2300 Lake Elmo Drive
Billings, MT 59105
July 6, 2004

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

Montana Historical Society, State Preservation Office
Janet Ellis, Montana Audubon Council
Montana Wildlife Federation
Montana State Library
George Ochenski
Commissioner Dan Walker
Montana Environmental Information Center
Sharon Moore, DNRC Area Manager, Southern Land Office
U.S. Fish and Wildlife Service
American Fisheries Society, Montana Chapter
Yellowstone River Parks Association
Magic City Fly Fishers
Federation of Fly Fishers
Walleyes Unlimited, Billings Chapter
Montana Pike Masters, Billings Chapter
Adjacent Landowners

Ladies and Gentlemen:

Attached, for your review, is a draft Environmental Assessment for removal of brook trout from the Brushy Fork and West Fork of Willow Creek. This project is intended to protect a rare, native population of Yellowstone cutthroat trout by removing the competitive influence of brook trout. The project will be limited to a 2.5 mile section of stream approximately split by Highway 78. Any questions about this project should be directed to Jim Olsen (328-4636) or Jim Darling (247-2961). Comments should be addressed to the undersigned by July 20, 2004.

Sincerely,

Harvey E. Nyberg
Regional Supervisor
hnyberg@state.mt.us

DRAFT

Environmental Assessment for Yellowstone Cutthroat Trout Recovery

Montana Department of Fish, Wildlife and Parks
2300 Lake Elmo Drive, Billings, MT 59105

Project: **Eastern brook trout relocations in the Brushy Fork (and West Fork) of Willow Creek to relieve competitive pressure on Yellowstone cutthroat trout (YCT) populations.**

Division: Fisheries

Description of Project: Eastern brook trout will be removed from headwater portions of the Brushy Fork and West Fork of Willow Creek for up to 10 years via electrofishing and where feasible relocated to the lower portions of these streams below beaver dams that are barriers to upstream fish passage. This action will benefit remnant Yellowstone cutthroat populations.

POTENTIAL IMPACT ON THE PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution				X		
3. Geology & soil quality, stability and moisture				X		
4. Vegetative cover, quantity & quality			X			X
5. Aesthetics				X		
6. Air quality				X		
7. Unique, endangered, fragile or limited environmental resources		X				X
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreation and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution and density of population & housing				X		
10. Demands for government services				X		X
11. Industrial and commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flow				X		

Other groups or agencies contacted or which may have overlapping jurisdiction:
List of all agencies and individuals who have been notified of this proposed transfer: Public notification via the State of Montana electronic bulletin board, direct mail to landowners on the stream.
Individuals or groups contributing to this EA: Jim Olsen FWP Biologist;
Recommendation concerning preparation EIS: No EIS required. Action is expected to be minor.
EA prepared by Brad Shepard and Patrick Byorth, Fisheries Biologists, Montana Fish, Wildlife & Parks
Date: July 6, 2004
Comments will be accepted until: July 20, 2004
Comments should be sent to: Jim Darling, Montana Fish, Wildlife and Parks
2300 Lake Elmo Drive, Billings, MT 59105

ENVIRONMENTAL ASSESSMENT
YELLOWSTONE CUTTHROAT TROUT RECOVERY
EASTERN BROOK TROUT SUPPRESSION
IN SOUTHCENTRAL MONTANA STREAMS

I. DESCRIPTION OF PROPOSED ACTION

A. Description of water body and action:

Water	Drainage	County	Location	Stream Miles	Water Code
Brushy Fork Willow Creek	Clarks Fork Yellowstone River	Carbon	T7S R20E S8,17,18,19	About 2.5	22-0865

The Brushy Fork and the West Fork Willow Creek arise at the base of the Limestone Palisades on the Beartooth Face in springs, flowing approximately 4 miles north to confluence with Willow Creek (Figure 1). The streams flow through mixed agricultural and subdivision ownership. Extensive beaver pond complexes serve as a barrier to keep brown trout out of upper reaches where Yellowstone cutthroat still occur along with brook trout. This is apparently the only remaining pure Yellowstone cutthroat population in the Clarks Fork of the Yellowstone drainage, making it a valuable Conservation Population under the Cooperative Conservation Agreement for Yellowstone Cutthroat Trout Within Montana (FWP 2000).

Pure, unhybridized Yellowstone cutthroat trout (YCT) are restricted to limited habitat in the Clarks Fork of the Yellowstone drainage and are threatened by brook trout displacement, competition, and predation. Brook trout will be removed by backpack electrofishing in the headwater reaches of these streams and euthanized. A sample of up to 120 brook trout will be sacrificed for fish health screening. Standard electrofishing methods will be followed to minimize trauma to YCT. Monitoring of YCT populations will continue from 1-3 years following removal and relocation of brook trout to determine the success of brook trout removal and its affect on YCT populations.

