



Montana Fish, Wildlife & Parks

2300 Lake Elmo Drive
Billings, MT 59105
June 11, 2009

TO:

Environmental Quality Council
Director's Office, Dept. of Environmental Quality
Mike Volesky, Governor's Office*
Janet Ellis, Montana Audubon Council
Montana State Library
Montana Environmental Information Center
FWP Commissioner Shane Colton*
County Commissioners
Yellowstone River Trout Hatchery
Montana Fish, Wildlife & Parks*

Director's Office	Lands Section
Parks Division	Design & Construction
Fisheries Division	Legal Unit
Wildlife Division	Regional Supervisors

* (Sent electronically)

David Moore, DNRC Area Manager, Southern Land Office
Sarah Elliott, Press Agent, Governor's Office*
Montana Historical Society, State Preservation Office
Montana Wildlife Federation
George Ochenski
Wayne Hirst, Montana State Parks Foundation
Other Local Interested People or Groups
Burnt Leather Ranch
Scott Barndt, USFS Bozeman
Scott Shuler, USFS Livingston

Ladies and Gentlemen:

Attached for your review is a draft Environmental Assessment (EA) for stocking Yellowstone cutthroat trout into Lake McKnight, a high mountain lake in the Davis Creek drainage, which flows into the West Boulder River in the Absaroka-Beartooth Wilderness Area southwest of Big Timber, Montana. Lake McKnight has historically been stocked with golden trout. Research in 2007, however, discovered a genetically pure population of Yellowstone cutthroat trout extending to the headwaters of Davis Creek, highlighting the need to protect this population from hybridization with golden trout. The action proposed in this EA is to discontinue stocking golden trout into Lake McKnight, and replace the golden trout fishery with Yellowstone cutthroat trout.

Any questions should be directed to Jeremiah Wood (328-4594) or Ken Frazer (247-2961). Written comments should be addressed to the undersigned by July 13, 2009.

Thank you for your interest,

Gary Hammond
Regional Supervisor
ghammond@mt.gov

ENVIRONMENTAL ASSESSMENT CHECKLIST

PART 1. PROPOSED ACTION DESCRIPTION

Project Title: Yellowstone Cutthroat Trout Introduction into Lake McKnight

Date: May 20, 2009

Name, Address and Phone Number:

Ken Frazer
Regional Fisheries Manager
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Project Location: Lake McKnight is a high mountain lake in the Davis Creek drainage, which flows into the West Boulder River in the Absaroka-Beartooth Wilderness Area southwest of Big Timber, Montana (Figure 1). Although historically fishless, the lake was stocked with golden trout periodically from 1982-2005. Nearby, Upper McKnight Lake also contains (or contained) golden trout due to its close proximity and connectivity to McKnight. McKnight and Upper McKnight are the only two lakes in the Davis Creek drainage with golden trout. The rest of the drainage includes a few small fishless lakes, two lakes containing populations of Yellowstone cutthroat trout, and approximately 8-10 miles of Davis Creek. Research in 2007 discovered a genetically pure population of Yellowstone cutthroat trout extending to the headwaters of Davis Creek, highlighting the need to protect this population from hybridization with golden trout.



Figure 1. Map of project area in upper Davis Creek drainage.

Description of Project:

The distribution and abundance of Yellowstone cutthroat trout (*Oncorhynchus clarki bouvieri*; YCT) have declined from historical levels throughout most of their range. In Montana, Idaho and Wyoming, YCT currently occupy less than 60% of their historically occupied 17,397 miles of habitat, and of these only 7-25% are genetically pure populations of fish (May et al. 2003). YCT are a species of special concern in the state of Montana and on the Sensitive Species List for R1 of the US Forest Service. Many populations have been in decline or have disappeared, mainly due to the introduction of non-native fish species, which compete with, prey upon, and hybridize with YCT.

Lake McKnight, like the other lakes in the Davis Creek drainage, was historically fishless. Golden trout were first introduced here in 1982. The lake contains an ample forage base for fish, and provides hikers with an opportunity to catch large fish in a remote and fairly inaccessible

setting. Because of the lack of spawning habitat in the lake, golden trout have not been able to successfully reproduce, requiring periodic stocking to maintain the fishery.

Davis and Blacktail Lakes, also in the Davis Creek drainage, were historically stocked with Yellowstone cutthroat trout (YCT) and presently contain genetically pure YCT populations. Additionally, Davis Creek was historically stocked with YCT and recent research has identified a healthy, genetically pure YCT population throughout a large portion of the creek. Barrier waterfalls prevent upstream movement from fish in the West Boulder River, and subsequently protect this population from competition and hybridization. Upstream in Lake McKnight, however, golden trout have the potential to move downstream into the Davis Creek system and breed with the resident YCT. While such interbreeding has not yet been documented, the long term risk that is presented by golden trout in Lake McKnight is probably not worth continuing a golden trout program here.

