure 3). Due to the lack of spawning habitat, it is likely that most of the reproduction in Silver Lake is occurring in the inlet area and inlet stream. Prospect Lake (6.8 acres) has a maximum depth of 36 ft (Figure 4). The reproduction in this lake likely occurs in the outlet stream.

Figure 1. View of Silver Lake from north of the lake.

The goal of this project is to replace the rainbow trout population in Four Mile Creek drainage, beginning at Silver and Prospect lakes, with YCT. This project would be conducted in two phases: phase 1 would involve mechanically removing rainbow trout from Silver and Prospect lakes and inhibiting natural reproduction, while also attempting to "swamp out" the rainbow population through the stocking of YCT into the lakes. Phase 2 would involve chemically removing rainbow trout from Four Mile Creek and hybrid fish from lower Meatrack Creek. This document will cover only Phase 1 of the project. A separate environmental assessment will be prepared for Phase 2 once additional data is collected from Four Mile and Meatrack creeks.

Mechanical removal would consist of intensively gill netting Silver and Prospect lakes immediately prior to and several weeks after spawning. Spring-spawning trout in the A-B high mountain lakes usually spawn within 2 weeks of ice-out. It is anticipated that gill nets would be initially set in late June or early July depending on snow pack and ice conditions at the lakes. Ice conditions would be checked from the air using a helicopter. Four to 8 nets would be set in each lake over a period of 3-5 days. The lakes would be netted for a second time for of 3-5 d in August. During these times, gill nets would be set with the aid of a pontoon raft. Captured fish would be disposed of by sinking the carcasses

Figure 2. Rainbow trout from Silver Lake ranging in size from 7-13 in. Fish at top is a 4-year-old cutthroat trout stocked into the lake.

in the deepest portions of the lakes (> 30 feet in both lakes) using the raft. In addition to gill nets, temporary block nets would be installed in the inlets and outlets, and around any spawning areas in the lakes in late June or early July. The purpose of these nets is to prevent fish from reaching spawning habitat. Unlike the gill nets that would be removed after each week of netting, the block nets would be left in the lakes until spawning time has passed (3-6 weeks). Block nets would be initially set in June or July and removed in August. Depending on the accessibility of the lakes in early spring, block nets may also be set in the fall and remain in the lake under the ice during the winter and spring. During the first year of the project, sinking gill nets may also be fished all winter under the ice. No motorized equipment would be used for this project.

If spawning can be eliminated in the lakes, and if netting is successful, it is anticipated that mechanical removal will take 3-6 years to complete. Removal will be considered complete when no rainbow trout are captured during netting.

