

**DRAFT**

**ENVIRONMENTAL ASSESSMENT**

**CHECKLIST**

**Crystal Lake Burbot Introduction**

**FWP-CEA-FSH-R1-23-013**

**11/16/2023**



## Table of Contents

<b>I.</b>	<b>Compliance with the Montana Environmental Policy Act.....</b>	<b>3</b>
<b>II.</b>	<b>Background and Description of Proposed Project .....</b>	<b>3</b>
<b>III.</b>	<b>Purpose and Need .....</b>	<b>6</b>
<b>IV.</b>	<b>Other Agency Regulatory Responsibilities .....</b>	<b>6</b>
<b>V.</b>	<b>List of Mitigations, Stipulations .....</b>	<b>6</b>
<b>VI.</b>	<b>Alternatives Considered .....</b>	<b>7</b>
<b>VII.</b>	<b>Summary of Potential Impacts of the Proposed Project on the Physical Environment and Human Population ...</b>	<b>7</b>
<b>VIII.</b>	<b>Private Property Impact Analysis (Takings).....</b>	<b>17</b>
<b>IX.</b>	<b>Public Participation .....</b>	<b>18</b>
<b>X.</b>	<b>Recommendation for Further Environmental Analysis .....</b>	<b>19</b>
<b>XI.</b>	<b>EA Preparation and Review .....</b>	<b>19</b>

## I. Compliance with the Montana Environmental Policy Act

*Before a proposed project may be approved, environmental review must be conducted to identify and consider potential impacts of the proposed project on the human and physical environment affected by the project. The Montana Environmental Policy Act (MEPA) and its implementing rules and regulations require different levels of environmental review, depending on the proposed project, significance of potential impacts, and the review timeline. § 75-1-201, Montana Code Annotated (“MCA”), and the Administrative Rules of Montana (“ARM”) 12.2.430, General Requirements of the Environmental Review Process.*

*FWP must prepare an EA when:*

- *It is considering a “state-proposed project,” which is defined in § 75-1-220(8)(a) as:*
  - (i) a project, program, or activity initiated and directly undertaken by a state agency;*
  - (ii) ... a project or activity supported through a contract, grant, subsidy, loan, or other form of funding assistance from a state agency, either singly or in combination with one or more other state agencies; or*
  - (iii) ... a project or activity authorized by a state agency acting in a land management capacity for a lease, easement, license, or other authorization to act.*
- *It is not clear without preparation of an EA whether the proposed project is a major one significantly affecting the quality of the human environment. ARM 12.2.430(3)(a));*
- *FWP has not otherwise implemented the interdisciplinary analysis and public review purposes listed in ARM 12.2.430(2) (a) and (d) through a similar planning and decision-making process (ARM 12.2.430(3)(b));*
- *Statutory requirements do not allow sufficient time for the FWP to prepare an EIS (ARM 12.2.430(3)(c));*
- *The project is not specifically excluded from MEPA review according to § 75-1-220(8)(b) or ARM 12.2.430(5); or*
- *As an alternative to preparing an EIS, prepare an EA whenever the project is one that might normally require an EIS, but effects which might otherwise be deemed significant appear to be mitigable below the level of significance through design, or enforceable controls or stipulations or both imposed by the agency or other government agencies. For an EA to suffice in this instance, the agency must determine that all the impacts of the proposed project have been accurately identified, that they will be mitigated below the level of significance, and that no significant impact is likely to occur. The agency may not consider compensation for purposes of determining that impacts have been mitigated below the level of significance (ARM 12.2.430(4)).*

*MEPA is procedural; its intent is to ensure that impacts to the environment associated with a proposed project are fully considered and the public is informed of potential impacts resulting from the project.*

## II. Background and Description of Proposed Project

### **Name of Project: Crystal Lake Burbot Introduction**

Montana Fish, Wildlife & Parks (FWP) is proposing to stock burbot into Crystal Lake. Crystal Lake is part of the Thompson Chain of Lakes south of Highway 2 near Happy’s Inn. The proposed action is being considered to provide angling opportunity, reduce density of illegally introduced yellow perch thus reducing competition with kokanee, and improve individual growth rates of existing game fish populations. Juvenile burbot would be stocked as fish become available from Twin Rivers Hatchery administered by the Kootenai Tribe of Idaho, or adult burbot would be transferred directly from the Kootenai River in Montana pending availability and disease testing. Burbot would be introduced at densities not to exceed 10 burbot/acre.

