



Montana Fish, Wildlife & Parks
4600 Giant Springs Road
Great Falls, MT 59405

February 17, 2021

Dear Interested Party:

The enclosed draft Environmental Assessment (EA) has been prepared for public review regarding a proposal to introduce Burbot into Martinsdale Reservoir. The proposed action is to transfer approximately 100-500 Burbot from a nearby source to Martinsdale Reservoir. Intent of the action is to create an additional, likely seasonal, recreational fishing opportunity.

Additional copies of the draft EA are available at Montana Fish, Wildlife & Parks in Great Falls or the draft EA is also available on the FWP website at <http://fwp.mt.gov/public-notices> . A public review and comment period will be 30 days and available February 17, 2021. Written comments will be accepted until 5 pm on March 19, 2021. Comments can be submitted electronically via email to fwpr4publiccom@mt.gov or can be mailed to the address below:

Montana Fish, Wildlife and Parks
Martinsdale Burbot Introduction Comments
4600 Giant Spring Road
Great Falls, MT 59405

Thank you for your interest and involvement.

Sincerely,

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Draft Environmental Assessment | 2/17/2021

Burbot Introduction to Martinsdale Reservoir

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PART 1. PROJECT SUMMARY

Project Title: Burbot Introduction to Martinsdale Reservoir

Project Location: Martinsdale Reservoir, Meagher & Wheatland Counties, Montana
Sections 13 & 24, Township 8 N, Range 11 E and Sections 18 & 19,
Township 8 N, Range 12 E.

Description of Project

Montana Fish, Wildlife & Parks (FWP) proposes to introduce Burbot in Martinsdale Reservoir. The species has not previously been introduced in the waterbody. The goal of the fish introduction would be to provide additional recreational angling opportunities in Martinsdale Reservoir.

Martinsdale Reservoir is a Montana Department of Natural Resources (DNRC) water project originally constructed in 1939. It is an off-stream impoundment of the South Fork Musselshell River near the town of Martinsdale, MT in Meagher County. The reservoir provides irrigation water storage for the Upper Musselshell drainage. As it is an irrigation impoundment and water levels in the reservoir can fluctuate greatly. The reservoir is approximately 985 surface acres at full pool.

On the north side of the reservoir there is an area that is managed as an FWP Fishing Access Site (FAS) and provides latrines, camping, and a developed boat ramp and dock. Boating, camping, and angling are popular activities. Based on the past 10-years of the Montana FWP Statewide Angler Pressure Survey, Martinsdale Reservoir has averaged approximately 8,400 angler-days a year (Long-term median value = 6,765; Min = 3,098 in 2019, Max = 13,630 in 2011). For comparison, the 10-year average at other nearby waters are summarized in the table below.

Table 1. Summary of angler pressure estimates for Martinsdale Reservoir and other nearby recreational reservoir fisheries. Data comes from the biennial Montana FWP Statewide Angler Pressure Survey from 2005 to 2019.

Waterbody	10-Year Average	Long-term Median Value (Range)
<i>Martinsdale Reservoir*</i>	8,482	6,766 (3,098 – 13,630)
Newlan Creek Reservoir	5,231	6,595 (4,203 – 9,321)
Deadman’s Basin Reservoir	4,418	5,353 (2,072 – 9,702)
Bair Reservoir	3,149	2,542 (842 – 3,905)
Lake Sutherlin	1,602	2,043 (633 – 2,901)

*Values reported for Martinsdale Reservoir do not include the 2007 Montana FWP Statewide Angler Pressure Survey results as the reservoir was drained for maintenance at that time. The reported value was 283 angler-days.

FWP has stocked the reservoir since 1940, primarily with Rainbow Trout. It is currently managed as a put-grow-and-take fishery for Rainbow Trout and Brown Trout. Yellowstone Cutthroat Trout and Westslope Cutthroat Trout have also been stocked historically. Wild populations of White Sucker and Longnose Sucker are also present in the reservoir and Mountain Whitefish have been occasionally sampled historically. Brook Trout, Rocky Mountain Sculpin (formerly Mottled Sculpin)



and Longnose Dace have also been documented in the drainage above the reservoir.

