

**Montana Fish, Wildlife & Parks
Region 1
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**FINAL ENVIRONMENTAL ASSESSMENT AND DECISION NOTICE
FOR THE WESTSLOPE CUTTHROAT TROUT ESTABLISHMENT IN
RAINBOW LAKE PROJECT**

October 14, 2022

Project Proposal and Justification:

Rainbow Lake is a 9.5-acre lake in the Wigwam River watershed, which drains to the Elk River and ultimately Lake Koocanusa. The outlet tributary to Rainbow Lake is an unnamed creek that flows approximately 1.5 miles prior to crossing the international border. The proposed activities would be limited to Rainbow Lake and approximately 1.0 miles of outlet tributary directly downstream of the lake. Rainbow Lake lies within the Ten Lakes Scenic Area that was designated as a Wilderness Study Area by the Montana Wilderness Study Act of 1977. The lake was likely historically fishless because of a natural waterfall barrier located about a mile downstream of the lake. There are no hatchery records of stocking in Rainbow Lake, which makes the origin of fish introduction in this waterbody unclear. Nonetheless, Rainbow Lake currently contains naturally reproducing nonnative Yellowstone cutthroat trout that pose a hybridization threat to native westslope cutthroat trout in the Kootenai River watershed.

The objectives of the proposed action are to: 1) eliminate a source of Yellowstone cutthroat trout that contributes to the hybridization with westslope cutthroat trout in the Wigwam River drainage, and 2) re-establish an equivalent westslope cutthroat trout

recreational fishery in Rainbow Lake by restocking the lake after removal of the Yellowstone cutthroat trout.

MFWP would use the piscicide rotenone to remove all fish from Rainbow Lake prior to restocking these waters with westslope cutthroat trout from several local tributaries to the Kootenai River upstream of Libby Dam.

Location of Project:

This project would occur at Rainbow Lake and the unnamed outlet tributary from the lake which are located approximately 11 miles northeast of Eureka, Montana, and are accessed from USFS road 7091 and trail 89 (Township T37N, Range R25W, in section 8, Lincoln County, Montana). The Forest Service manages the land where the proposed activities would occur.

Environmental and Social Impacts of Project:

This project is designed to eradicate fish in Rainbow Lake and approximately one mile of the outlet tributary downstream of the lake. Yellowstone cutthroat trout is the only fish species found in these waters, and this project's objective is the removal of these fish from the lake and creek.

Rotenone readily degrades through exposure to air, sunlight and naturally occurring organic compounds present in aquatic environments. To help ensure that aquatic life and water quality in waters downstream of this project will not be affected, rotenone will be detoxified with potassium permanganate in the lake and outlet tributary.

FWP expects the impacts to nontarget invertebrates and amphibians within the project area to be minimal and short-lived based on findings of studies published in the scientific literature. FWP expects this project to have little or no adverse effect on mammals or birds occupying the area, based on research demonstrating rotenone is not toxic to mammals and birds at the concentrations that will be used to achieve nonnative trout eradication. This project is also not likely to have secondary effects, such as displacement, on any local populations of birds or mammals. FWP personnel activity during project completion will be somewhat higher than existing recreational use during this period but should have no effect on sensitive animal displacement. The fish community in Rainbow Lake is unlikely to be a significant food source for any of these sensitive animal species. Therefore, removing these fish from these waters will have little or no impact on any of these species.

Studies indicate rotenone actively binds to organic compounds in soils and does not readily transport through sediments, making the risk of groundwater contact minimal. There are no domestic wells or existing water rights located within the project area and the lake will only be treated when the outlet tributary leaving the lake is dry and there is no surface water connection with downstream tributaries. Furthermore, FWP adheres strictly to the manufacturer's label recommendations that advise using sentinel fish (hatchery westslope cutthroat trout in this case) to ensure the product has adequately

degraded in the lake and to test for the presence of rotenone in the outlet tributary. After a complete fish kill is achieved in the lake, FWP will begin deactivating the rotenone in the lake by applying potassium permanganate to minimize the likelihood that rotenone laden water enters the outlet tributary downstream of the lake. In the unlikely case that rotenone does enter the downstream wetted portion of the outlet tributary, FWP would also apply potassium permanganate to the outlet tributary.

