



## DECISION NOTICE

### Lake Trout Suppression at Swan Lake to Improve Bull Trout and Kokanee Salmon Populations

FWP-DN-FSH-R1-24-011

08/16/2024

#### **ACTION**

Decision Notice (DN). Montana Fish, Wildlife & Parks (FWP) shall prepare a DN for the proposed action. The DN must identify the agency decision, the reasons for the decision, and any special conditions surrounding the decision or its implementation.

With this action, FWP hereby adopts the Draft Environmental Assessment or Draft EA with modifications as final and approves Alternative 2, the proposed action.

#### **AUTHORITY: MONTANA ENVIRONMENTAL POLICY ACT**

According to the applicable requirements of the Montana Environmental Policy Act or MEPA and its implementing rules and regulations, before a proposed action may be approved, environmental review must be conducted to identify, consider, and disclose any potential impacts of the proposed action on the affected human environment. The level of environmental review will vary with the complexity and seriousness of environmental issues associated with a proposed action. The level of public interest will also vary. The agency is responsible for adjusting public review to match these factors. *Title 75, Chapter 1, Parts 1 through 3, Montana Code Annotated (MCA)*.

Based on these factors, FWP determined a Standard EA (Draft EA) constitutes the appropriate level of review for the proposed action. Therefore, to assess and disclose potential impacts of the proposed action, FWP prepared a Draft EA for public review and comment. See *Public Participation Process* below.

Further, FWP must consider any substantive comments received in response to an EA and proceed in accordance with one of the following steps: determine the EA did not adequately reflect the issues raised by the proposed action and issue an Environmental Impact Statement or EIS; determine the EA did not adequately reflect the issues raised by the proposed action and issue a supplemental EA; or determine the Draft EA adequately addressed the issues raised by the proposed action and make a final decision, with appropriate modification resulting from the analysis provided in the Draft EA and the analysis of any substantive public comments received. See *Public Comment and FWP Response* below.

## **PUBLIC PARTICIPATION PROCESS**

The Draft EA was made available for public review and comment from 5/30/2024 to 6/28/2024. The Draft EA was posted on FWP's Public Notice webpage: <https://fwp.mt.gov/news/public-notice>. FWP hosted two public meetings during the comment period, one at Kalispell and one at Swan Lake. The Draft EA was also made available for public review on the Environmental Quality Council or EQC website: <https://leg.mt.gov/mepa/search/>, by individual request, and through notice to identified interested parties. FWP received numerous written responses during the public comment period. There were comments in support of the action alternative, comments opposed to the action alternative and comments in support of the no action alternative.

## **DESCRIPTION OF PROPOSED ACTION**

- The proposed project represents a progression of previous lake trout suppression efforts in Swan Lake. FWP proposes to conduct a lake trout removal effort in Swan Lake, Montana, to reduce the lake trout population. This action is consistent with the management direction in the [Statewide Fish Management Plan Section 2.03](#) (2023), USFWS/FWP Section 6 Cooperative Agreement, 2024 (Appendix B) and is an action supported in the [USFWS Recovery Unit Implementation Plan](#) for bull trout in the Columbia Headwaters Recovery Unit. The proposed action would involve contracting with professional fishery consultants to conduct gillnetting beginning 2025. These activities would be conducted annually until lake trout numbers are sufficiently low to improve bull trout and kokanee salmon numbers. Funding has been secured for the first seven years of the project and will be pursued for future efforts. Obtaining additional funding will likely depend on the relative success. FWP will assess success of the project through independent index netting for lake trout, as well as bull trout and kokanee redd counts. All lake trout netted during the project will be killed; those that are salvageable and of suitable size for consumption will be field dressed and donated to food banks or other organizations; those that are not suitable for human consumption will either be donated to wildlife rehabilitation facilities or placed in landfills (for larger carcasses associated with higher mercury levels). No carcasses will be intentionally sunk during suppression activities. A very small number of partially caught (generally by the teeth) lake trout will fall off the net when it is retrieved.