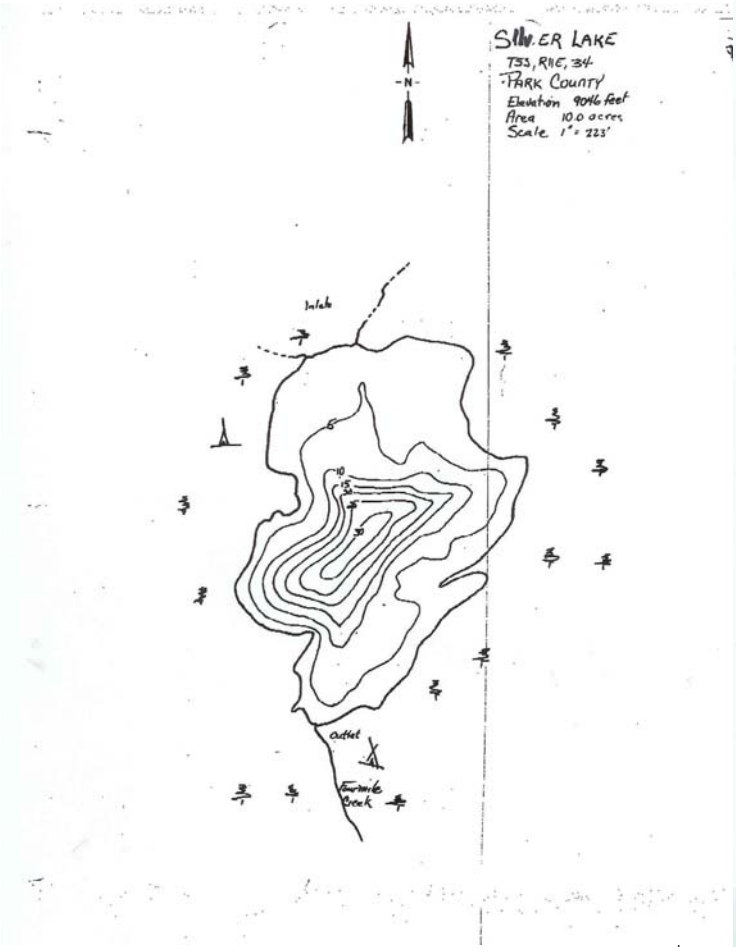


Figure 3. Bathymetric map of Silver Lake

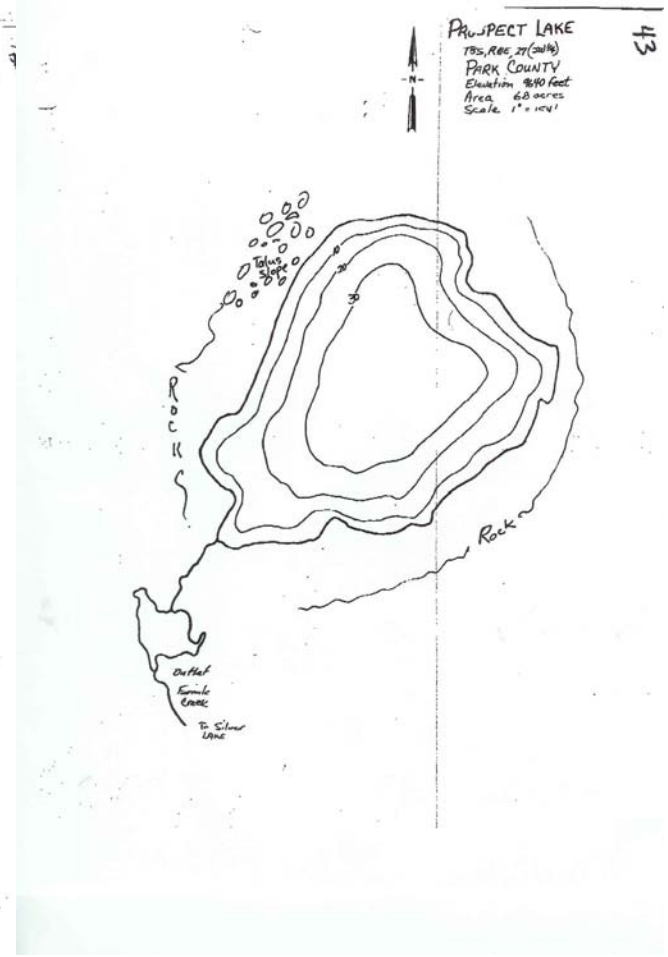


Figure 4. Bathymetric map of Prospect Lake

Equipment necessary for Phase 1 of the project would be packed into Silver and Prospect lakes via horse/mule pack train and helicopter landing on private land (a private in-holding within the Wilderness boundary) near Prospect Lake. The local Backcountry Horsemen group has volunteered the time and animals to pack the equipment into the lakes and back out once the project is completed. The crews performing the netting and packing would practice minimum-impact camping techniques and would comply with all food storage orders to reduce wilderness impacts. An overnight camp for livestock would be established at a meadow approximately 1 mile downstream from Silver Lake, or at another campsite, but not at Silver Lake. A secondary camp may be established near Silver Lake for a crew of 2-6 people setting and pulling nets. Equipment going to Prospect Lake will be carried by hand from the landing location on private land to the lake. Gill nets, a raft and other equipment from Silver Lake (except block nets, which will stay in the lakes) will be packed out between the first and second gill nettings. Gill nets at Prospect Lake will be cached on private land. All equipment from Silver Lake will be packed out at the end of each field season. Equipment from Prospect Lake will be cached over the winter on private land.

