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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
MISSOULA DIVISION

SWAN VIEW COALITION and FRIENDS OF THE WILD SWAN, Plaintiffs, vs. DEBRA HAALAND, Secretary of the Interior; MARTHA WILLIAMS, Director of the U.S. Fish and Wildlife Service; U.S. FISH AND WILDLIFE SERVICE; RANDY MOORE, Chief of the U.S. Forest Service; KURTIS STEELE, Forest Supervisor, Flathead National Forest; and U.S. FOREST SERVICE, Defendants.	Case No. CV 22-96-M-DLC-KLD **SECOND DECLARATION OF KEITH J. HAMMER**

I, Keith J. Hammer, hereby declare as follows:

1. I am the president of the Swan View Coalition, a Plaintiff in this case.

2. I have reviewed the Declaration of Kurt Steele filed on May 31, 2023, in this case. In particular, I have reviewed Steele's discussion of six Flathead National Forest projects with plan components implicated by this litigation. My Declaration includes discussion of two additional projects proposed by the Forest Service and implicated by this litigation.

3. I am familiar with these projects and am concerned that they authorize or propose activities that will inflict environmental harm on the Flathead National Forest and its sensitive wildlife, including grizzly bears and bull trout.

4. As displayed in the table below, in the aggregate these projects propose to add at least 82.8 miles of roads to the Flathead National Forest system— and potentially as many as 104 miles if the Forest Service ultimately pursues full implementation of Mid-Swan Alternative B—through new road construction or reconstruction of formerly decommissioned roads:[1]

[1] A "decommissioned" road is one "that has been stabilized and restored to a more natural state" (36 CFR § 212.1), and parallels Amendment 19's requirement that the Forest Service reclaim the entire length of a road to remove it from total road-density calculations. The requirement to restore a decommissioned road to a more natural state distinguishes decommissioning from the Revised Plan's new impassable road standard, which requires only the placement of a barrier at the road entrance.

Project Name	NEPA Status	Historic Road Returned to System	New System Road	Total Added to System
Taylor Hellroaring	FDN	3.2	0.8	4.0
Crystal Cedar	FDN		0.9	0.9
Frozen Moose	FDN	13.0		13.0
Mid-Swan[2]	DROD	2.0	8.7	10.7
Bug Creek	FDN	10.1	3.2	13.3
Lake Five	FDN	0.6	4.3	4.9
Spotted Bear Mtn	FDN	0.9	2.5	3.4
Dry Riverside	PA	31.5	1.1	32.6
Total		**61.3**	**21.5**	**82.8**

FDN = Final Decision, DROD=Draft Record of Decision,
PA=Proposed Action in Scoping Document

By comparison, under prior Amendment 19, only 3.2 miles of new roads were built in the Forest in grizzly bear habitat for the period between 1996 and 2010—which was a period during which the Forest Service issued monitoring reports that disclosed such data. See FS-171069. Accordingly, within the first five years of project planning under the Revised Forest Plan challenged in this case, the Forest Service has proposed or authorized more than 25 times the amount of road construction in grizzly bear habitat that occurred over a 15-year period under Amendment 19.

[2] The Mid-Swan FEIS Alternative B proposes 31.9 miles of road construction.

Dry Riverside Project

5. A significant portion of this new road construction is associated with the proposed Dry Riverside Project. The Forest Service issued a NEPA Scoping Document setting forth a Proposed Action ("PA") addressing this project in November 2022. The Dry Riverside PA disclosed that the proposed project would build 32.6 miles of system roads in grizzly bear and bull trout habitat for the purpose of logging and other vegetation treatment activities. See Dry Riverside PA at 6. A true and correct copy of relevant excerpts from the Dry Riverside PA is attached as Exhibit 1. Accordingly, the Dry Riverside Project alone contemplates more than ten times the amount of road construction that occurred across all of the Flathead National Forest's grizzly bear habitat during the previously discussed 15-year period when such activities were governed by Amendment 19.