## **PURPOSE AND NEED**

Swan Lake represents one of just a few remaining bull trout core areas in Montana. FWP proposes to conduct a lake trout removal project in Swan Lake to suppress the population for the purpose of improving conditions for bull trout and kokanee salmon.

More specifically, the proposed project would:

- Mitigate the loss of traits that have evolved locally in bull trout. These traits have helped native bull trout persist in the affected environment for thousands of years.
- Improve overall ecosystem health by retaining the ecological role served by bull trout.
- Re-establish bull trout and kokanee salmon as valued sportfish in Swan Lake.
- Reduce the likelihood of the need for additional federal ESA actions to protect bull trout and further support state and federal efforts to de-list Montana's bull trout populations.
- This action is consistent with the management direction in the [Statewide Fish Management Plan](#) and is an action supported in the [USFWS Recovery Unit Implementation Plan](#) for bull trout in the Columbia Headwaters Recovery Unit.

## **ALTERNATIVES ANALYZED**

### **Alternative 1: No Action**

In addition to the proposed action, and as required by MEPA, FWP analyzes the "No-Action" alternative in the EA. Under the No-Action alternative, the proposed action would not occur. Therefore, no additional impacts to the human environment would occur. The No Action alternative forms the baseline from which the potential impacts of the proposed action may be measured.

Under the No Action Alternative, FWP would not conduct lake trout suppression for bull trout conservation in the Swan Lake drainage. In Swan Lake, lake trout populations are expected to expand to where they reach equilibrium with the environment. Lake trout would likely replace bull trout as the Swan system's apex aquatic predator, as observed in other lake systems within the Flathead drainage. Eventually, the Swan Lake kokanee salmon population would likely become functionally extinct. Under this alternative, bull trout would not be conserved in Swan Lake.

Further, the no action alternative would not achieve the purpose and need of the proposed action and as such would not achieve a primary goal of FWP's Fisheries Division, to conserve core populations of native bull trout. This goal is backed by FWP policy, state law, and the [2023 Statewide Fisheries Management Plan](#) (SFMP Part 2.03). This is particularly important as it relates to wild and native fish populations and populations listed under the ESA, such as bull trout. Additionally, the no action alternative would not represent a commitment to bull trout ESA recovery, as identified in the USFWS Recovery Unit Implementation Guide for bull trout in the Columbia Headwaters.

### **Alternative 2: Proposed Action**

Under the Proposed Action, FWP would conduct a lake trout removal effort in Swan Lake, Montana, to suppress the population for the purpose of conserving native bull trout and kokanee salmon. The proposed action would involve contracting with professional fishery consultants to conduct gillnetting beginning 2025. These activities would be conducted annually until lake trout numbers are sufficiently low to improve bull trout and kokanee salmon numbers.

- Funding has been secured for the first seven years of the proposed project and will be pursued for future efforts, as deemed appropriate. Obtaining additional funding will likely depend on the relative success. FWP will assess success of the project through independent index netting for lake trout, and bull trout and kokanee salmon redd counts. All lake trout netted during the project will be killed; those that are salvageable and of suitable size for consumption will be field dressed and donated to food banks or other organizations; those that are not suitable for human consumption will either be donated to wildlife rehabilitation facilities or placed in landfills (for larger carcasses associated with higher mercury levels). No carcasses will be intentionally sunk during suppression activities. A very small number of partially caught (generally by the teeth) lake trout will fall off the net when it is retrieved.

## **PUBLIC COMMENT AND FWP RESPONSE**

FWP received substantive public comment on the Draft EA. A substantive public comment was defined as the identification of a specific issue or impact. In some cases, multiple individuals provided the same or similar comment; these comments were summarized, categorized, listed once, and a single FWP response is

provided below. See Public Participation Process section on page 2, above, for a basic summary of comments received. The following constitutes a synopsis of public input received and FWP's response to those comments.