Swamping would consist of intensively stocking both lakes annually with genetically pure YCT from the Yellowstone River Trout Hatchery in Big Timber. Initial stockings of YCT in Silver Lake began in 1997 and occurred again during 2001. Survey data collected during 2005 indicated that YCT from the 2001 plant have survived and grown well in the lake (Figure 2). Other studies in Montana have shown that cutthroat trout stocked into lakes with rainbow trout or hybridized fish can be successful at surviving and competing. The stocking frequency of YCT will be increased to an annual plant, and the numbers of fish increased from 100 to 200-400/acre in Silver Lake (2,000-4000 fish). Prospect Lake, which has not been stocked with YCT, will also be stocked annually with 200-400 fish/acre (1,200-2,400 fish). Stocking usually occurs in late July or August using a helicopter. Stocking of YCT into the lakes would begin after the second year of the project to reduce gillnet mortality of stocked cutthroat trout. To distinguish stocked trout from wild trout, the adipose fin would be clipped on all YCT stocked into the lakes. All fish captured in gillnetting after the second year with an adipose fin would be removed, so that wild fish that are potentially hybrids and/or pure rainbows can be readily distinguished from pure YCT from the Big Timber Hatchery. All live fish captured with a clipped adipose will be released back into the lakes. By stocking the lakes each year with YCT at a high rate, and releasing all known YCT captured in gill nets, Silver and Prospect lakes would continue to provide a recreational fishery for cutthroat trout for backcountry visitors during the rainbow trout removal.

To inform the public, and in particular persons recreating near Four Mile Creek, signs will be prepared in cooperation with the GNF and placed at the Four Mile trailhead. These signs would briefly describe the objectives of the project, why it is important, and the techniques being used to accomplish the objectives. Further, the crews that perform the block- and gill-netting would make an extra effort to inform visitors about the project and its purpose. The Backcountry Horsemen have also offered to provide netting hosts who would stay in the area in the interim between initial block net installation and removal to watch over the nets and inform any visitors about the project. All nets set in the lakes would be marked with small tags with an FWP emblem.

It is unclear if there is a self-sustaining population of rainbow trout in the creek between Prospect and Silver lakes. The creek will be surveyed during the summer of 2006 using backpack electrofishing. Captured trout will be removed. If it is determined that there is a self-sustaining population of trout in this reach of stream, and that electrofishing is not sufficient to remove it, a chemical treatment would be applied to the stream each year during the netting of the lakes to remove resident fish. A review of potential piscicide treatment between the lakes will not be included in this document, but will be covered in Phase 2 of the project (see below).

Phase 2 of the project would involve chemically treating Four Mile Creek, lower Meatrack Creek and potentially the stream between Prospect and Silver lakes where rainbow trout and hybridized fish are present. The treatment of Four Mile and Meatrack Creeks would not be conducted until no rainbows are captured in Silver and Prospect lakes and the stocked YCT populations are established. The need for additional information about Four Mile Creek, such as the extent of fish passage from the main Boulder and the current genetic status of the Meatrack Creek population of cutthroat, precludes including this phase of the project in this assessment. Necessary information for this phase of the project will be collected in the coming field seasons, and a separate EA will be prepared.