The Proposed Alternative would move Burbot from a nearby source via a wild fish transfer and follow FWP's wild fish transfer policies and guidelines to ensure no diseases or Aquatic Invasive Species are moved between waterbodies. The effort would attempt to move between 100-500 Burbot to be introduced to Martinsdale Reservoir. The transfer effort may begin as soon as the Spring of 2021 or more likely the fall 2021 and transfer efforts could reoccur as needed until an adequate number of Burbot (100-500) are introduced to allow the opportunity for the species to become established in the reservoir. The source location for the Burbot transfer is still undetermined however probable donor waters are Newlan Creek Reservoir and Lake Sutherlin (Smith River Reservoir).

Project Timeline

The proposed action would first occur in spring of 2021 or fall 2021 and could reoccur until an adequate number of Burbot are transferred.

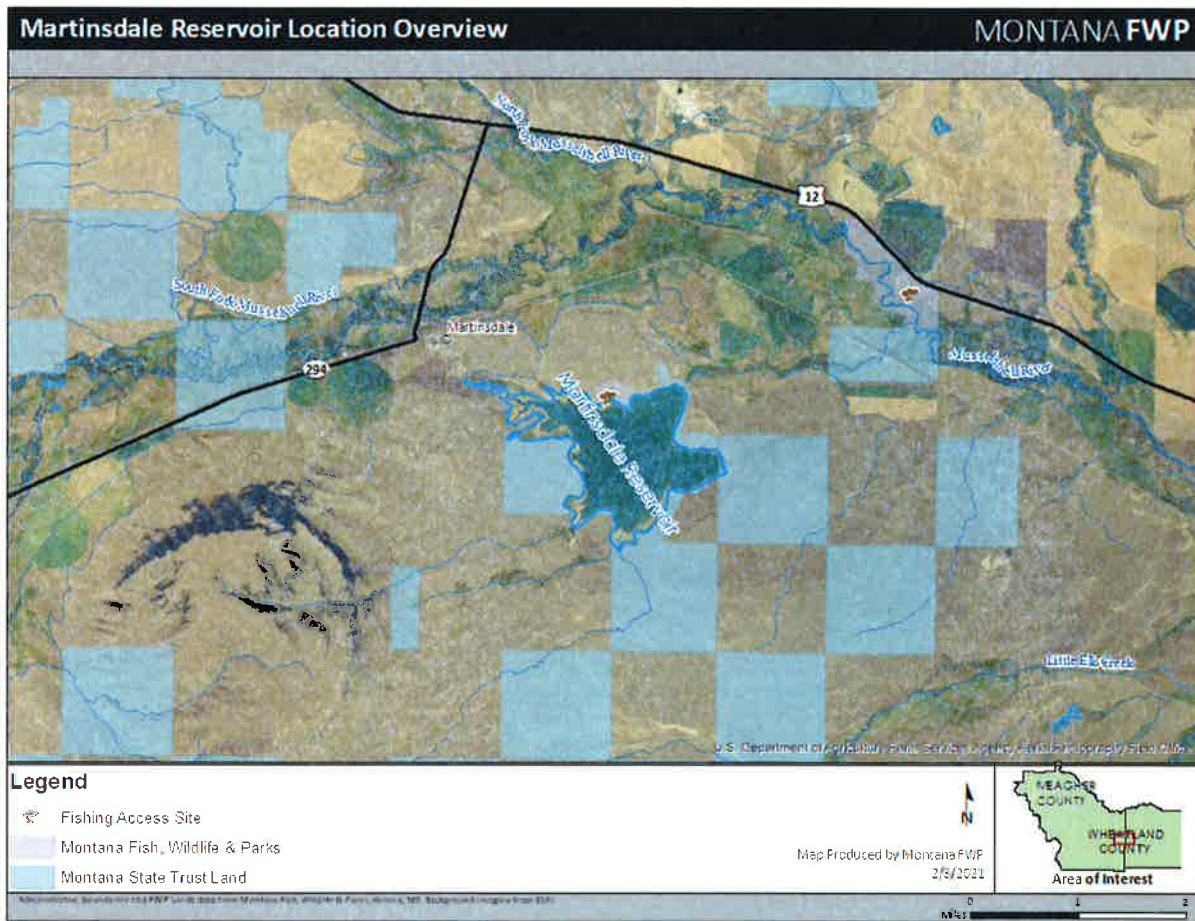


Figure 1. Map showing the general location of Martinsdale Reservoir.



Need and Benefits

The benefit of the Burbot introduction would be if Burbot become established at adequate abundance levels, the introduced species could provide an additional, though likely seasonal recreational angling opportunity in Martinsdale Reservoir.

Relevant Authorities

Montana Fish, Wildlife and Parks has the authority under state law (§ 87-1-301 Montana Code Annotated (MCA)) to “set the policies for the...propagation of the...fish...of the state for the fulfillment of all other responsibilities of the department related to fish and wildlife as provided by law.”

Furthermore, it is the policy of Montana FWP, under Administrative Rules of Montana (ARM) 12.7.601(4), that “Introduction of fish not indigenous to a particular drainage may be made only after careful study to ensure these fish will be beneficial to that area.” This EA is intended do an assessment of the proposed fish introduction and resulting impact and determine the benefits of an introduction.

Relevant Plans