Those themes and responses are presented below.

#### ***THEMES FROM COMMENTS/QUESTIONS TO ANSWER FOR DN***

##### ***Consider lake trout suppression in Lindbergh and Holland Lakes as part of this project***

- FWP will expand SPIN (lake trout monitoring) netting to include Lindbergh and Holland Lakes beginning 2024. Based on information gathered from that netting, we will determine need and timing of additional actions in these lakes.

##### ***Upgrade this proposal from a "project" to a "program".***

- Thank you for your comment. Lake trout suppression in Swan Lake will be a long-term program, meaning suppression timing, intensity and duration will be based on information gathered from the projects of 2009-2016, SPIN netting since 2017 and lessons learned from other projects with similar conditions.

##### ***Falls short on what long term management of the lake will look like (SEVEN YEARS IS TOO SHORT) (9)***

- Success of the program will be measured by achieving specific benchmarks. Examples from other lake trout suppression programs (Yellowstone Lake and Lake Pend Oreille) have shown benefits to native fish when lake trout harvest has exceeded 1.5 kg/ha on juvenile lake trout, and 2.0 kg/ha on adult lake trout. These targets will be used to evaluate whether contracted netting is removing enough lake trout biomass. Annual SPIN netting results will also be used to evaluate efficacy of lake trout removal. This survey was initiated in 2017 after the suppression project from 2009-2016 had ended. The lake trout density in 2017 will be used as a target to reduce current density to that level or lower. The final measure of success will be a stabilization or increase in the trend of bull trout redds in the Swan system. Bull trout redds have declined since the previous suppression project was completed in 2016, and future trends will be measured against the record low numbers observed in 2023. The lake trout suppression program is to be funded using State Wildlife Grant (SWG) dollars. This funding is dedicated toward native species conservation, and efforts to recover bull trout make this a good fit. Currently FWP will be using SWG dollars to pay for annual gillnetting contracts and is secure for seven years.

##### ***Potential adverse impact of sinking gill nets to Common Loons and Grebes***

- No loons were caught in the nets during the first lake trout suppression project between 2009-2016. Additionally, loons have not been caught in nets in other Montana lakes where loons are present and lake trout suppression efforts are occurring. Netting generally will be accomplished during a time when the thermocline has been established (about 60 feet in depth). Lake trout tend to move below the thermocline during this time while many of the fish species that comprise the diet of loons and grebes are found above the thermocline further reducing the likelihood of impacts to loons and grebes

## ***Discussion on future stocking efforts of kokanee and bull trout***

### **Bull Trout:**

- FWP does not stock bull trout to augment wild populations (Restoration Plan for Bull Trout in the Clark Fork River Basin and Kootenai River Basin in Montana, FWP, 2000).
- To minimize genetic consequences of hatchery (loss of genetic variation and reduced fitness from inbreeding), we would need to capture and spawn hundreds of pairs of bull trout.
- The act of trapping/holding/spawning would put additional strain, including mortality on the spawning adults (they are multiple year spawners)
- We do not have the hatchery capacity to hold and culture sufficient numbers of bull trout in Montana.
- Hatchery produced salmonid fishes (trout, char, salmon, etc.) typically have no more than half the reproductive success of wild-born fish; In turn, when they spawn with wild born fish, they decrease the productivity (fitness) of native populations.
- While hatcheries have a strong track record of helping establish populations, or providing recreational fisheries, their ability to help conserve threatened wild populations is very limited.
- By reducing competition with and predation by lake trout, we believe the current adult population is sufficient to maintain genetic diversity and increase population size naturally.

### **Kokanee:**

- FWP will initiate kokanee stocking when the lake trout population density is sufficiently low enough to insure a reasonable amount of survival of stocked kokanee. We would consider the suppression of lake trout a success for kokanee if the lake trout population was reduced to the level measured in the first year of SPIN netting (2017) when the kokanee population was still strong enough to support a harvest fishery. Lake trout catch per net in the 2017 SPIN netting averaged 3.5 lake trout per net.