B. Need For Action:

This pure headwater Yellowstone cutthroat trout (YCT) population is restricted due to limited habitat and is threatened by brook trout displacement and competition. Surveys by Montana Fish, Wildlife and Parks indicate that YCT are only found in the uppermost reach of these streams and their reproductive success is poor due to the presence of brook trout. Brook trout removal via electrofishing is presently seen as an interim measure to provide temporary protection to YCT from brook trout predation and competition. Long-term options to protect this population are being evaluated. Preservation of this YCT population is important. It is estimated that Yellowstone cutthroat trout are genetically unaltered in a minimum of 17% of their current range and 7% of their historic range (May et al. 2003). Conservation of genetic diversity in Yellowstone cutthroat requires preservation of many populations (Allendorf and Leary 1988). These actions follow recommendations made in the Conservation Agreement for Yellowstone Cutthroat Trout in Montana (FWP 2000). A primary goal of the conservation strategy is to protect existing YCT populations. The U.S. Fish and Wildlife Service recently completed a status review that determined that YCT were not warranted for listing as a threatened and endangered species under the Endangered Species Act (Kaeding 2001). A lawsuit challenging this finding has been filed and is presently in the court system. Recovery actions like this may preclude Federal listing and will aid recovery regardless of

listing. The status review cited efforts like this proposed action as part of on-going actions that made this subspecies not warranted for listing under ESA.

II. IMPACTS OF THE PROPOSED ACTION

Please review the attached checklist. The impacts of this action are included in the Environmental Assessment checklist and the following text addresses the impacts.

A. Impacts to the physical environment

1) **Terrestrial and Aquatic Life and Habitats**

Brook trout numbers will be temporarily reduced in areas where they are removed and may increase slightly in areas to which they are relocated. We do not anticipate that brook trout abundance will increase dramatically in relocation areas because in most cases habitat in these areas are probably nearly saturated with brook trout or brown trout. Brook trout populations may rebound in areas from which they are removed 2-3 years after their removal. However, conducting repeated removals might effectively eliminate brook trout, or at least reduce their numbers and competition with YCT for at least 5 years. Brook trout are common throughout the area and the small extent of areas of suppression should have no effect on species survival, and minimal impact on angling opportunities, even if they are eliminated in the removal reach.

Minor brushing will be done along these streams prior to electrofishing to increase efficiency of electrofishing. This brushing will consist of removal of overhanging vegetation with chainsaws and clippers that will allow crews to work up the stream channel. Re-growth of pruned vegetation following treatments will probably be fast and pruning may actually enhance vegetation growth. Any brush removed from the stream channel will be replaced after fish removals are complete.

Active beaver ponds exist throughout the Brushy Fork drainage. Several of the dams impounding water in these ponds will be breached immediately prior to electrofishing treatments to allow for more efficient removal of brook trout. Since beaver currently occupy this portion of the creek, these beaver dams will probably be repaired within 48 hours following their breaching.

7) **Unique, endangered, fragile or limited environmental resources**.

This proposed action should have a positive impact to the YCT population. YCT is a Montana Species of Special Concern. Standard electrofishing methods will be followed to minimize trauma to YCT.

All habitat actions to enhance electrofishing efficiency (brushing and beaver dam breaching) will be very short-term impacts and brushing may enhance re-growth of overhanging streamside vegetation.

B. Impacts to the human environment

7) Access to and Quality of Recreational Activities

Angling pressure is low in the Brushy Fork of Willow Creek. However, angling harvest in the affected reach may be reduced. However, in all cases, opportunities for harvest exist nearby. Angler opportunity will not change, since anglers will still be allowed to fish for YCT populations. Restoration of YCT diversifies angling opportunities since this native species is now rare in streams of the Clark's Fork of the Yellowstone basin.

10) Demands on Government Services

This action will require approximately 10 days to complete. and will be undertaken by state fisheries staff as part of normal field operations. Resources dedicated to this project may result in postponing other fisheries projects. Monitoring to determine the success of these brook trout relocations on populations of Yellowstone cutthroat trout will be done for 1 to 3 years following the relocations.

III. Discussion of Reasonable Alternatives

1) The **"No Action" Alternative** would result in a higher possibility that the YCT population in this stream would become extinct. There would be no impacts on angler harvest.

2) Application of piscicides would provide a more complete removal. However, such a project is much more expensive, would have greater impact on aquatic life, and would require a more thorough assessment of impacts

IV. Environmental Assessment Conclusion Section

1) Is an EIS required? No

This action is expected to be minor and beneficial.