The 2019-2027 *Statewide Fisheries Management Program and Guide* identifies the management direction at Martinsdale Reservoir to maintain the put, grow, and take fishery for Rainbow Trout and Westslope Cutthroat Trout while also managing Brown Trout as a recreational fishery with consumptive harvest. The proposed fish introduction would not be expected to alter the existing management direction. Depending on the success of the Burbot stocking, the species may be added to the management objectives for Martinsdale Reservoir in the future. If the proposed action occurs, Burbot would be managed under the standard daily/possession limits for the Central Fishing District.

Proposed Action and Alternatives to Proposed Action

Proposed Action

The Proposed Action is to transfer Burbot from a nearby source via a wild fish transfer. The effort would attempt to move between 100-500 Burbot to be introduced to Martinsdale Reservoir with intent to create a new fishery and opportunity.



Alternative A

The **No Action Alternative** would result in the status quo and no stocking of Burbot would occur.

Alternative B

The **Hatchery Burbot Alternative** would result in a similar introduction of Burbot to Martinsdale Reservoir, however, instead of using a nearby wild source the fish would originate from a hatchery source. Montana does not have a hatchery source of Burbot and thus the fish would have to be brought in from an out of state hatchery facility. These fish would be of different genetic source than those already in the Missouri River drainage.

Decision to be Made

The decision to be made is whether FWP should move forward with the proposed alternative of stocking Burbot in Martinsdale Reservoir via a wild fish transfer, as the species has not previously been stocked in that waterbody. Following completion of the Environmental Assessment (EA) and public comment period, the FWP Region 4 Regional Supervisor will issue a decision notice recommending a course of action. This course of action could be the Proposed Alternative, the No Action Alternative, the Hatchery Burbot Alternative, or an action that is within the scope of the analyzed alternatives. This EA and the public comments FWP receive are part of the decision-making process.

Other groups or agencies contacted, or which may have overlapping jurisdiction

No other groups or agencies have been contacted to date. Montana DNRC will be notified of the draft EA and has jurisdiction over the water management and dam operations at Martinsdale Reservoir.



PART 2. ENVIRONMENTAL REVIEW

Physical Environment

Table 1. Potential impact on physical environment.