***How will the success or failure of the project be measured, How is “improve bull and kokanee numbers” defined: 1%, 10%, 50% increase? How “sufficiently low” do lake trout numbers need to be.***

- Success of the program will be measured by achieving specific benchmarks. Examples from other lake trout suppression programs (Yellowstone Lake and Lake Pend Oreille) have shown benefits to native fish when lake trout harvest has exceeded 1.5 kg/ha on juvenile lake trout, and 2.0 kg/ha on adult lake trout. These targets will be used to evaluate whether contracted netting is removing enough lake trout biomass. Annual SPIN netting results will also be used to evaluate efficacy of lake trout removal. This survey was initiated in 2017 after the suppression project from 2009-2016 had ended.
- The lake trout density in 2017 will be used as a target to reduce current density to that level or lower. The final measure of success will be a stabilization or increase in the trend of bull trout redds in the Swan system. Bull trout redds have declined since the previous suppression project was completed in 2016, and future trends will be measured against the record low numbers observed in 2023.

***Why not remove the lake trout from the lake without the pollution risk?***

- Based on considerable comment about concerns with water quality, perceived wanton waste and potential increases to mysis densities associated with sinking carcasses into the lake, FWP will remove all carcasses and offer to food banks, raptor rehab centers or place in landfills (for larger carcasses associated with higher mercury levels). No carcasses will be intentionally sunk during suppression activities.

***Please explain how you will limit bull trout by-catch. Will you let the public know exact incidental killed bull trout per net.***

- As stated in the EA, net mesh size, netting timing and netting placement will be an iterative process that will be accomplished to maximize lake trout catch and minimize bull trout bycatch. Bycatch of all non-target fish species will be provided in progress reports.

**Please consider donating the Lake Trout you catch to a Food Bank.**

- Based on considerable comment about concerns with water quality, perceived wanton waste and potential increases to mysis densities associated with sinking carcasses into the lake, FWP will remove all carcasses and offer to food banks, raptor rehab centers or placed in landfills (for larger carcasses associated with higher mercury levels). No carcasses will be intentionally sunk during suppression activities. A very small number of partially caught (generally by the teeth) lake trout will fall off the net when it is retrieved.

***Why was the project halted after 2016?***

- The 2009-2016 lake trout suppression project was discontinued after the 2016 season for several reasons. These reasons include a lapse in dedicated funding for the project, failure to meet predetermined evaluation criteria, and a lack of MEPA coverage as the 2012 EA specified a 5-year timeline.

***We urge any equipment (boats, nets) brought in to the project from other states undergo inspection to be sure they are not inadvertently spreading Aquatic Invasive Species.***

- Thank you for the comment. FWP will inspect the suppression netting boat prior to launch and the boat will be moored in Swan Lake for the duration of each netting episode.

***I support increasing angler opportunities to catch lake trout by increasing the lake trout limit per day to 100 for Swan Lake***

- It has been FWP's experience that recreational anglers typically will not harvest more than 20 lake trout daily so increasing the harvest number will have limited effect. As regulation setting occurs every two years, additional information may lead to increased harvest opportunity in the future.

***I think by killing the fish it would decrease the number of bull trout***

- As stated in the EA, net mesh size, netting timing and netting placement will be an iterative process that will be accomplished to maximize lake trout catch and minimize bull trout bycatch. All bull trout that are killed during the netting will be counted and physical information about each individual fish will be gathered and reported.

***Suggestions would be maybe have fishing derbies with prizes on the fish***

- Establishing a fishing derby similar to Mac Days on Flathead Lake will continue to be a possibility. Public parking to access the lake is limited (~25 publicly accessible spaces) and would likely not produce a significant harvest. Also, as pointed out in public meetings, there are crowding concerns by local and recreational anglers.

