

Montana Fish, Wildlife and Parks

ENVIRONMENTAL REVIEW OF FISH INTRODUCTION INTRODUCTION OF WESTSLOPE CUTTHROAT TROUT INTO WOOD LAKE

Proposed Action:

To stock westslope cutthroat trout (WCT) *Oncorhynchus clarki lewisi* from hatchery brood stock into Wood Lake.

Need for Action:

The decline of WCT throughout their historic range is well documented. It is the Montana State Fish and a Species of Special Concern. Genetically pure WCT are thought to occupy about 5-13% of their historic range in the Missouri River system and most individual populations occupy less than six miles of habitat (Shepard et al. 1997). The conversion from stocking rainbow trout (RB) *Oncorhynchus mykiss* to WCT is being proposed to provide a fishery for this native fish in Wood Lake. Although not native to this drainage, WCT are native to this locale. Stocked WCT have produced excellent fisheries in other lakes in Montana.

Description of water body:

Name: Wood Lake location: T19N R9W S6
Water Code: 20-8550
County: Lewis & Clark

Drainage where pond is located:

Wood Lake is located on upper Wood Creek in the headwaters of the South Fork Sun River approximately 20 miles west of Augusta, MT. Wood Creek is a tributary to Straight Creek, which enters the South Fork Sun River approximately 11 miles upstream of its mouth at Gibson Reservoir.

Species proposed for introduction and stocking history:

WCT are proposed for introduction into Wood Lake. Rainbow trout were first stocked in Wood Lake in 1931. They were also stocked in 1949, 1950 and annually since 1963. An undesignated species of cutthroat trout was stocked periodically between 1933 and 1961. Brook trout *Salvelinus fontinalis* were stocked in 1938 and 1940 thru 1944. Brown trout *Salmo trutta* were stocked in 1949. Fish, Wildlife & Parks (FWP) stocking records indicated bull trout *Salvelinus confluentus* were stocked into Wood Lake in 1959. It is not known if stocked bull trout survived, although an absence of suitable spawning habitat would have led to their eventual aging and extirpation.

Species of Special Concern in the drainage

None in proximity of Wood Lake. The Sun River drainage above the falls at present day Diversion Dam is thought to have been fishless prior to stocking by FWP and private individuals in the early 1900s.

Fluvial Arctic Grayling (GR) *Thymallus arcticus*, a Montana Species of Special Concern, were introduced into the North and South Forks of the Sun River in 1999, 2000, and 2001. Angler reports and FWP surveys indicate few stocked GR remain in either fork. FWP surveys completed in June 2005 observed several GR below the falls on the South Fork Sun River. Additionally, recent surveys indicated a small population originating from the North and South Fork Sun introductions now inhabits Gibson Reservoir as a result of downstream migration. More recent and future grayling introduction efforts are focusing on incubating and hatching grayling eggs onsite at several locations in the upper North Fork Sun River. Thus far, it is preliminary to know the success of these efforts.

RISKS:

Potential for impacts on genetic structure of existing fish populations:

None Minor Major

Pure WCT from the State of Montana Hatchery System will be used. Beaver dams located downstream of Wood Lake will limit but not preclude movement of WCT into suitable spawning habitat. Juvenile cutthroat trout will not compete well with the abundant brook population in Wood Creek. It is possible during a precipitation event stocked WCT will escape into Wood Creek and eventual downstream immigration into Straight Creek and the South Fork Sun River is likely. WCT will have no deleterious impacts on the genetics of the cutthroat trout x RB hybrids already found in these waters.

Impacts to any life stage of existing fish populations due to competition and/or predation?

None Minor Major

No impacts to the existing rainbow trout population are expected; stocking densities will remain similar to historic rates.

Impacts to other forms of aquatic life that may be caused by this introduction?

None Minor Major

WCT will consume some invertebrates in Wood Lake. However, because WCT and rainbow trout have similar life history requirements and stocking rates will remain similar, impacts to the aquatic community are not expected to change from those resulting from the current management strategy.

Potential for the proposed new species to reproduce in this location:

None Minor Major

It is unlikely WCT will successfully reproduce in Wood Lake or the small, intermittent stream above the lake. If escapement from Wood Lake occurs, it is possible WCT will reproduce in Wood Creek, Straight Creek, South Fork Sun River, and associated tributaries. However, hybridized cutthroat and rainbow trout are already present in these waters.

If necessary, would it be feasible to remove this species after it has been stocked?

Wood Lake has experienced summer- and winterkills on occasion. The last reported winterkill occurred during 2004. Cessation of stocking would reduce the population over a period of several years as stocked fish senesce and die-off or are harvested. It may be possible to chemically treat Wood Lake to remove introduced WCT, but this would be costly.

Would this introduction result in impacts that are individually limited, but cumulatively considerable?

No.

Describe reasonable and prudent alternatives to this action, if any (including no action).

- 1) **No Action:** Rainbow trout would continue to be stocked.
- 2) **Do not stock any fish:** Anglers would realize reduced fishing opportunities and loss of an easily accessible, quality mountain lake angling experience.
- 3) **Preferred alternative is to stock westslope cutthroat trout.** Establishment of a WCT fishery would provide a unique opportunity to fish for this special native trout.

Describe and evaluate mitigation, stipulations, or other control measures enforceable by the agency, if any.

None are necessary beyond this EA.

List any other agencies or individuals that may be affected by the proposed introduction:

Lewis and Clark National Forest
Montana anglers

List all agencies and individuals who have been notified of this proposed introduction:

Lewis and Clark National Forest
Steve Leathe, Fisheries Manager, Montana Fish, Wildlife and Parks, Great Falls

Is an EIS required? No, the action is expected to be minor and beneficial.

References

Shepard, B. B., B. Sanborn, L. Ulmer and D.C. Lee. 1997. Status and risk of extinction for westslope cutthroat trout in the upper Missouri River Basin. North American Journal of Fisheries Management 17:1158-1172.

EA prepared by: Dave Yerk, Fisheries Biologist Date: January 12, 2006

Comments will be accepted until: March 1, 2006

Comments should be sent to: Dave Yerk
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