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Unique, endangered, fragile, or limited environmental resources	X		X			X
2. Terrestrial or aquatic life and/or habitats			X			X
3. Introduction of new species into an area			X			X
4. Vegetation cover, quantity and quality				X		
5. Water quality, quantity and distribution (surface or groundwater)				X		
6. Existing water right or reservation				X		
7. Geology and soil quality, stability and moisture				X		
8. Air quality or objectionable odors				X		
9. Historical and archaeological sites				X		
10. Demands on environmental resources of land, water, air & energy			X			X
11. Aesthetics			X			X

Comments

1. At the HUC-5 level, Chrosomid dace (Northern Redbelly Dace and Northern Redbelly x Finescale Dace hybrids) are known species of concern present in the Musselshell River-Daisy Dean Creek drainage. The Proposed Alternative would be expected to result in minor impacts to Chrosomid dace in the upper Musselshell River as Burbot are not currently present in the river but could become so via escapement from the reservoir. If Burbot were to take up residence in the Musselshell River some predation of Chrosomid dace could occur. These impacts are anticipated to be minor and population level impacts would not be expected. However, it should be noted that a level of uncertainty exists, whereas it is unknown if Burbot would become established in the Musselshell



River and if they become established, their impact to other species at the population level.

Anticipated impacts would be similar for the Hatchery Burbot Alternative.

The No Action Alternative would result in no impacts to unique, endangered, fragile, or limited environmental resources.

2. Impacts to terrestrial and aquatic habitats would not be anticipated. It is anticipated the Proposed Alternative would impact aquatic species whereas Burbot are piscivores thus the introduced species would result in increased predation of wild suckers and stocked trout in Martinsdale Reservoir. Additionally, the Proposed Alternative could result in some additional competition for resources in the reservoir, anticipated impacts would not be significant and could possibly be overcome by adjusting trout stocking rates and/or sizes. Burbot would be expected to successfully spawn in Martinsdale Reservoir. The spawn and resulting eggs and larvae would provide additional forage for species present in the reservoir. Overall, anticipated impacts to terrestrial and aquatic species would be minor but uncertainty exists.

The Hatchery Burbot Alternative would have similar anticipated impacts as discussed above for the Proposed Alternative.

The No Action Alternative would result in no impacts to terrestrial and aquatic life and their habitats.

3. The Proposed Alternative would result in the introduction of a new species to Martinsdale Reservoir and the Upper Musselshell drainage. Burbot are not currently believed to be indigenous to the Upper Musselshell River. Burbot do occur nearby in the Smith River drainage (Lake Sutherland) and have occurred historically downstream of the town of Musselshell, roughly 190 river miles downstream of Martinsdale Reservoir. Sampling data suggests Burbot have not been historically abundant in the Lower Musselshell River, as they have only been documented in the river on 2 separate sampling events, once in 1998 near the town of Musselshell, the other in 1963 near the Missouri River confluence. Montana FWP did transfer Burbot into Petrolia Reservoir in 1973. Petrolia Reservoir is an irrigation impoundment on Flatwillow Creek, a major tributary to the lower Musselshell River.

Escapement of Burbot downstream from the Martinsdale Reservoir would be possible and likely. Water stored in Martinsdale is primarily used to supplement flow in the Musselshell River for onstream diversions downstream. Thus, fish that escape the reservoir are very likely to enter the Musselshell River. Once in the Musselshell River, escaped Burbot would be expected to persist, however, it is unlikely, although uncertain, that a wild population would establish in the Musselshell River due to habitat limitations. Escaped Burbot would be anticipated to forage on wild fish species present in the Upper Musselshell, with uncertain impacts on the wild trout fisheries of the Musselshell River



and its tributaries.

Burbot in Martinsdale Reservoir would be expected to naturally reproduce and establish a wild population. Similar reservoir habitats nearby, such as Lake Sutherland and Newlan Creek Reservoir have established wild Burbot populations. Outside of angling regulations and natural predation of eggs & juveniles, there would be little regulation of the Burbot population once established.