Burbot (ling) are the only freshwater member of the cod family found in North America and are easily identified by their eel-like appearance, rounded tail, and single chin barbel (McPhail and Paragamian 2000). With a circumpolar distribution above 40 degrees north, burbot occupy both rivers and lakes (Scott and Crossman 1973). Although found throughout much of the state, burbot are native only to the Kootenai, Missouri, and Saskatchewan drainages in Montana (Brown 1971). In the Kootenai drainage, burbot are present upstream of Libby Dam in Lake Koocanusa, as well as downstream in the Kootenai River to Idaho and Kootenay Lake in British Columbia. They are also present in Glenn, Sophie, and Tetrault (Carpenter) Lakes near Eureka, Montana, likely from unauthorized placement but possibly from intermittent connectivity of some lakes to Lake Koocanusa.

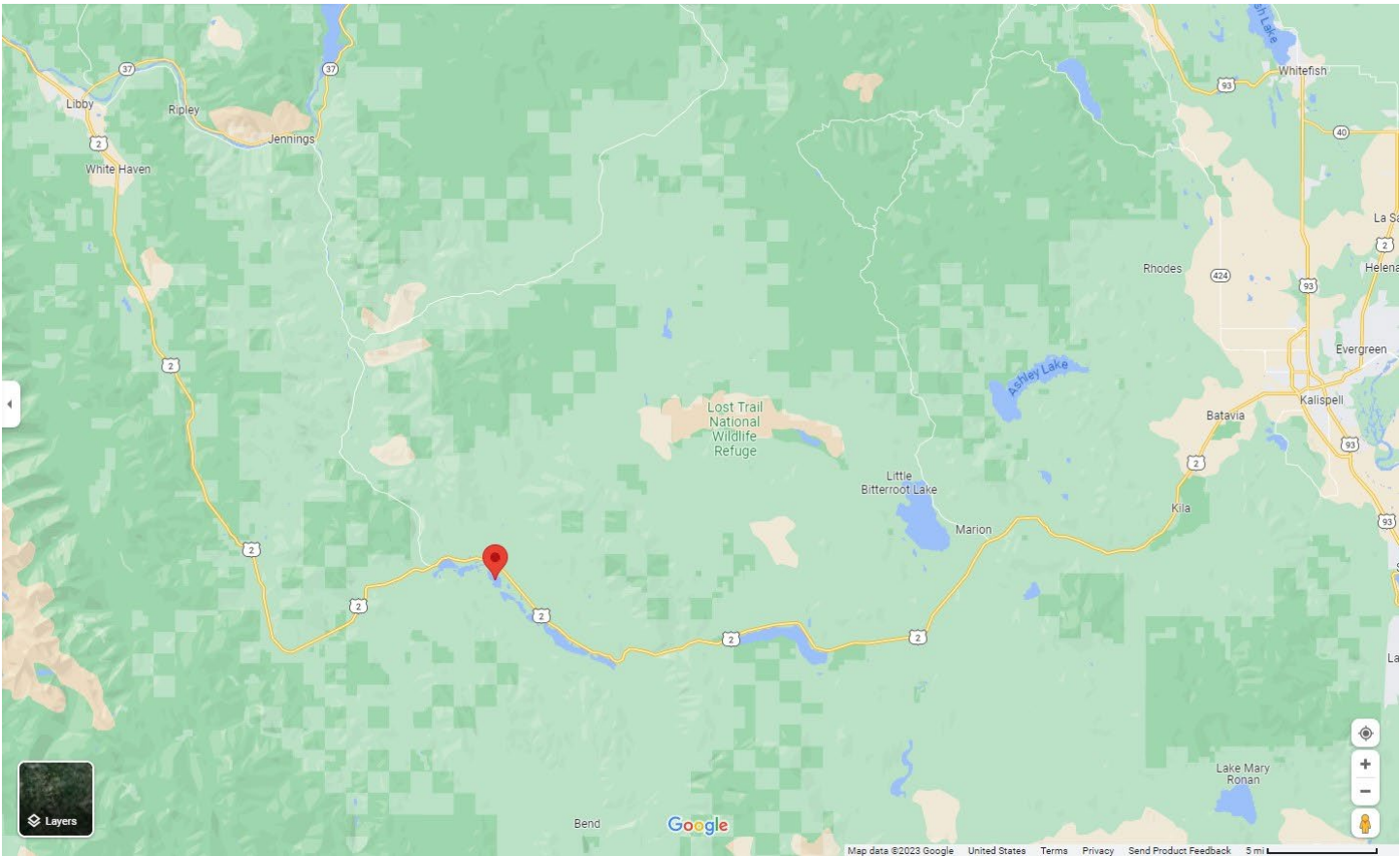
Most burbot reach sexual maturity by age three to four having attained total lengths of around 400 to 500 mm (Arndt and Hutchinson 2000). Spawning occurs during late winter or early spring. Larval burbot are pelagic feeders, consuming mainly zooplankton. Juvenile burbot become benthic oriented and prey on invertebrates and small fish before ultimately becoming predominantly ambush piscivores.