We propose to discontinue stocking of golden trout in Lake McKnight, and replace the golden trout fishery with Yellowstone cutthroat trout. If YCT move downstream from Lake McKnight into Davis Creek, they pose no threat to the genetic integrity of the YCT population anywhere in the drainage. Because golden trout do not currently reproduce in the lake, it is unlikely that YCT will reproduce successfully here either. The lake will be maintained through periodic stocking of YCT into the future, unless natural reproduction occurs in the lake. Stocking rates will be adjusted through periodic monitoring to maintain a healthy balance between the fish population and its food base, similar to the current stocking program administered in other lakes throughout the region. Because YCT are more available in FWP's hatchery system, rates and intervals of fish stocking will be much more consistent in Lake McKnight under a YCT management program.

Other groups or agencies contacted or which may have overlapping jurisdiction:

Lake McKnight is within the Gallatin National Forest (GNF) and the Absaroka-Beartooth Wilderness Area. Fisheries management within wilderness areas is unlike that outside the wilderness area in that fisheries management should emphasize native species and that any changes in management are to be coordinated with local forests. This project is consistent with fish population and habitat management goals and objectives for streams within the GNF. The goals of this project are consistent with USFS sensitive species management goals, and specific goals and objectives outlined in the Cooperative Conservation Agreement for Yellowstone Cutthroat Trout within Montana (CCA 2000) entered into by several state and federal resource management agencies including FWP and the GNF.

PART 2. ENVIRONMENTAL REVIEW

1. POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

WILL THE PROJECT RESULT IN POTENTIAL IMPACTS TO:	UNKNOWN	POTENTIALLY SIGNIFICANT	MINOR	NONE	CAN BE MITIGATED	COMMENTS PROVIDED
1. Unique, endangered, fragile or limited environmental resources			X			1.1
2. Terrestrial or aquatic life and/or habitat			X			1.2
3. Introduction of a new species into an area			X			1.3
4. Vegetation cover, quantity and quality				X		
5. Water quality, quantity and distribution (surface or groundwater)				X		
6. Existing water right or reservation				X		
7. Geology and soil quality, stability and moisture				X		
8. Air quality or objectionable odors				X		
9. Historical and archaeological sites				X		
10. Demands on environmental resources of land, water, air & energy				X		
11. Aesthetics				X		

Comments

1.1. Unique, endangered, fragile, or limited environmental resources

The Yellowstone cutthroat trout is listed as a "Species of Special Concern" in Montana and is classified as a Sensitive Species by the GNF. The intent of this project is to protect a wild, genetically pure, self-sustaining population of YCT, a highly valued native fish species and the only indigenous trout species in the Yellowstone drainage. If hybridization with golden trout is prevented, this important stronghold for YCT will likely remain healthy long into the future, decreasing the possibility of their extinction within the drainage.

1.2. Terrestrial or aquatic life and/or habitat

The introducing of YCT will have direct impacts on invertebrate and vertebrate organisms through direct predation. However, YCT and golden trout feeding habits are very similar, and therefore no difference in impacts to these organisms is expected with a shift to YCT management.

1.3. Introduction of a new species into an area

See comment 1.2.

2. POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

WILL THE PROJECT RESULT IN POTENTIAL IMPACTS TO:	UNKNOWN	POTENTIALLY SIGNIFICANT	MINOR	NONE	CAN BE MITIGATED	COMMENTS PROVIDED
1. Social structures and cultural diversity				X		
2. Changes in existing public benefits provided by wildlife populations and/or habitat			X			2.2
3. Local and state tax base and tax revenue				X		
4. Agricultural production				X		
5. Human health				X		
6. Quantity and distribution of community income				X		
7. Access to and quality of recreational activities			X			2.7
8. Locally adopted environmental plans & goals				X		
9. Distribution and density of population and housing				X		
10. Demands for government services				X		
11. Industry and/or commercial activity				X		

Comments

2.2. Changes in the existing public benefits provided by wildlife populations and/or habitat

By establishing a population of YCT in Lake McKnight, recreational opportunities to catch wild cutthroat trout will increase. However, recreational opportunities to catch golden trout, a unique nonnative species present in some wilderness lakes, will decrease. This lost opportunity will be minimized, however, because:

- 1) An opportunity to fish for trout will still be present in Lake McKnight.
- 2) The relatively remote location of Lake McKnight means that few people fish here, therefore the loss of recreationists traveling to Lake McKnight to catch golden trout will likely be minimal.
- 3) Because FWP hatcheries do not maintain a steady source of golden trout brood, stocking opportunities are often fewer and farther between than YCT stocking. This means that stocked golden trout waters do not provide the consistent, predictable and dependable fishing opportunities that YCT stocking will provide.
- 4) There are a number of other waters where anglers can fish for golden trout in the Absaroka-Beartooth Wilderness. 23 A-B Wilderness lakes support primary fisheries for golden trout. Of these, approximately 8 support self-sustaining golden trout populations; while about 15 of these lakes are supported by periodic stocking.