2. Purpose and Need for the Proposed Action:

a. Statewide: Yellowstone cutthroat trout (*Oncorhynchus clarki bouvieri*) once inhabited most of the streams in the Yellowstone River drainage. A survey of streams within the Yellowstone River basin has revealed 38 populations, of which 35 were deemed threatened (USDA Forest Service et al. 1998). The distribution of these populations is in approximately 428 stream miles, representing about 10% of the estimated historic stream habitat of 4,260 miles (FWP et al. 2000). The current plight of the YCT is due to loss of habitat, competition from non-native species, hybridization with non-native species, predation by non-native species, and over-harvest by anglers.

The US Fish and Wildlife Service (USFWS) was petitioned to list the YCT as threatened in August of 1998 under the Endangered Species Act (ESA). The recovery efforts currently being conducted in Montana, Wyoming, and Idaho resulted in a rejection of this petition. Had the YCT been listed local management options would have given way to federal management of the recovery. On January 13, 2004, conservation groups initiated a lawsuit against the U.S. Fish and Wildlife Service for illegally denying listing of the Yellowstone cutthroat trout as a threatened or endangered species under the ESA in 2001. The USFWS ruled again in 2005 that listing was not warranted for Yellowstone cutthroat trout, but litigation continues.

YCT are a part of Montana's heritage, and are a symbol for one of the nation's most famous parks. Catching a native trout is still one of the values that Montana has to offer its residents and visitors. Due to their current status in Montana, YCT are managed for "catch and release" fishing in most streams where they are present. A "Cooperative Conservation Agreement for Yellowstone Cutthroat Trout within Montana" drafted in 1999 has the goal to: "Ensure the persistence of the Yellowstone cutthroat trout subspecies within the historic range in Montana at levels and under conditions that provide for protection and maintenance of both intrinsic and recreational values associated with this fish."

b. The Boulder River Basin: Many of the identified riverine populations of YCT in Montana are found within or near the boundaries of the Custer and Gallatin National Forests. According to Montana fish stocking records, 31 of the 38 streams/watersheds identified with YCT have also been stocked with one of the following species: rainbow trout, brook trout, brown trout, YCT, or other unidentified trout. Many of the YCT populations that exist in this area are isolated remnants of original populations that have survived above barriers to fish migration or are populations resulting from stocking above natural and manmade barriers.

Due to introductions of YCT to lakes of the A-B Mountains, the status of lake populations is less bleak. Montana high-mountain lake records indicate there are 63 lakes with reproducing populations and an additional 74 stocked populations of YCT. Fewer than five of these lakes originally supported fish. These introduced fish are from either wild stock (live fish transfer), the Yellowstone River stock of

cutthroat trout, or from McBride Lake stock (in Yellowstone Park) reared in hatcheries. These lake populations are important to the survival of YCT as a species, but they are not indigenous populations.

Of the several YCT populations in the Boulder River drainage, the most abundant and secure from the threats of competition and hybridization resides in Pacer Basin (East Boulder River). The main Boulder River downstream of Natural Bridge Falls and the West Boulder River contain only a few cutthroats. The species assemblage in these areas is dominated by brown and rainbow trout. Non-native trout species compete for food and space with native trout, but the more immediate threat is hybridization between the two species. Immediately upstream of Natural Bridge Falls cutthroat are also rare, but their abundance increases farther upstream. In the vicinity of Four Mile Creek, cutthroats are more abundant than rainbow trout. Genetic testing of cutthroat trout upstream of Four Mile Creek suggests that YCT in the mainstem river are hybridized with Westslope cutthroat trout and rainbow trout. Tributaries to the main Boulder upstream of Natural Bridge Falls that harbor cutthroat populations include Hawley Creek, Meatrack Creek, Bridge Creek, Upside Down Creek, and East Fork Boulder River. Past genetic testing from Hawley Creek and East Fork Boulder River (upstream of the confluence of Rainbow Creek) have suggested these populations are pure YCT. An extensive survey of the tributaries to the Boulder River conducted during 2003 suggested that Four Mile Creek has one of the most abundant fish populations and is likely a significant source of fish to the main Boulder River (Olsen 2006). Rainbow trout, cutthroat trout and hybrids were present in the lower reaches of the creek near the confluence with the Boulder River. If the Four Mile Creek drainage fishery is converted to YCT, it will continue to serve as a major source of fish to the main Boulder River; however, these fish will be pure YCT.