Located in the Kootenai River drainage, Crystal Lake is a 178-acre closed basin lake with a maximum depth of 153 feet. It is connected to Lavon Lake (17 acres, maximum depth 91 feet) by a passable 20 ft. wide by 4 ft. deep channel. Because of this connection, Crystal and Lavon Lakes are considered a single management unit by FWP. Crystal Lake was chemically treated in 1960 to remove non-native species and an overabundant largescale sucker population. Beginning in 1964, FWP introduced kokanee salmon and rainbow trout. These species are still currently stocked. Yellow perch, largemouth bass, and pumpkinseed have been illegally introduced and persist in Crystal and Lavon Lakes. While largemouth bass and pumpkinseed exist at low level, yellow perch have expanded resulting in an abundant population of mostly stunted individuals. Yellow perch compete with kokanee for the same food resources, resulting in decreased kokanee growth over the last two decades.

Introducing burbot will add a natural predator for illegally introduced yellow perch, as burbot are known to target yellow perch (Rudstam et al. 1995). The effect would be to reduce perch densities, decrease competition, lead to more food available for kokanee and remaining yellow perch, and increase individual growth and fishery quality of both species. If introduced burbot negatively impact the salmonid fisheries, rainbow trout and kokanee stocking rates could be adjusted to compensate for these impacts. Additionally, burbot would provide a unique trophy fishery for a regionally native species.

#### **Affected Area / Location of Proposed Project:**

- Legal Description
  - Latitude/Longitude: 48.075176, -115.141908
  - Section, Township, and Range: T27N R28W Sections 19, 24, 25, 30
  - Town/City, County, Montana: Happy's Inn, Lincoln County, Montana
- Location Map



**Figure 1: Location map of Crystal and Lavon Lakes (Thompson Chain of Lakes), Lincoln County, MT.**

**Table 1: Planning and strategy documents with relevance to fish stocking activities.**

Agency	Citation	Website
FWP	Statewide Fisheries Management Plan 2023-2026	<a href="https://fwp.mt.gov/conservation/fisheries-management/statewide-fisheries-management">https://fwp.mt.gov/conservation/fisheries-management/statewide-fisheries-management</a>
FWP	Wild Fish Transfer Policy (1996)	

### III. Purpose and Need

*The EA must include a description of the purpose and need or benefits of the proposed project. ARM 12.2.432(3)(b). Benefits of the proposed project refer to benefits to the resource, public, department, state, and/or other.*

Illegally introduced yellow perch have become abundant and stunted in Crystal and Lavon Lakes and compete with kokanee salmon for food resources. Introducing burbot would add a natural predator for yellow perch. The effect would be to reduce perch numbers, decrease competition, lead to more food available for kokanee, and increase quality of remaining yellow perch. Additionally, burbot would provide a unique trophy fishery for a regionally native species.

If FWP prepared a cost/benefit analysis before completion of the EA, the EA must contain the cost/benefit analysis or a reference to it. ARM 12.2.432(3)(b).

	Yes*	No
Was a cost/benefit analysis prepared for the proposed project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\* If yes, a copy of the cost/benefit analysis prepared for the proposed project is included in Attachment A to this Draft EA

### IV. Other Agency Regulatory Responsibilities

*FWP must list any federal, state, and/or local agencies that have overlapping or additional jurisdiction, or environmental review responsibility for the proposed project, as well as permits, licenses, and other required authorizations. ARM 12.2.432(3)(c).*

*A list of other required local, state, and federal approvals, such as permits, certificates, and/or licenses from affected agencies is included in **Table 1** below. **Table 1** provides a summary of requirements but does not necessarily represent a complete and comprehensive list of all permits, certificates, or approvals needed for the proposed project. Agency decision-making is governed by state and federal laws, including statutes, rules, and regulations, that form the legal basis for the conditions the proposed project must meet to obtain necessary permits, certificates, licenses, or other approvals. Further, these laws set forth the conditions under which each agency could deny the necessary approvals.*

**Table 1: Federal, State, and/or Local Regulatory Responsibilities**

Agency	Type of Authorization (permit, license, stipulation, other)	Purpose

### V. List of Mitigations, Stipulations

*Mitigations, stipulations, and other enforceable controls required by FWP, or another agency, may be relied upon to limit potential impacts associated with a proposed Project. The table below lists and evaluates enforceable conditions FWP may rely on to limit potential impacts associated with the proposed Project. ARM 12.2.432(3)(g).*