2.7. Access to and quality of recreational activities

The primary purpose for the change from golden trout to YCT management in Lake McKnight is to reduce the threat of hybridization to an existing YCT population while maintaining a recreational fishery for backcountry users. By establishing a YCT population in Lake McKnight, opportunities to fish for native cutthroat trout will be expanded, but it is unlikely that substantial fishing pressure will occur because of the relative remoteness of the lake. An increase in human use as a result of YCT introduction is not anticipated.

Does the proposed action involve potential risks of adverse effects that are uncertain but extremely harmful if they were to occur?

No

Does the proposed action have impacts that are individually minor, but cumulatively significant or potentially significant?

No

Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action when alternatives are reasonably available and prudent to consider. Include a discussion of how the alternatives would be implemented:

1. The "No Action" Alternative

If no action is taken the following consequences are likely to result:

It is possible that golden trout stocked into Lake McKnight would eventually move downstream into the Davis Creek drainage and interbreed with the genetically pure YCT population present in the creek. This would compromise

one of the few remaining pure populations of stream-dwelling YCT in the mid-Yellowstone drainage, and threaten the long-term persistence of the species.

2. Discontinue all fish stocking in Lake McKnight

By discontinuing all stocking of fish in Lake McKnight, the hybridization threat to YCT in Davis Creek would be eliminated. However, this would also mean the elimination of a recreational fishery in McKnight and Upper McKnight Lakes.

FWP prefers that the lakes continue to provide a recreational fishery for backcountry users. Because the lake is within the wilderness area, changes in fisheries management should emphasize native or threatened or endangered species, which further supports the change in management from golden trout to YCT.

Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None

Individuals or groups contributing to, or commenting on this EA:

EA prepared by: Jeremiah Wood, Regional Fisheries Biologist, Montana Fish, Wildlife and Parks

Date Completed: May 20, 2009

Mail comments to:

Ken Frazer
Regional Fisheries Manager
Montana Fish, Wildlife and Parks
2300 Lake Elmo Dr.
Billings, MT 59105

Comments due by: July 13, 2009

References

- Cooperative Conservation Agreement. 2000. Cooperative conservation agreement for Yellowstone cutthroat trout within Montana between Crow Tribe, Montana Department of Fish, Wildlife and Parks, Montana Department of Environmental Quality, Montana Department of Natural Resources and Conservation, USDA Forest Service Gallatin and Custer National Forests, USDI Bureau of Land Management, USDI Fish and Wildlife Service, USDI Bureau of Indian Affairs, and Yellowstone National Park. Montana Department of Fish, Wildlife and Parks, Helena, Montana.
- Marcuson, P. E. 1980. Fisheries Management Plan for Mountain Lakes of the Boulder River Drainage, Montana. Department of Fish and Game, Billings, MT.
- May, B. E., Urie, W., Shepard, B. B., and Montana Cooperative Fishery Research Unit. 2003. Range-Wide Status of Yellowstone Cutthroat Trout (*Oncorhynchus clarki bouvieri*): 2001. Bozeman, MT.

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

The 54th Legislature enacted the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The intent of the legislation is to establish an orderly and consistent process by which state agencies evaluate their proposed actions under the "Takings Clauses" of the United States and Montana Constitutions. The Takings Clause of the Fifth Amendment of the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." Similarly, Article II, Section 29 of the Montana Constitution provides: "Private property shall not be taken or damaged for public use without just compensation..."

The Private Property Assessment Act applies to proposed agency actions pertaining to land or water management or to some other environmental matter that, if adopted and enforced without compensation, would constitute a deprivation of private property in violation of the United States or Montana Constitutions.

The Montana State Attorney General's Office has developed guidelines for use by state agency to assess the impact of a proposed agency action on private property. The assessment process includes a careful review of all issues identified in the Attorney General's guidance document (Montana Department of Justice 1997). If the use of the guidelines and checklist indicates that a proposed agency action has taking or damaging implications, the agency must prepare an impact assessment in accordance with Section 5 of the Private Property Assessment Act. For the purposes of this EA, the questions on the following checklist refer to the following required stipulation(s):

(LIST ANY MITIGATION OR STIPALTIONS REQUIRED, OR NOTE "NONE")

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PRIVATE PROPERTY ASSESSMENT ACT?

- | YES | NO | |
|------------|--------------|---|
| _____ | <u> X </u> | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? |
| _____ | <u> X </u> | 2. Does the action result in either a permanent or indefinite physical occupation of private property? |
| _____ | <u> X </u> | 3. Does the action deprive the owner of all economically viable uses of the property? |
| _____ | <u> X </u> | 4. Does the action deny a fundamental attribute of ownership? |

- _____ X 5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If the answer is **NO**, skip questions 5a and 5b and continue with question 6.]
- _____ _____ 5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
- _____ _____ 5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
- _____ X 6. Does the action have a severe impact on the value of the property?
- _____ X 7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? [If the answer is **NO**, do not answer questions 7a-7c.]
- _____ _____ 7a. Is the impact of government action direct, peculiar, and significant?
- _____ _____ 7b. Has government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
- _____ _____ 7c. Has government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if **YES** is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if **NO** is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with Section 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.