3. <u>Benefits of the Project:</u>

This project will produce a resident native YCT population in two wilderness lakes that currently have non-native rainbow trout populations. Recent data suggests that YCT will grow as well or better than the resident rainbow trout in Silver Lake, producing a quality recreational fishery in addition to achieving long-term cutthroat conservation goals. If Phase 1 and Phase 2 of the project are completed, the Meatrack Creek population of cutthroats will be protected from hybridization, and a new resident YCT fishery will be created in Four Mile Creek, Prospect Lake, and Silver Lake. Four Mile Creek will serve as a source of pure YCT to the Boulder River and will increase the frequency of cutthroat genes in the mainstem river population. In turn, this project will help achieve the goals and objectives listed in the "Cooperative Conservation Agreement for Yellowstone Cutthroat Trout within Montana" both statewide and locally. The social benefit of this effort will be the preservation of this unique and rare fish species and population, and the ability of future generations of people to use and enjoy this native fish species in its natural habitat.

G. Other Local, State or Federal agencies with overlapping jurisdiction.

U.S.D.A. Forest Service – The GNF manages all of the land on which the project is to take place. In Challenge Cost Share Agreement 11-98-CCS-27 between federal agencies and FWP, responsibilities were acknowledged as follows: "The FS (Forest Service) and BLM (Bureau of Land Management) are responsible for management of aquatic habitats and for coordination of land uses consistent with laws, rules and regulations." "FWP (Montana Fish, Wildlife and Parks) has primary responsibility for management of fish and wildlife resources within the State of Montana, including all State, Federal and Private lands." The "Conservation Agreement and Management Guidance for Westslope Cutthroat Trout (*Oncorhynchus clarki lewisi*) and Yellowstone cutthroat Trout (*O. c. bouvieri*)" within Gallatin National Forest Administered Lands, between the GNF and FWP states that "The FWP shall: …Take appropriate

actions to remove non-native trout that have potential to contaminate and/or compete with native cutthroat populations."

H. Agencies Consulted During the Preparation of the EA

USDA Forest Service, Gallatin National Forest. Big Timber/Livingston, MT. Bill Avey, Scot Shuler.

PART II. REVIEW OF ALTERNATIVES

CONSIDER MAKING THE PREFERRED ALTERNATIVE REMOVAL W/O STOCKING?

Alternative 1 - No Action.

The predicted consequence of the "No Action" alternative is a high probability that the YCT population in Meatrack Creek will become hybridized with non-native rainbow trout. Large-scale hybridization between these two species would constitute a loss of the cutthroat population and thus reduce the range of the species in the Boulder River drainage. Further, the frequency of rainbow trout and hybrid fish would likely increase in the main Boulder River because Four Mile Creek would continue to be a source of rainbows and hybrid fish. Silver and Prospect lakes would continue to provide quality rainbow trout fisheries.

Alternative 2 – Removal of Rainbow Trout Using Piscicides

A second alternative to mechanically removing rainbow trout from the lakes would be to chemically remove the fish using either rotenone or antimycin. Although the project could be completed in a much shorter time frame (one year), other factors make this alternative less feasible and acceptable than mechanical removal. Because the amount of chemical used is determined in part by the volume of water to be treated in each lake, using piscicides to treat both lakes would be more expensive. Unlike stream applications, lake treatments often require the use of mechanized equipment to transport and apply the chemicals. The use of such equipment is not condoned in wilderness areas. Piscicides also affect non-target invertebrates, and FWP is committed to reducing the impacts on non-target organisms as much as possible. The aim of this project is to effectively and efficiently remove rainbow trout and maintain wilderness values as much as possible. Mechanical removal has been selected as the preferred alternative because it will have the fewest effects on non-target organisms, maintain the wilderness characteristics of the lakes, and still accomplish the goal of rainbow trout removal.