**Table 2: Listing and Evaluation of Enforceable Mitigations Limiting Impacts**

Are enforceable controls limiting potential impacts of the proposed action? If not, no further evaluation is needed.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
--	---	-----------------------------

If yes, are these controls being relied upon to limit impacts below the level of significance? If yes, list the enforceable control(s) below			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Enforceable Control	Responsible Agency	Authority (Rule, Permit, Stipulation, Other)	Effect of Enforceable Control on Proposed Project	
Fish Health Inspection	FWP	Aquatic Health Advisory Committee	Minimizes disease transfer risk associated with movement of fish between waterbodies.	
Wild Fish Transfer	FWP	Wild Fish Transfer Committee	Ensures that movement of wild fish by FWP personnel is compatible with overall stewardship on Montana's fishery resources.	
AIS Early Detection & Monitoring	FWP	AIS Bureau	Minimizes the harmful impacts of AIS through the prevention and management of AIS into, within, and from Montana.	

## VI. Alternatives Considered

*In addition to the proposed project, and as required by MEPA, FWP analyzes the "No-Action" alternative in this EA. Under the "No Action" alternative, the proposed project would not occur. Therefore, no additional impacts to the physical environment or human population in the analysis area would occur. The "No Action" alternative forms the baseline from which the potential impacts of the proposed Project can be measured.*

Under the no-action alternative FWP would not introduce burbot to Crystal and Lavon Lakes. Without action, FWP would remain limited on their ability to improve the quality of the existing fishing opportunities in the lakes.

	Yes*	No
Were any additional alternatives considered and dismissed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\* If yes, a list and description of the other alternatives considered, but not carried forward for detailed review is included below

## VII. Summary of Potential Impacts of the Proposed Project on the Physical Environment and Human Population

*The impacts analysis identifies and evaluates **direct**, **secondary**, and **cumulative impacts**.*

- **Direct impacts** are those that occur at the same time and place as the action that triggers the effect.
- **Secondary impacts** "are further impacts to the human environment that may be stimulated or induced by or otherwise result from a direct impact of the action." ARM 12.2.429(18).
- **Cumulative impacts** "means the collective impacts on the human environment of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures." ARM 12.2.429(7).

Where impacts are expected to occur, the impact analysis estimates the **extent, duration, frequency, and severity** of the impact. The duration of an impact is quantified as follows:

- **Short-Term:** impacts that would not last longer than the proposed project.
- **Long-Term:** impacts that would remain or occur following the proposed project.

The severity of an impact is measured using the following:

- **No Impact:** there would be no change from current conditions.
- **Negligible:** an adverse or beneficial effect would occur but would be at the lowest levels of detection.
- **Minor:** the effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- **Moderate:** the effect would be easily identifiable and would change the function or integrity of the resource.
- **Major:** the effect would irretrievably alter the resource.

Some impacts may require mitigation. As defined in ARM 12.2.429, mitigation means:

- Avoiding an impact by not taking a certain action or parts of a project;
- Minimizing impacts by limiting the degree or magnitude of a project and its implementation;
- Rectifying an impact by repairing, rehabilitating, or restoring the affected environment; or
- Reducing or eliminating an impact over time by preservation and maintenance operations during the life of a project or the time period thereafter that an impact continues.

A list of any mitigation strategies including, but not limited to, design, enforceable controls, or stipulations, or both, as applicable to the proposed project is included in **Section VI** above.

FWP must analyze impacts to the physical and human environment for each alternative considered. The proposed project considered the following alternatives:

- **Alternative 1: No Action. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population**

Under the “No Action” alternative, the proposed project would not occur. Therefore, no additional impacts to the physical environment or human population in the analysis area would occur. The “No Action” alternative forms the baseline from which the potential impacts of the proposed Project can be measured.

Under the no-action alternative FWP would not introduce burbot to Crystal and Lavon Lakes. Without action, FWP would remain limited on their ability to improve the quality of the existing fishing opportunities in the lakes

- **Alternative 2: Proposed Project. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population**

See **Table 3** (Impacts on Physical Environment) and **Table 4** (Impacts on Human Population) below.



