



PUBLIC SCOPING for an environmental assessment on proposed **Westslope Cutthroat Trout and Bull Trout Preservation at Gunsight Lake**

Background—Native westslope cutthroat trout (a state listed species of concern) in the St. Mary River drainage on the east side of Glacier National Park are at risk from hybridization with non-native fish. Ongoing hybridization is occurring in almost every westslope cutthroat population in the drainage, but some still contain pure individuals (less than 1% non-native genes). Such populations are of high conservation value.

Gunsight Lake is at the headwaters of the St. Mary River (Figure 1), which is part of the South Saskatchewan River drainage. The lake was historically fishless but stocked in 1916 with 35,000 non-native cutthroat trout and again from 1920-1936 with 224,000 rainbow trout. The rainbow trout established a self-sustaining population. These fish are able to migrate downstream and hybridize with native westslope cutthroat trout.

The St. Mary River drainage also supports bull trout, listed as threatened under the Endangered Species Act (ESA), and is the only drainage in the United States where bull trout are found east of the Continental Divide. There are multiple threats to bull trout populations throughout the park, including non-native fish.

Climate change presents additional threats that could compound the stressors faced by bull trout and westslope cutthroat trout in the St. Mary drainage. Changes in stream flow and warmer water temperatures stress native trout and favor non-native species.

Proposal—Glacier National Park is proposing to remove non-native rainbow trout from Gunsight Lake and establish the lake as secure habitat for native westslope cutthroat trout and bull trout. This would remove an ongoing risk to native fish downstream and provide secure habitat to native fish that are at risk from hybridization and climate change.

Once removed, non-native fish would not be able to re-invade Gunsight Lake since several waterfalls downstream are barriers to upstream fish migration. Establishing a new population of westslope cutthroat trout that is secure against hybridization with non-native fish would expand the overall distribution of pure individuals and protect the genetic characteristics of the species in the St. Mary and South Saskatchewan River drainages. Given its high elevation, Gunsight Lake also has a high likelihood of sustaining the cold-water habitat necessary for westslope cutthroat and bull trout to persist in a changing climate.

Under this proposal, non-native rainbow trout would be removed from Gunsight Lake using a fish toxicant, such as rotenone. While rotenone and other fish toxicants degrade naturally with sunlight and water movement, detoxification would be hastened with a neutralizing agent. The toxicant would be detoxified before it reaches downstream native fish populations. Native fish, including westslope cutthroat trout and bull trout, are not present in Gunsight Lake.

The fish toxicant would be applied to the lake from motorized watercraft, such as an inflatable boat with an outboard motor or other small motorboat, and to the stream from drip stations and backpack sprayers. Application would occur during low water in late summer or early fall to reduce the amount of water treated and the likelihood of non-target organisms, such as larval amphibians, being present. The treatment area would be temporarily closed to the public during application and detoxification.

Following the removal of the non-native rainbow trout, genetically pure westslope cutthroat trout and bull trout would be translocated (i.e. stocked) into Gunsight Lake. Translocated fish would come from donor populations within the St. Mary drainage or other drainages with similar evolutionary pressures. To maximize the survival of

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Figure 1: Map of project area.

eggs and juvenile fish, eggs from donor fish would likely be taken to a hatchery for rearing. Some donor fish may need to be moved to a hatchery for spawning while others could be directly translocated to Gunsight Lake.

Helicopter flights would likely be required to transport materials, equipment, and live fish for translocation. If approved, the project may begin in the late summer or fall of 2023.

In 2019, Glacier National Park in partnership with Montana Fish, Wildlife and Parks (MFWP), the US Fish and Wildlife Service (USFWS), and the Glacier National Park Conservancy undertook a similar project in the Camas Creek drainage (west of the Continental Divide), successfully removing non-native Yellowstone cutthroat trout from Camas and Evangeline Lakes and translocating native westslope cutthroat trout and bull trout to both lakes.



Figure 2: Gunsight Lake, westslope cutthroat trout. NPS photos.

Objectives

- Conserve native, locally adapted and genetically pure westslope cutthroat trout in the St. Mary River drainage.
- Expand the long-term distribution of native westslope cutthroat trout and native bull trout in the St. Mary River drainage and range wide.
- Complement ongoing native fish conservation efforts of MFWP, USFWS, and the Blackfeet Nation.
- Protect and enhance recreational opportunities for anglers to fish for native trout in the St. Mary River drainage.

Issues and Resources to Consider

- The long-term persistence and conservation of native fish locally and regionally, including bull trout and genetically pure westslope cutthroat trout
- Impacts to other aquatic species
- Impacts to wildlife, including grizzly bears and Canada lynx (federally listed as threatened), and water birds
- Impacts to water quality
- Impacts to natural soundscapes
- Impacts to wilderness character, including the undeveloped and untrammelled qualities, the natural condition, and opportunities for visitor solitude

Environmental Assessment (EA) Process

- Public Scoping
- Preparation of EA
- Public Review of EA
- Analysis of Public Comments
- Decision Document

Alternatives Identified to Date

- **Alternative A (Proposed Action)**—1) remove non-native rainbow trout from Gunsight Lake using a fish toxicant, and 2) translocate genetically pure (less than 1% non-native genes) westslope cutthroat and bull trout to the lake to establish a native fish assemblage that is secure against the threats of hybridization with non-native fish and climate-related habitat degradation.
- **Alternative B (No Action)**—do not remove non-native rainbow trout from Gunsight Lake or translocate westslope cutthroat or bull trout into the lake.

The proposed action is only an initial proposal; no decision to implement any action can be made until the NEPA process, including consideration of reasonable alternatives to the proposed action, is complete.

Public Comments During Scoping

Your comments will help identify issues, concerns, and other alternatives to evaluate in the EA. There will be another opportunity to comment when the EA is completed.

Please post comments online at:

<https://parkplanning.nps.gov/GunsightLake>

Or send comments to:

Superintendent, Glacier National Park
Attn: Gunsight Lake EA
PO Box 128
West Glacier, MT 59936

Please provide comments by:

October 26, 2022