The predicted consequences of Alternative 2 include:

- Complete and rapid removal of rainbow trout from Silver and Prospect lakes.
- Fewer impacts to trails and other camping areas due to reduced nights camped in the drainage.
- Use of mechanized equipment (i.e., helicopter and motorized boat) in the wilderness.
- Unavoidable negative impacts of piscicides on non-target invertebrate populations in the lakes.

Alternative 3 -- Removal With Simultaneous Swamping

A third alternative would include the stocking of YCT starting the first year of gill netting rather than delaying stocking for 2 years. The potential outcome of this action would be an increaase in the potential to maintain a fishery in the lake duirng the netting removal of rainbow trout. The YCT stocked into the lakes would be adipose fin clipped similar to the prefered alternative to distinguish them from wild fish; so if captured alive they could be released back into the lake. To the best of our knowledge this has never been attempted before so it is unclear whether or not a fishery for cutthroat trout could be maintained while removing rainbows. Fish mortality in gill nets set for over 4 hours is generally high because fish become exhausted and/or suffolcate in the nets. It is anticipated that net sets in Silver and Prospect lakes will be for 12 h. Because of the high mortality in gillnets it may not be possible to maintain a recreational fishery in the lake during gillnetting and the fish stocked will be captured and die in the nets. By delaying stocking for the first two years of removal, rainbow trout numbers should be severely reduced, opening up habitat and resources for the newly introduced cuttroat trout.

The predicted consequences of Alternative 3 include:

- Rainbow trout removed from the lakes at the same rate as the preferred alternative.
- The potential for maintaining a recreational fishery at the lakes for cutthroat trout during mechanical removal of rainbow trout.
- High mortality of stocked cutthroat trout in gill nets.

PART III. ENVIRONMENTAL REVIEW

Below is an environmental review checklist followed by an explanation of potential impacts and the mitigating measures that will be taken to ensure the impacts of this project will be minimized as much as possible.

A. PHYSICAL ENVIRONMENT

1. LAND RESOURCES **Will the proposed action result in:**	**IMPACT Unknown**	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Explanation Index**
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		X				
c. Destruction, covering or modification of any unique geologic or physical features?		X				

1. LAND RESOURCES (Cont'd.) Will the proposed action result in:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Explanation Index
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
2. WATER **Will the proposed action result in:**	**IMPACT Unknown**	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Explanation Index**
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		X				
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of flood water or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. Will the project affect a designated floodplain?		X				
m. Will the project result in any discharge that will affect federal or state water quality regulations? (Also see 2a)		X				

3. AIR Will the proposed action result in:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Explanation Index
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))		X				
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. Will the project result in any discharge that will conflict with federal or state air quality regs?		X				

4. VEGETATION Will the proposed action result in:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Explanation Index
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			X		YES	4a
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?		X				4e
f. Will the project affect wetlands, or prime and unique farmland?		X				

4a. Because personnel and livestock will be at and near the lakes for an approximate period of 2 weeks each year, there will be some impacts on the vegetation at campsites. Selecting campsites in treed areas or using existing campsites can mitigate these impacts. Wilderness camping policies will be followed during this project. Exceptions to wilderness guidelines will only be used if cleared first by the GNF, Big Timber Ranger District.

4e. The use of weed free feed is required by the GNF and will be used during this project to feed livestock that carry equipment.