**Table 3 - Potential Impacts of Proposed Project on the Physical Environment**

PHYSICAL ENVIRONMENT	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
Terrestrial, avian, and aquatic life and habitats	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Potential direct impacts include:</p> <ul style="list-style-type: none"> <li>- Establishment of a burbot fishery within the native range where they can utilize a population of illegally introduced yellow perch as a food source.</li> <li>- Expansion of native burbot occurrence withing the Kootenai River drainage.</li> </ul> <p>The intent of the proposed project is to establish a population of native burbot for recreational purposes and expand the occurrence on native burbot in the Kootenai River drainage. Therefore, direct impacts to native burbot would be long term, beneficial and moderate.</p> <p>Potential secondary impacts include:</p> <ul style="list-style-type: none"> <li>- Through predation by burbot, illegally introduced yellow perch and stocked rainbow trout and kokanee abundance could be reduced. <ul style="list-style-type: none"> <li>o Mitigate through adjusting stocking rates for rainbow trout and kokanee to meet recreational needs.</li> </ul> </li> </ul> <p>Secondary impacts to illegally introduced yellow perch and stocked rainbow trout and kokanee abundance would be short term, adverse, and moderate.</p> <p>Potential cumulative impacts include:</p> <ul style="list-style-type: none"> <li>- Through reduced abundance from predation by burbot, size structure of illegally introduced yellow perch and stocked rainbow trout and kokanee could be improved through reduced competition for food resources.</li> </ul>

PHYSICAL ENVIRONMENT	Duration of Impact			Severity of Impact					
Resource	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
									Cumulative impacts to illegally introduced yellow perch and stocked rainbow trout and kokanee abundance would be long term, beneficial, and moderate. Any impacts to other terrestrial and avian life and habitats in the affected area would be short term, adverse and minor.
Water quality, quantity, and distribution	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impact to water quality, quantity, and distribution would be expected because of the proposed project. The proposed project constitutes adding burbot to the existing fish community and would not require use of any additional water resources. Therefore, no impact to water quality, quantity, and distribution would be expected because of the proposed project.
Geology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impact to geology would be expected because of the proposed project. The proposed project constitutes adding burbot to the existing fish community and would not require modification of geologic or physical features. Therefore, no impact to geology would be expected because of the proposed project.
Soil quality, stability, and moisture	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impact to soils would be expected because of the proposed project. The proposed project constitutes adding burbot to the existing fish community and would not require disturbance or alteration of soils. Therefore, no impact to soils would be expected because of the proposed project.
Vegetation cover, quantity, and quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impact to vegetation would be expected because of the proposed project. The proposed project constitutes adding burbot to the existing fish community and would not require disturbance or alteration of vegetation. Therefore, no impact to

PHYSICAL ENVIRONMENT	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
Resource	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
									vegetation would be expected because of the proposed project.
Aesthetics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impact to aesthetics would be expected because of the proposed project. The proposed project constitutes adding burbot to the existing fish community and would not require changing aesthetic values of the affected area. Therefore, no impact to aesthetics would be expected because of the proposed project.
Air quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impact to air quality would be expected because of the proposed project. The proposed project constitutes adding burbot to the existing fish community and would not result in air quality disturbance. Therefore, no impact to air quality would be expected because of the proposed project.
Unique, endangered, fragile, or limited environmental resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The burbot is currently ranked an S4 species in Montana and is considered a potential species of concern. The intent of the proposed project is to increase the distribution of native burbot in the Kootenai River drainage. Any impacts to burbot would be long term, beneficial and moderate. FWP is unaware of any other unique, endangered, fragile, or limited environmental resources in the affected area that would be impacted by the proposed project.
Historical and archaeological sites	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impact to historical and archaeological sites would be expected because of the proposed project. The proposed project constitutes adding burbot to the existing fish community and would not disturb land-based resources. Therefore, no impact to historical and archaeological sites would be expected because of the proposed project.
Demands on environmental	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impact to demands on environmental resources of land, water, air, and energy

PHYSICAL ENVIRONMENT	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
Resource	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
resources of land, water, air, and energy									would be expected because of the proposed project. The proposed project constitutes adding burbot to the existing fish community and would not require changing demands on land, water, air, and energy resources. Therefore, no impact to demands on environmental resources of land, water, air, and energy would be expected because of the proposed project.

**Table 4 - Potential Impacts of Proposed Project on the Human Population**

HUMAN POPULATION	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
Resource	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
Social structures and mores	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Burbot are native and unique to the Kootenai River drainage. They are not found anywhere else west of Montana's Continental Divide. They are of cultural significance to many Native American peoples, including the Kootenai Tribe of Idaho. They are also unique in body form and catchability from the trout species of which most anglers are accustomed. Many Montanans and visitors historically travelled considerable distances to enjoy burbot as an angling resource. As such, burbot are deeply engrained in the customs and lifestyles of Native Americans, residents, and visitors of Montana. The intent of the proposed project is to sustain and improve distribution of burbot in the Kootenai River drainage by stocking and/or translocating them into Crystal Lake.