***Why not consider a bounty program***

The Unauthorized Placement of Fish rule in Administrative Rules of Montana provides some guidance about establishing bounties:

- 12.7.1501 GENERAL PURPOSE
- (1) As determined by the department, these rules pertain to the department's response to the detection of a species of fish in public waters where the department has not authorized the presence of that species. These rules are intended to cover all placement of unauthorized species into the public waters, including from outside or inside the state through introduction or transplantation. Unauthorized species refers to any live fish found in public waters without authorization by the department...

***12.7.1503 MANAGEMENT ACTIONS***

- (1) The department's action plan for responding to a confirmed unauthorized species may include, as determined by the department, the following management actions for eradication or suppression:
  - (e) authorize commercial harvest or economic harvest incentives for the unauthorized species if statutory authority is provided and is prescribed by a management plan;

Though FWP may consider it in the future, bounties for lake trout currently are not provided in statute nor are they prescribed in the current Statewide Fisheries Management Plan for Swan Lake.

***No mention of the voracious northern pike, northern pike minnow, and perch; singling out one species to demonize for eradication while ignoring other predators. As I recall Kokanee are also non-native and eat their share of fish fry***

- Northern pike were first identified as established in Swan Lake in 1979. Although they prey on bull trout and kokanee, northern pike densities were not high enough to have a detrimental effect on either bull trout or kokanee in the past. Additionally, FWP has established a liberal daily harvest and has proposed a no limit possession for northern pike in the Western Fishing District. Also, FWP opened all western district lakes (including Swan Lake) to spearing through the ice, leading to more potential harvest.
- Northern pikeminnow evolved with bull trout and have existed with kokanee without any identifiable negative impacts to either.
- Kokanee were first stocked into Swan Lake during the 1940's and established a naturally reproducing population soon after. They were periodically stocked into the lake, especially when kokanee were captured to augment kokanee egg take for statewide distribution. Kokanee are not thought to have detrimental effects on bull trout, as bull trout enter the lake as mostly 3-year-old fish that are much too large for kokanee utilize as prey. Additionally, any predation by kokanee is far outweighed by their importance as a prey species by bull trout.

***Are you going to use the Robertson Pittman (Pittman Robertson) money for this project.***

- Swan Lake, lake trout suppression program will be funded by the State Wildlife Grant (SWG) Program. The SWG Program provides Federal grant funds to State fish and wildlife agencies for developing and implementing programs that benefit fish and wildlife and their habitats.
- Source of Funds: Congress appropriates funds for the SWG Program on an annual basis. Funds are apportioned to States, Commonwealths, and U.S. Territories (States) based on a formula that considers each State's population and total geographical area.
- Grant funds are disbursed to States for approved grants at a maximum Federal share of 75% for planning grants and 65% for Plan implementation grants. Congress also allocates a portion of appropriated funds to the Competitive SWG Program.
- Identified and described in the Wildlife Action Plans, "species of greatest conservation need" section are species experiencing significant population declines (bull trout). Threats to these species are described in the Plans, including such factors as habitat loss and fragmentation, competition from non-native species, and stressors related to climate change. The Plans identify these species' habitats, as well as actions needed to restore and maintain viable populations of these species.
- The Plans also outline the methods to be used to monitor species populations and to measure the effectiveness of States' conservation actions, enabling grantees and their partners to utilize an adaptive management approach to conservation of these priority species.



***How much will the Netting cost the public Sportsman.***

- The lake trout suppression program is to be funded using State Wildlife Grant (SWG) dollars. This funding is dedicated toward native species conservation, and efforts to recover bull trout make this a good fit. Currently FWP will be using SWG dollars to pay for annual gillnetting contracts (~\$150,000/year) and 1 additional FTE for a full-time fisheries technician to collect data, coordinate volunteers, and oversee general operations of the suppression program. This new employee will be hired as a Fisheries Technician 5 (Biologist 1), at a salary of \$25.94/hour.