The Proposed Alternative would be anticipated to have minimal impacts on the genetic structure of existing populations. The possible source populations (Lake Sutherland and Newlan Creek Reservoir) are already within the Missouri River drainage. If escaped Burbot were to make it to the existing population in the Missouri River upstream of Fort Peck Reservoir, impacts to the genetic structure of the Missouri River population are anticipated to be insignificant.

Removing Burbot from Martinsdale Reservoir could theoretically be done, but for the consideration of this EA it would be most prudent to assume that they are unlikely to be removed once established. If deemed necessary, removing Burbot would likely consist of a combination of draining the reservoir and applying a piscicide. Draining the reservoir would have to be done with the cooperation of DNRC and the water users or coincide with drought conditions. The volume of water that would need to be chemically treated would be large thus would require significant expense in materials and the action would eradicate all fish.

Anytime fish are stocked in a waterbody there is a potential risk of introducing an Aquatic Invasive Species (AIS) and disease along with the fish. By complying with FWP's Wild Fish Transfer Policy, the associated AIS risks are minimal as the source waterbodies and populations are disease and AIS tested prior to any transfer. Additionally, FWP personnel ensure all due diligence occurs as it relates to disinfection, fish health, and AIS protocols.

The Hatchery Burbot Alternative would have unknown impacts to the genetic structure of existing Burbot populations in the Missouri River drainage above Fort Peck Reservoir. The use of an out of state hatchery source would introduce genetics to the Missouri River drainage that are not currently present. The impacts of introducing these genetics to the wild Missouri drainage Burbot population are uncertain. Otherwise, anticipated impacts from introducing a new species via the Hatchery Burbot Alternative would be similar to those listed above under the Proposed Alternative.

The No Action Alternative would not result in the introduction of a new species to the area.

10. The Proposed Action could result in increased recreational use of Martinsdale Reservoir stemming from additional angler use of the waterbody. These impacts would be anticipated to be seasonal and likely minor.

Impacts from the Hatchery Burbot Alternative would be similar.



The No Action Alternative would result in no change to the demands on environmental resources.

11. The potential for increased recreational use could impact aesthetics of the Martinsdale Reservoir area stemming from additional use and associated recreational equipment (e.g. ice houses, ice augers, boats, boat trailers, campers, etc.). The impacts to aesthetics would be anticipated to be minor in nature and variable based on angler pressure and season.

The Hatchery Burbot Alternative would be expected to have similar impacts to aesthetics as those mentioned above for the Proposed Alternative.

The No Action Alternative would not impact aesthetics.



Human Environment

Table 2. Potential impacts on human environment.

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Social structures and cultural diversity				X		
2. Changes in existing public benefits provided by wildlife populations and/or habitat			X			X
3. Local and state tax base and tax revenue				X		
4. Agricultural production				X		
5. Human health				X		
6. Quantity and distribution of community and personal income				X		
7. Access to and quality of recreational activities			X			X
8. Locally adopted environmental plans & goals (ordinances)				X		
9. Distribution and density of population and housing				X		
10. Demands for government services			X			X
11. Industrial and/or commercial activity				X		

Comments

2. The Proposed Alternative would be intended to improve recreational angling opportunities whereas Burbot, an additional species, would be present in Martinsdale Reservoir. Burbot fisheries are typically seasonally utilized by anglers and similar seasonal utilization would be anticipated at Martinsdale. It should also be acknowledged that, while the intention of the proposed action would be to improve public benefits, the action could result in unforeseen negative impacts to the existing fishery via increased predation/competition with the stocked trout fishery to the detriment of the public benefits currently enjoyed.



The Hatchery Burbot Alternative would result in similar impacts as summarized above under the Proposed Alternative.

The No Action Alternative would not impact public benefits at Martinsdale Reservoir.