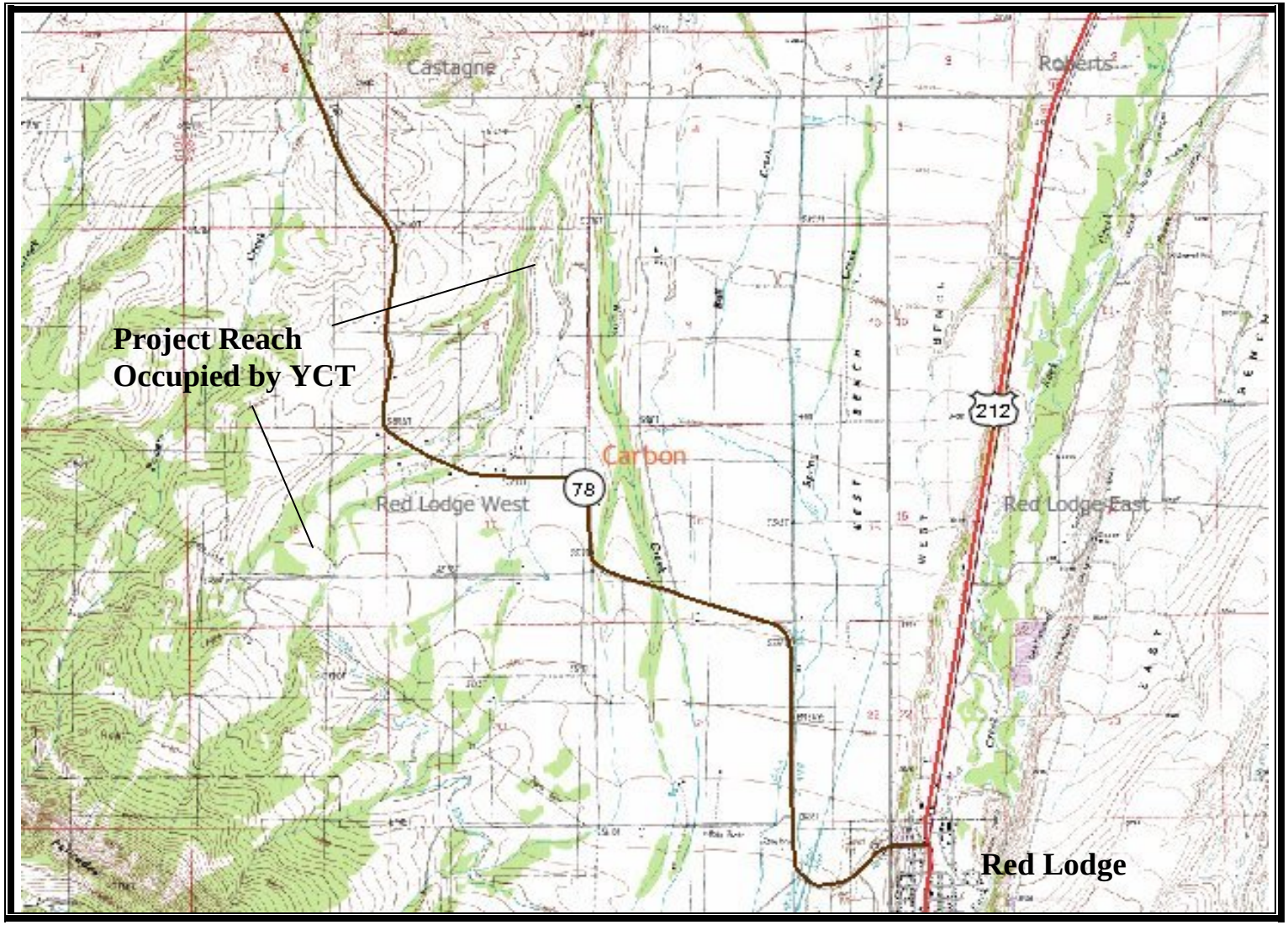
V. References

Allendorf, F.W. and R.F. Leary. 1988. Conservation of distribution of genetic variation in a polytypic species the cutthroat trout. Conservation Biology 2: 170-184.

Kaeding, L.R. 2001. Endangered and Threatened Wildlife and Plants: 90-day finding for a petition to list the Yellowstone cutthroat trout as threatened. Federal Register 66(37):11244-11249.

May, B.E. and eight co-authors. 2003. Rangewide status of Yellowstone cutthroat trout (Oncorhyncus clarki bouveri) 2001. Gallatin National Forest, USDA Forest Service, Bozeman, MT.

Montana Department of Fish, Wildlife and Parks. 2000. Cooperative Conservation Agreement for Yellowstone Cutthroat Trout within Montana. Fisheries Division, Montana Department of Fish, Wildlife and Parks, Helena.



igure 1. Vicinity map of brook trout removal project.