***Will the public be able to join the Netting crews on these Netting boats to observe what is coming out of the nets.***

- There is limited space on the netting boat to safely allow additional people beyond agency staff and contractor crews that are using equipment to pull nets and process fish on the boat. FWP will use volunteers as the opportunities allow. The primary use of volunteers will be with processing lake trout for food banks, raptor rehabilitation projects and removal to landfill.

***What happens if mysis start to increase?***

- FWP fully expects that mysis numbers will increase. The suppression program will use multiple net mesh sizes to target all lake trout down to approximately 6-8 inches (2 and 3-year-old lake trout). As lake trout numbers decrease, other species including bull trout and kokanee are known to have preyed on mysis in the past and FWP expects they will into the future. FWP currently monitors mysis numbers and will continue as part of the lake trout suppression program.

***Kokanee Salmon: The EA contains multiple pages of the existing environment. Recovery of kokanee salmon is listed as one of the goals, however, no data is given to show how kokanee status has changed.***

- Swan Lake once contained a large population of introduced kokanee salmon. Kokanee have traditionally been monitored through redd counts along the SE shoreline of Swan Lake. The timing of this survey can be difficult, as many times lake conditions do not allow staff to conduct the counts because of either waves or early ice-on. Kokanee redd counts have declined from 1,777 in 2005 down to just 491 in 2018. Lake conditions and changes in staffing have not allowed counts since 2018. Future kokanee monitoring efforts will add fall gillnetting along the traditional kokanee spawning area to track trends in kokanee spawner numbers. Anecdotal evidence from Swan Lake anglers in addition to stomachs of sampled lake trout, and FWP monitor netting suggest that kokanee are not as abundant as they were previously. Case studies from other lakes with kokanee, Mysis, and high numbers of lake trout have shown that kokanee will become functionally extirpated over time. The goal of this project is to re-establish the kokanee population once lake trout density is similar to what it was when netting was halted in 2016.

***There is an ongoing graduate research study on grinding up lake trout and scattering over spawning beds to produce fungus that might kill lake trout eggs. That is a novel approach, does the study include a look at potential water quality problems through decomposition?***

- Current methodology uses a soy-based material known as a “carcass analog” to smother and fungus eggs on known spawning areas. Through adult tracking, FWP has identified lake trout spawning areas. Any use of carcass analog in Swan Lake would be accomplished on a small experimental plot. The action would require a separate Environmental Assessment and would include extensive water quality analysis before, during and after the application.
- Based on considerable comment about concerns with water quality, perceived wanton waste and potential increases to mysis densities associated with sinking carcasses into the lake, FWP will remove all carcasses and offer to food banks, raptor rehabilitation centers or place in landfills (for larger carcasses associated with higher mercury levels). No carcasses will be intentionally sunk during suppression activities.

***No links to the studies or information on how to access the studies in case someone wanted more information***

- All white papers associated with Swan Lake will be linked in the final draft , all other studies are referenced in the document and available at the FWP Region One office.

***lake trout can never be eliminated from Swan Lake***

- While lake trout likely can never be eliminated given today’s technologies, initial heavy suppression netting based on SPIN netting feedback followed by lower intensity maintenance netting will allow for bull trout and kokanee populations to improve to pre-2017 levels.

## **DECISION**

Based on the environmental review provided in the Draft EA, and in accordance with all applicable laws, rules, regulations, and policies, FWP determined the proposed action (Alternative 2), will not have significant adverse impacts on the human environment associated with the proposed action and constitutes a reasonable and appropriate strategy to achieve identified objectives. Therefore, preparation of an EIS is unnecessary. FWP hereby adopts the Draft EA as final and approves Alternative 2, the proposed action.

Sincerely,



Lee Anderson  
Region 1 Supervisor  
Montana Fish, Wildlife & Parks