5. FISH/WILDLIFE Will the proposed action result in:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Explanation Index
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?			X		NO	5b
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?			X		YES	5d
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. Will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f)			X		YES	5h.
i. Will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)		X				

Comment 5b: The proposed action is expected to result in an increase in native YCT and a decrease in non-native rainbow trout (both are considered game fish in Montana). The loss of rainbow trout from Silver and Prospect lakes is considered only a minor impact because the fisheries will be replaced with a YCT fishery. Further, many rainbow trout will remain in the nearby Boulder River and lakes of the Lake Plateau located between the Stillwater and Boulder River drainages. The project will increase YCT distribution, a unique and potentially endangered species with limited distribution in the Yellowstone River basin. The increase in YCT associated with this project will help ensure their long-term persistence in Four Mile Creek and the Boulder River.

Comment 5d: YCT have been stocked into Silver Lake, but not Prospect Lake. The impacts of introducing this new species into the lake should be minimal, however, because the lake is currently populated by rainbow trout, a similar fish species. It is anticipated that the future cutthroat trout fishery will have similar impacts on invertebrate organisms (no amphibians are present at the lakes) as the current population of rainbow trout.

Comment 5h: The proposed project will occur within the known range of the grizzly bear, wolf and lynx. Impacts to these animals and there habitat should be minimal as a result of this project. Food storage orders will be followed to reduce potential encounters with bears and all fish captured will be disposed of

by sinking carcasses in the deepest portions of the lakes. Activities will be directed away from any know or suspected critical habitat for any of the listed species known to occur in the area.

B.HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS Will the proposed action result in:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Explanation Index
a. Increases in existing noise levels?			X		Yes	6a
b. Exposure of people to severe or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				

6a. Although the helicopter used for this project will not land in the wilderness, the use of a helicopter will increase noise levels in the wilderness area. To mitigate these impacts, the number of flights will be minimized as much as possible. Helicopter flights will include an initial flight over the lakes in June to check ice and trail conditions. Additional flights will be made to ferry equipment and personnel into Prospect Lake. Equipment for Silver Lake will be transported using horses.

7. LAND USE Will the proposed action result in:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Explanation Index
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflict with a designated natural area or area of unusual scientific or educational importance?			X		YES	7a
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				

7b. Silver and Prospect Lakes are entirely within the A-B Wilderness Area. By performing this project, human impacts on the drainage will temporarily increase. Minimizing the number of people and the duration of stay at the lakes can mitigate these impacts. It is anticipated that between 4 and 10 people will be necessary to transport equipment into the area and to net the lakes. Between 4 and 10 horses/mules will be required to pack the necessary equipment and feed into and out of the lakes.

8. RISK/HEALTH HAZARDS **Will the proposed action result in:**	**IMPACT Unknown**	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Explanation Index**
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. Will any chemical toxicants be used?		X				

8d. Address the possible use of a piscicide in the stream.

9. COMMUNITY IMPACT **Will the proposed action result in:**	**IMPACT Unknown**	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Explanation Index**
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				

10. PUBLIC SERVICES/TAXES/UTILITIES Will the proposed action result in:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Explanation Index
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify: _____		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased used of any energy source?		X				
e. Define projected revenue sources			X		YES	10e
f. Define projected maintenance costs		X				

10e: This proposed project would be accomplished cooperatively using personnel time contributed by the FWP, GNF, and the Back Country Horsemen. Equipment costs include the purchase of gill and block nets. The expense of helicopter time will also be included in the project. Funding for the purchase of nets and to reimburse the Back Country Horsemen group for their travel costs will come from FWP. The costs of equipment and other services for this project are outlined in the budget listed below. The implementation of this project will be accomplished through a commitment of 96 person-days per year from agency biologists, field workers and volunteers from 2006 – 2011 (numbers shown in table are maximum number of individuals per year).

