

Montana Fish, Wildlife and Parks

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

Proposed Action:

To stock westslope cutthroat trout (WCT) *Oncorhynchus clarki lewisi* from hatchery brood stock into Renshaw 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 populations occupy less than six miles of habitat (Shepard et al. 1997). The conversion from stocking Yellowstone cutthroat trout (YCT) *Oncorhynchus clarki bouvieri* to WCT is being proposed to provide a fishery for this native fish in Renshaw Lake. Although not native to this drainage, WCT are native to this locale; YCT are not. Stocked WCT have produced excellent fisheries in other lakes in Montana.

Description of water body:

Name: Renshaw Lake location: T20N R10W S01
Water Code: 20-8000
County: Lewis & Clark

Drainage where pond is located:

Renshaw Lake is located in the headwaters of Renshaw Creek in the South Fork Sun River drainage approximately 20 miles west of Augusta, MT. Renshaw Creek is a tributary to Fairview Creek, which enters Wood Creek approximately two miles upstream of its mouth at Straight Creek. Straight Creek flows about one mile before entering 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 Renshaw Lake. Historically, several different species were stocked into Renshaw Lake. From 1939 to 1960, Arctic grayling *Thymallus arcticus*, undesignated cutthroat trout *Oncorhynchus clarki* sp., brook trout *Salvelinus fontinalis*, rainbow trout *Oncorhynchus mykiss*, and golden trout *Oncorhynchus aguabonita* were all stocked at one point. Beginning in 1967 until 2001, YCT were air planted into Renshaw Lake on alternate years. Approximately 1,000 age-0 YCT were planted each stocking session.

Species of Special Concern in the drainage

None in local waters. The Sun River drainage above the falls (at 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. During an exceptional precipitation event, WCT may emigrate from Renshaw Lake and establish in associated tributaries. However, juvenile cutthroat trout would not compete well with the abundant brook populations in downstream tributaries. It is possible stocked WCT may eventually immigrate downstream into Straight Creek and the South Fork Sun River. However, WCT would have no detrimental impacts on the genetics of the cutthroat trout x RB hybrids currently 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 existing fish populations are expected, as stocking densities will remain similar to historic management.

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

None Minor Major

It is expected that the effects on the aquatic invertebrate community and other aquatic life in the lake from WCT will be similar to the effects from the previous plants of YCT trout.

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

None Minor Major

There are no inflowing or outflowing streams associated with Renshaw Lake that would provide adequate spawning habitat for WCT. In the past, YCT did not successfully spawn in Renshaw Lake.

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

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 Renshaw Lake to remove introduced WCT, but this would likely be cost prohibitive.

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:** YCT trout would continue to be stocked.
- 2) **Do not stock any fish:** Anglers would realize reduced opportunities and loss of a high quality mountain lake angling experience.

- 3) **Preferred alternative is to stock westslope cutthroat trout.** Establishment of a WCT fishery would provide an 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
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