HUMAN POPULATION	Duration of Impact			Severity of Impact					
Resource	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
									Therefore, the proposed project would provide long-term moderate beneficial impacts for any person who enjoys fishing for burbot or otherwise values the species' existence, the State of Montana, and the ecosystem in which they reside.
Cultural uniqueness and diversity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Burbot are culturally important to Native American peoples including the Kootenai Tribe of Idaho. Increases in native burbot distribution would help conserve this native species for the enjoyment of current and future recreational anglers. Increased native burbot distribution would be long term, moderate and beneficial.</p> <p>An expanded distribution of native burbot could serve as a potential brood source for future conservation efforts. A potential burbot brood source for future conservation efforts would be long term, moderate and beneficial.</p>
Access to and quality of recreational and wilderness activities	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to access would be expected because of this project. Angling quality should improve for yellow perch, kokanee, and burbot. Increases in angling quality would be long term, moderate and beneficial.
Local and state tax base and tax revenues	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant impacts to the local and state tax base and tax revenue would be expected because of the proposed project. The proposed project does not involve the acquisition of land or property, production of any products, or displacement of any businesses. Local businesses rely largely on recreation as a stable source of income and some people visiting the area to recreate will seek opportunities to fish for Montana's native burbot. A new fishery for burbot and improved yellow perch and kokanee size classes may become more popular with the angling public. Local businesses may benefit from increased interest and expenditures by visiting anglers.

HUMAN POPULATION	Duration of Impact			Severity of Impact					
Resource	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
									Increased interest and expenditures from increased interest in the fishery would be long term, minor and beneficial.
Agricultural or Industrial production	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The proposed project would not disturb or otherwise impact any agricultural or industrial land; therefore, no impacts to agricultural or industrial production would be expected because of the proposed project.
Human health and safety	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The proposed project would not disturb or otherwise impact human health and safety; therefore, no impacts to agricultural or industrial production would be expected because of the proposed project.
Quantity and distribution of employment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The proposed project would utilize existing FWP staff to conduct activities; therefore, no impacts to the quantity and distribution of employment in the area affected by the proposed project would be expected because of the proposed project.
Distribution and density of population and housing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The proposed project would use existing FWP staff to accomplish the proposed project and would not otherwise require or result in the movement of existing or new population into or out of the affected area. Therefore, no impacts to the distribution and density of population and housing in the area affected by the proposed project would be expected because of the proposed project.
Demands for government services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The proposed project would use existing FWP staff. No additional demands for government services would be expected due to the proposed project because these activities are included in the roles of affected staff. Any impacts would be short-term, consistent, and negligible, lasting only as long as the proposed project.
Industrial, agricultural, and commercial activity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The proposed project would not disturb or otherwise impact any industrial, agricultural, or commercial properties or operations; therefore, no impacts to

HUMAN POPULATION	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
									industrial, agricultural, or commercial activity would be expected because of the proposed project.
Locally adopted environmental plans and goals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FWP is unaware of any locally adopted environmental plans or goals that may be impacted by the proposed project.
Other appropriate social and economic circumstances	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Potential direct impacts include:</p> <ul style="list-style-type: none"> <li>- Increased prevalence of burbot available to anglers and others who value the species within the native range.</li> </ul> <p>Impacts to those who angle for burbot within their native range would be long term, beneficial and moderate.</p> <p>Potential secondary impacts include:</p> <ul style="list-style-type: none"> <li>- Reduced availability of illegally introduced yellow perch and stocked rainbow trout and kokanee. <ul style="list-style-type: none"> <li>o Mitigate through adjusting stocking rates for rainbow trout and kokanee to meet recreational needs.</li> </ul> </li> </ul> <p>Impacts to those who value illegally introduced yellow perch and stocked rainbow trout and kokanee would be short term, adverse and minor.</p> <p>Potential cumulative impacts include:</p> <ul style="list-style-type: none"> <li>- Improved size structure of illegally introduced yellow perch and stocked rainbow trout and kokanee available to anglers.</li> </ul> <p>Impacts to those who value illegally introduced yellow perch and stocked rainbow trout and kokanee would be long term, beneficial, and moderate.</p>

**Table 6: Determining the Significance of Impacts on the Quality of the Human Environment**

If the EA identifies impacts associated with the proposed project FWP must determine the significance of the impacts. ARM 12.2.431. This determination forms the basis for FWP's decision as to whether it is necessary to prepare an environmental impact statement. An impact may be adverse, beneficial, or both. If none of the adverse effects of the impact are significant, an EIS is not required. An EIS is required if an impact has a significant adverse effect, even if the agency believes that the effect on balance will be beneficial. ARM 12.2.431.

According to the applicable requirements of ARM 12.2.431, FWP must consider the criteria identified in this table to determine the significance of each impact on the quality of the human environment. The significance determination is made by giving weight to these criteria in their totality. For example, impacts identified as moderate or major in severity may not be significant if the duration is short-term. However, moderate, or major impacts of short-term duration may be significant if the quantity and quality of the resource is limited and/or the resource is unique or fragile. Further, moderate, or major impacts to a resource may not be significant if the quantity of that resource is high or the quality of the resource is not unique or fragile.