The risk of the public's exposure to these chemicals will be minor. Signs notifying the public of the project will be posted in the area at the access route to Rainbow Lake. FWP will further limit human exposure to chemicals used for this project through a Forest Service closure order that restricts area access to administrative personnel until completion of the project.

Recreation is the primary land use in the project area, and the proposed project would result in short-term disruption of recreation near Rainbow Lake. Public access to Rainbow Lake would remain closed during the application of the rotenone and remain closed until fish bioassays indicate neutralization of the piscicide is complete, approximately 2-4 days. Signs would be posted at trailheads and access points advising visitors of the closures. Recreational fishing would be impacted until transplanted westslope cutthroat trout reestablish the fishery in the lake. Full recovery of the fishery, including angler harvest opportunity, would likely take 2-4 years. After the fishery is reestablished, visitors to Rainbow Lake would have the valued opportunity to catch native westslope cutthroat trout in a remote setting. Moreover, this project would protect westslope cutthroat trout in the Wigwam River drainage by removing this source of hybridization. Short-term effects on angling opportunity are expected to be outweighed by long-term conservation and recreation gains achieved through the establishment of this native trout fishery.

The project area is within the Ten Lakes Scenic Area that was designated as a Wilderness Study Area by the Montana Wilderness Study Act of 1977. The proposed actions would maintain the wilderness character of the area for the potential inclusion in the National Wilderness Preservation System that existed in 1977 when the act was passed. The project would require the presence of field crews and their camps and would necessitate the use of a gas-powered boat motor and helicopter to transport supplies and equipment to the lake. These disturbances within the wilderness study area would be limited to the minimal levels to accomplish the work and the disturbance associated with these activities would be short-term. Press releases and signs posted near stream access points would alert the public to the project. Actions would be limited to the immediate Rainbow Lake area, leaving the majority of the Ten Lakes Scenic Area undisturbed.

Public Involvement:


In compliance with the Montana Environmental Policy Act, an environmental assessment was prepared and circulated for public comment from August 11 through September 9, 2022. FWP circulated a news release to regional media outlets and the document was posted to the FWP website announcing the opportunity for public review of the environmental assessment and comment to inform decision making for this proposal. FWP received 13 public comments and our responses are included in the Public Comment section of this document below.

Decision Notice:

Based on the strong public support expressed during the public comment period, and the desire to conserve and restore westslope cutthroat trout populations and enhance fishing opportunity in the upper Kootenai, FWP has prepared the final environmental assessment for this project. No changes were made to the Draft Environmental Assessment; therefore, the Draft will become the final document. This project aims to advance FWP's Statewide Fisheries Management Plan goals by benefitting native species and angling opportunity; therefore, I recommend that FWP implement plans to remove the nonnative fishes from Rainbow Lake and establish westslope cutthroat trout.



Lee Anderson, Supervisor
MT Fish, Wildlife & Parks, Region 1



Date

Public Comments:

During the public comment period for the draft EA, FWP received comments from 13 individuals. The comments were varied but could be divided into three general groups. FWP received one comment/inquiry requesting additional information about which Rainbow Lake the project referred to. FWP received eight comments in support of the project attributed to restoring fishing and conservation opportunities for native fish including westslope cutthroat trout. FWP received four comments in opposition to the proposed project. In order to reduce redundancy and increase efficiency, FWP has grouped the opposition and clarification comments and our responses into the following groups.

Comment:

Concern of using funding from either fishing licenses or Dingell-Johnson funding when other projects such as local boat launches, vault latrines, or fishing access should be prioritized over this project.