Project Budget (excluding personnel time and previously procured equipment)

Expense	Amount	Cost/unit	Cumulative Cost
100' Monofilament gill nets	10	$286	$2,860
125' Multifilament gill nets	8	$190	$1,520
Block nets	6	$442	$2,650
Helicopter time	3	$300	$900
Back Country Horsemen Travel	8	$1,232	$9,856
Other Equipment			$300

Total	$18,086

Breakdown of person-days

Activity	# people	# days	Person/days
FWP biologist	1	8	8
FWP technicians	4	8	32
USFS Biologist	1	8	8
Volunteers	6	8	48
		Total	96

11. AESTHETICS/RECREATION **Will the proposed action result in:**	**IMPACT Unknown**	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Explanation Index**
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report)			X		YES	11c
d. Will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c)			X		YES	11d

Comment 11c: The fisheries in Silver and Prospect lakes will be affected during the removal of rainbow trout. Despite the simultaneous stocking of YCT, fishing quality (i.e., the numbers and sizes of fish) will likely be temporarily reduced during netting. This affect, however, should be temporary, and the numbers and sizes of YCT should be near those of rainbow trout within 2-3 years of completion of the project. Many backcountry users also angle in wilderness lakes. The backcountry and angling use of Silver and Prospect lakes has not been quantified, but the area appears to receive a fair amount.

Comment 11d. Phase 1 of the project will occur entirely within the A-B Wilderness Area. Camping, the use of livestock, and fish removal all are impacts to the wilderness area. The camping and livestock impacts will be mitigated by following FS camping specifications and food-order restrictions, and by coordinating exemptions to these regulations with the Big Timber Ranger District. Disposing of fish carcasses in deep areas of the lakes will mitigate the impacts of netting of the lakes on wilderness values. No other fish species are present in the lakes, and no amphibian or other aquatic birds or mammals have been observed at the lakes.

12. CULTURAL/HISTORICAL RESOURCES Will the proposed action result in:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. Will the project affect historic or cultural resources?		X				

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Explanation Index
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. Is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e)		X				

g. List any federal or state permits required.		X				13g

Comment 13g: Although no permit is required for this phase of the project, a letter of support for the project including specific Forest Service regulations and exemptions from the Big Timber Ranger District will be given to FWP.

PART IV. ENVIRONMENTAL ASSESSMENT CONCLUSION SECTION

A) Is an EIS required? No

This environmental review demonstrates that the impacts of this proposed project are not significant. The proposed action would benefit YCT in Meatrack Creek, Four Mile Creek and the main Boulder River with minimal impact on the physical, biological, or the human environment.

B) Public Involvement.

The Draft EA for the Yellowstone cutthroat trout restoration project in Silver and Prospect lakes will be released for a 30-day public comment period beginning May 26, 2006. A public meeting will be scheduled to answer questions and address concerns. Additional meetings may be held if warranted. Public notification of the proposed action will be completed via press releases to south-central Montana newspapers, and publishing a Legal Notice in the Billings Gazette. EA's will be sent to individuals who have expressed an interest in the YCT recovery program in Four Mile Creek. The Boulder River Watershed Group will be notified of the project public meeting and invited to comment.

C) Duration of the comment period?

Public comment will be accepted through June 30, 2006.

D) Name, title, address and telephone number of the Person Responsible for Preparing the EA Document.

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References

FWP, Crow Tribe, Montana Department of Environmental Quality, Montana Department of Natural Resources and Conservation, USDS Forest Service Custer and Gallatin National Forests, USDI Bureau of Land Management, USDI Fish and Wildlife Service, USDI Bureau of Indian Affairs, and Yellowstone National Park. 2000. Cooperative Conservation Agreement for Yellowstone cutthroat trout within Montana. Montana Fish Wildlife and Parks, Helena, MT.

Olsen, J.R. 2006. Mid-Yellowstone drainage investigations. Montana Fish, Wildlife and Parks, Fisheries Division F-113-R-1, 2. Jan.1, 2003 through Jan 1, 2006.

USDA Forest Service, Gallatin/Custer National Forests, Regions 3/5 Montana Fish, Wildlife and Parks, and USFWS Montana Technical Assistance Office. 1998. Yellowstone cutthroat trout, current status assessment and conservation recommendations within the State of Montana. Executive summary.