#### Criteria Used to Determine Significance

1	<p>The <b>severity, duration, geographic extent, and frequency</b> of the occurrence of the impact</p> <p><b>“Severity”</b> describes the density of the potential impact, while <b>“extent”</b> describes the area where the impact will likely occur, e.g., a project may propagate ten noxious weeds on a surface area of 1 square foot. Here, the impact may be high in severity, but over a low extent. In contrast, if ten noxious weeds were distributed over ten acres, there may be low severity over a larger extent.</p> <p><b>“Duration”</b> describes the time period during which an impact may occur, while <b>“frequency”</b> describes how often the impact may occur, e.g., an operation that uses lights to mine at night may have frequent lighting impacts during one season (duration).</p>
2	The probability that the impact will occur if the proposed project occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur
3	Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts
4	The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values
5	The importance to the state and to society of each environmental resource or value that would be affected
6	Any precedent that would be set as a result of an impact of the proposed project that would commit FWP to future actions with significant impacts or a decision in principle about such future actions
7	Potential conflict with local, state, or federal laws, requirements, or formal plans



## VIII. Private Property Impact Analysis (Takings)

*The 54<sup>th</sup> Montana Legislature enacted the Private Property Assessment Act, now found at § 2-10-101. The intent was to establish an orderly and consistent process by which state agencies evaluate their proposed projects under the "Takings Clauses" of the United States and Montana Constitutions. The Takings Clause of the Fifth Amendment of the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." Similarly, Article II, Section 29 of the Montana Constitution provides: "Private property shall not be taken or damaged for public use without just compensation..."*

*The Private Property Assessment Act applies to proposed agency projects pertaining to land or water management or to some other environmental matter that, if adopted and enforced without due process of law and just compensation, would constitute a deprivation of private property in violation of the United States or Montana Constitutions.*

*The Montana State Attorney General's Office has developed guidelines for use by state agencies to assess the impact of a proposed agency project on private property. The assessment process includes a careful review of all issues identified in the Attorney General's guidance document (Montana Department of Justice 1997). If the use of the guidelines and checklist indicates that a proposed agency project has taking or damaging implications, the agency must prepare an impact assessment in accordance with Section 5 of the Private Property Assessment Act.*

**Table 7: Private Property Assessment (Takings)**

<b>PRIVATE PROPERTY ASSESMENT ACT (PPAA)</b>			
<b>Does the Proposed Action Have Takings Implications under the PPAA?</b>	<b>Question #</b>	<b>Yes</b>	<b>No</b>
Does the project pertain to land or water management or environmental regulations affecting private property or water rights?	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action result in either a permanent or an indefinite physical occupation of private property?	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action deprive the owner of all economically viable uses of the property?	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 4a and 4b and continue with question 5)	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there a reasonable, specific connection between the government requirement and legitimate state interest?	4a	<input type="checkbox"/>	<input type="checkbox"/>
Is the government requirement roughly proportional to the impact of the proposed use of the property?	4b	<input type="checkbox"/>	<input type="checkbox"/>
Does the action deny a fundamental attribute of ownership?	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action have a severe impact of the value of the property?	6	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public general? (If the answer is NO, skip questions 7a-7c.)	7	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the impact of government action direct, peculiar, and significant?	7a	<input type="checkbox"/>	<input type="checkbox"/>
Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?	7b	<input type="checkbox"/>	<input type="checkbox"/>
Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?	7c	<input type="checkbox"/>	<input type="checkbox"/>
<b>Does the proposed action result in taking or damaging implications?</b>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Taking or damaging implications exist if **YES** is checked in response to Question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if **NO** is checked in response to question 4a or 4b.

If taking or damaging implications exist, the agency must comply with MCA § 2-10-105 of the PPAA, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.

**Alternatives:**

The analysis under the Private Property Assessment Act, §§ 2-10-101 through -112, MCA, indicates no impact. FWP does not plan to impose conditions that would restrict the regulated person's use of private property to constitute a taking.