FWP Response:

This project would be implemented with funding from the Libby Dam Mitigation Project that receives funding from Bonneville Power Administration. No license dollars or Dingell-Johnson funding would be used for the Rainbow Lake project. The Libby Dam Mitigation Project implements conservation and restoration projects to offset the impacts associated with the construction and operation of Libby Dam. FWP has determined that mitigation on the mainstem Kootenai River cannot fully mitigate the impacts of Libby Dam and therefore must also implement projects within the watershed to achieve complete mitigation. Funding from the Bonneville Power Administration prioritizes native fish restoration and conservation efforts.

Comment:

Concern that the number and size of the fish in Rainbow Lake will be diminished after the proposed project.

FWP Response:

FWP personnel within the last several years has completed inventory assessments of the size and relative abundance of fish in all the lakes within the Ten Lakes Scenic Area and we agree that Rainbow Lake generally has the highest catch rate of large fish. We attribute these conditions to the fact that Rainbow Lake is the only lake in the area this is not currently stocked and to the difficult access to the lake that limits the number of people fish the lake. FWP is committed to reestablishing an equivalent fishery after removal of the Yellowstone cutthroat trout population but acknowledges that it may take 2-4

years to establish a fishery of similar quality after the initial removal of Yellowstone cutthroat trout. Stocking westslope cutthroat trout will be limited to the minimum numbers needed to reestablish a robust population and stocking will cease after natural production starts. FWP will monitor the length and catch rates in the lake after the project to ensure a similar quality fishery is established and adaptively manage the population to ensure this occurs.

Comment:

The difference between Yellowstone and westslope cutthroat trout is a trivial matter and hybridization between the two species leads to a hardier strain.

FWP Response:

Slightly or non-hybridized westslope cutthroat trout currently occupy approximately 15% of their historically occupied habitat in the Montana portion of the Kootenai River drainage. Westslope cutthroat trout in the upper Kootenai River drainage face several threats to the species existence and perhaps the most substantial threat being hybridization with closely related introduced non-native species including rainbow trout and Yellowstone cutthroat trout. Without management intervention, hybridization will remain a concern to downstream populations because the fish residing in Rainbow Lake will continue to migrate downstream and remain a persistent source of non-native genetic contribution to downstream populations of native westslope cutthroat trout. Once a fish population hybridizes with a non-native species, reversing the trend is nearly impossible without management intervention and the local populations can be become genetically extinct. Research has demonstrated that hybridization in westslope cutthroat trout populations reduces fitness of the population (Muhlfeld et al. 2009).

Muhlfeld, C., S. Kalinowski, T. McMahon, M. Taper, S. Painter, R. Leary, and F. Allendorf. 2009. Hybridization rapidly reduces fitness of a native trout in the wild. *Biology Letters* 5:328-331. Available at: <https://www.montana.edu/kalinowski/teaching/documents-and-images/22A%20-%20CONGEN%20-%20Muhlfeld%20et%20al%20-%20Cutthroat%20hybridization%20-%20Biology%20Letters.pdf>

Comment:

The fishing public doesn't care if the fish they catch are genetically pure or not.

FWP Response:

FWP has a dual resource trust responsibility, to provide recreational opportunity for fisherman and to conserve fisheries for future generations. Allowing the Yellowstone cutthroat trout in Rainbow Lake to persist will continue to jeopardize

the genetic integrity of westslope cutthroat trout living downstream of Rainbow Lake. Completing this project as proposed would accomplish both mandates and provide the opportunity of future generations to enjoy an invaluable component of this special area's natural heritage.

Comment:

Significant problems and challenges may arise with holding wild fish in a hatchery and then rearing eggs from those fish stock in Rainbow Lake.

FWP Response:

Rainbow Lake will be restocked with westslope cutthroat trout reared at the Sekokini Springs State Fish Hatchery. This hatchery is a conservation hatchery that specializes in collecting cutthroat trout from wild populations and holding them at the facility until the fish sexually mature and are spawned to produce fry to restock similar type conservation projects in Northwest Montana. The staff at Sekokini Springs Hatchery are experienced and have a proven track record of the aquaculture techniques required to complete this work with very low mortality of wild donor fish.