7. The Proposed Alternative would be intended to increase angling opportunity in the form of a productive Burbot fishery thereby expanding upon and improving the quality of recreational opportunities at Martinsdale Reservoir. It should also be acknowledged that, while the intention of the proposed action would be to improve recreational opportunities, the action could result in unforeseen negative impacts to the existing fishery via increased predation/competition with the stocked trout fishery to the detriment of the recreational opportunities currently enjoyed.

The Hatchery Burbot Alternative would result in similar impacts as summarized above under the Proposed Alternative.

The No Action Alternative would not impact access or quality of recreational opportunities at Martinsdale Reservoir.

10. The Proposed Alternative would result in an increase in demands for government services in the form of EA preparation, disease testing, performing the wild fish transfer, and biological monitoring. These responsibilities would be absorbed into the existing responsibilities of the FWP Region 4 Fisheries Management project.

The Hatchery Burbot Alternative would result in fewer demands on government services, as no FWP disease testing or wild fish transfer would occur, otherwise impacts would be similar to those discussed under the Proposed Alternative.

The No Action Alternative would not impact government services.



Does the proposed action involve potential risks or adverse effects which are uncertain but extremely harmful if they were to occur?

No, the proposed action does not involve uncertain risks or adverse effects that would be extremely harmful.

Does the proposed action have impacts that are individually minor, but cumulatively significant or potentially significant?

No, this environmental review found that cumulatively/potentially significant impacts from the proposed action would not be anticipated.

PART 3. NARRATIVE EVALUATION AND COMMENT

This analysis did not reveal any significant impacts to the human or physical environment.

The Hatchery Burbot Alternative would have generally similar impacts as the Proposed Alternative, however, the use of a hatchery source from outside the Missouri River drainage would result in unknown impacts to the existing genetic structure of downstream wild Burbot populations. Because of this, the Proposed Alternative would be preferred over the Hatchery Burbot Alternative.

The No Action Alternative would result in no impacts to the physical or human environments. The No Action Alternative would eliminate all risks associated with the Proposed Alternative. Maintaining the status quo at Martinsdale Reservoir is not the preferred option at this time as FWP would like to increase recreational species diversity and angling opportunity in the area.

After consideration of the alternatives listed, the desired objectives, and any limitations identified in this analysis, it is recommended that the Proposed Alternative, as described in this Environmental Assessment, has the greatest potential of fulfilling the desired objectives while likely having minimal impacts to the human and physical environments.

PART 4. PUBLIC PARTICIPATION

Describe the level of public involvement for this project if any, and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?

Notice of this draft EA will be distributed to local recreational groups, local sporting goods stores, and other interested parties to ensure awareness of the proposed action. This EA will be posted on the FWP website and copies will be available upon request at FWP Offices. A notice of the proposed project and EA will be advertised in a statewide press release.



Due to the simple nature and minor impacts of the proposed action, the level of public involvement is appropriate for the proposed project.

Duration of comment period, if any:

The draft EA will be open for public comment for a period of 30 days from February 17, 2021 through March 19, 2021.

Comments can be submitted electronically via email to fwpr4publiccom@mt.gov or can be mailed to the address below:

Montana Fish, Wildlife & Parks
Martinsdale Burbot Introduction Comments
4600 Giant Springs Road
Great Falls, MT 59405

PART 5. EA CONCLUSION

Based on the significance criteria evaluated in this EA, is an EIS required?

No, an EIS is not required.

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.

Based on an evaluation of impacts to the physical and human environment stemming from the proposed action, this assessment revealed no significant negative impacts from the proposed action. Additionally, the proposed action is not expected to be highly controversial. Therefore, an EIS is not necessary and an environmental assessment is the appropriate level of analysis.

Name, title, address and phone number of the person(s) responsible for preparing the EA:

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Montana Fish, Wildlife, & Parks
4600 Giant Springs Rd
Great Falls, MT 59405
406-454-5853



List of agencies consulted during preparation of the EA:

Montana Fish, Wildlife, & Parks

Date Completed

February 17, 2021