## IX. Public Participation

*The level of analysis in an EA will vary with the complexity and seriousness of environmental issues associated with a proposed action. The level of public interest will also vary. FWP is responsible for adjusting public review to match these factors (ARM 12.2.433(1)). Because FWP determines the proposed action will result in limited environmental impact, and little public interest has been expressed, FWP determines the following public notice strategy will provide an appropriate level of public review:*

- *An EA is a public document and may be inspected upon request. Any person may obtain a copy of an EA by making a request to FWP. If the document is out-of-print, a copying charge may be levied (ARM 12.2.433(2)).*
- *Public notice will be served on the Montana Fish, Wildlife and Parks website at: <https://fwp.mt.gov/news/public-notices>*
- *Copies will be distributed to neighboring landowners to ensure their knowledge of the proposed project and opportunity for review and comment on the proposed action.*
- *FWP maintains a mailing list of persons interested in a particular action or type of action. FWP will notify all interested persons and distribute copies of the EA to those persons for review and comment (ARM 12.2.433(3)).*
- *FWP will issue public notice in the following newspaper periodical(s) on the date(s) indicated.*

Newspaper / Periodical	Date(s) Public Notice Issued
Western News	11/21/2023

- *Public notice will announce the availability of the EA, summarize its content, and solicit public comment.*
  - ***Duration of Public Comment Period:*** *The public comment period begins on the date of publication of legal notice in area newspapers (see above). Written or e-mailed comments will be accepted until 5:00 p.m., MST, on the last day of public comment, as listed below:*

**Length of Public Comment Period:** 15 days

**Public Comment Period Begins:** 11/16/2023

**Public Comment Period Ends:** 11/30/2023

Comments must be addressed to the FWP contact, as listed below.

- ***Where to Mail or Email Comments on the Draft EA:***

Name: BRIAN STEPHENS

Email: [BStephens@mt.gov](mailto:BStephens@mt.gov)

Mailing Address: 385 Fish Hatchery Road, Libby, MT 59923

## X. Recommendation for Further Environmental Analysis

<b>NO</b> further analysis is needed for the proposed action	<input checked="" type="checkbox"/>
FWP must conduct <b>EIS</b> level review for the proposed action	<input type="checkbox"/>

## XI. EA Preparation and Review

	<b>Name</b>	<b>Title</b>
<b>EA prepared by:</b>	Brian Stephens	Fisheries Management Biologist
<b>EA reviewed by:</b>	Michael E Hensler	Region One Fisheries Program Manager

## Appendix A: Literature Cited

- Arndt, S. K. A., and J. Hutchinson. 2000. Characteristics of a tributary-spawning population of burbot from Columbia Lake, British Columbia. Pages 48-60 in V. L. Paragamian and D. W. Willis, editors. *Burbot: biology, ecology, and management*. American Fisheries Society, Fisheries Management Section, Publication Number 1, Bethesda.
- Brown, C. J. D. 1971. *Fishes of Montana*. Big Sky Books, Montana State University, Bozeman.
- Dunnigan J, J. DeShazer, T. Ostrowski, M. Benner, J. Lampton, L. Garrow, and M. Boyer. 2019. Mitigation for the construction and operation of Libby Dam, 1/1/2018 – 12/31/18 Annual Report, 1995-004-00, {259 pages}.
- McPhail, J. D., and V. L. Paragamian. 2000. Burbot biology and life history. Pages 11-23 in V. L. Paragamian and D. W. Willis, editors. *Burbot: biology, ecology, and management*. American Fisheries Society, Fisheries Management Section, Publication Number 1, Bethesda.
- MFWP. 2018. Montana statewide fisheries management program and guide, 2019-2027, accessed December 16, 2020 at <http://fwp.mt.gov/fishAndWildlife/management/fisheries/statewidePlan/>.
- Rudolph, B.L., I. Andreller, and C.J. Kennedy. 2008. Reproductive success, early life stage development, and survival of westslope cutthroat trout (*Oncorhynchus clarki lewisi*) exposed to elevated selenium in an area of active coal mining. *Environ. Sci. Technol.* 42: 3109–3114.
- Rudstam, L.G., P.E. Peppard, T.W. Fratt, R.E. Bruesewitz, D.W. Coble, F.A. Copes, and J.F. Kitchell. 1995. Prey consumption by the burbot (*Lota lota*) population in Green Bay, Lake Michigan, based on a bioenergetics model. *Canadian Journal of Fisheries and Aquatic Sciences*. 52. 1074-1082.
- Scott, W. B., and E. J. Crossman. 1973. *Freshwater fishes of Canada*. Fisheries Research Board Canada, Bulletin 173: Ottawa.
- Selch, Trevor, 2014, Selenium concentrations in Lake Koocanusa resident fish: Montana Department of Fish Wildlife and Parks memo, accessed December 16, 2020, at [http://lakekoocanusaconservation.pbworks.com/w/file/117648513/2013%20Fish%20Se%20Koocanusa%20Memo\\_7-1-14\\_FINAL%20%282%29.pdf](http://lakekoocanusaconservation.pbworks.com/w/file/117648513/2013%20Fish%20Se%20Koocanusa%20Memo_7-1-14_FINAL%20%282%29.pdf).