Mid-Swan Project

6. The Forest Service issued a Draft Record of Decision ("Draft ROD") addressing the Mid-Swan Project in September 2021. The Draft ROD disclosed that the agency selected an alternative for the Mid-Swan Project that would build 10.7 miles of system roads in grizzly bear and bull trout habitat for the purpose of undertaking vegetation treatment activities. See Draft ROD at 2, 9-10. A true and correct copy of relevant excerpts from the Mid-Swan Draft ROD is attached as Exhibit 2. The agency also released a Final Environmental Impact Statement

("FEIS") for the Mid-Swan Project in September 2021. The FEIS for the Mid-Swan Project proposed Alternative B, wherein the agency would build 31.9 miles of new permanent roads in grizzly bear and bull trout habitat for the purpose of undertaking vegetation treatment activities. See FEIS at 74. Although the agency chose a reduced Alternative B for the Mid-Swan Project, Forest Supervisor Kurt Steele stated in the Draft ROD that he "still consider[s] full implementation of Alternative B the best option for meeting the purpose and need for this project area" and his Draft ROD held open the possibility that the Forest Service will take further steps to implement the entirety of Alternative B in the future. Draft ROD at 9. The full implementation of Alternative B would nearly triple the road miles constructed for this project. A true and correct copy of relevant excerpts from the Mid-Swan FEIS is attached as Exhibit 3.

7. Because I was concerned about the Mid-Swan Project's proposed road-construction activities, in September 2020 I emailed a Forest Service official involved in project planning, Joe Krueger, to inquire how the agency could undertake this Project's proposed road construction consistent with applicable limits on total motorized route density in grizzly bear habitat. Mr. Krueger's response demonstrated that the Forest Service is relying on gating or other obstructions placed at the road entrance to claim that various portions of the proposed new road mileage for this project will not violate limits on total

motorized route density, consistent with the Revised Forest Plan challenged in this case. A true and correct copy of my email exchange with Mr. Krueger is attached as Exhibit 4. By comparison, under former Flathead Forest Plan Amendment 19, to reclaim a road and thus omit it from calculations of total motorized route density, the Forest Service was required to, at a minimum: (1) treat the first 200 feet of road to preclude its use as a motorized or non-motorized travelway; (2) scatter debris on the remainder of the road and treat the surface to encourage revegetation and discourage its use as a motorized or non-motorized travelway; and (3) remove all stream culverts from under the road. See FS-178392. In my experience, the more extensive road-reclamation activities required under Amendment 19 substantially prevented the reclaimed road from being used as a road or trail and thereby reduced trespass and other human uses of reclaimed roads, thus providing greater habitat security for wildlife, as compared to the much more limited activities required to deem a road "impassable" under the Revised Forest Plan. See FS-065788 (2004 Swan View Coalition report on effectiveness of road closures).

8. The Mid-Swan Final EIS asserts that negative watershed impacts of proposed new roadbuilding, such as delivery of sediment to bull trout habitat, would be offset by plans to decommission 44.9 miles of existing roads. Mid-Swan FEIS at 75-77 (Exhibit 3). However, the Final EIS also makes clear that

implementation of such decommissioning activities is subject to available funding and is not guaranteed. Id. at 54. I am therefore concerned that these proposed offsetting road-decommissioning activities may, in whole or in part, not occur. This concern is heightened by the fact that the Forest Service's scoping notice for another recent project proposal in the Flathead National Forest, the Bug Creek Project, reports that the agency authorized 83.9 miles of road decommissioning pursuant to the 1996 Crane Mountain Project decision but never implemented 59.8 miles of that planned decommissioning, and ultimately proposed to forego that decommissioning and add those 59.8 road miles back into the forest road system. A true and correct copy of the relevant excerpt from the scoping notice for the Bug Creek Project proposal is attached as Exhibit 5. In July 2022, the Forest Service issued a Final Environmental Assessment for the Bug Creek Project proposal that detailed the now-proposed fate of the 59.8 miles of roads that were never decommissioned as the Forest Service promised they would be. Almost all of those to-be-decommissioned roads would instead be kept in the road system and left open seasonally or simply closed yearlong with a barrier. Only three of those roads, totaling 0.98 miles, are again promised to be decommissioned. Final Bug Creek EA, at 199-201. A true and correct copy of the relevant excerpt from the Final Environmental Assessment for the Bug Creek Project proposal is attached as Exhibit 6. In any case, the unimplemented Crane Mountain Project road

decommissioning is part of a larger body of more than 125 miles of road decommissioning that was authorized by the Forest Service but never implemented over the past 30 years. See FS-057301-22 (spreadsheet analysis of Flathead road decommissioning projects). This record of Forest Service inaction on decommissioning authorizations demonstrates that proposed mitigation in the form of road decommissioning on the Flathead National Forest may not be implemented and is certainly not guaranteed to occur.

Frozen Moose Project

9. The Frozen Moose Project also threatens significant road-related impacts in the Flathead National Forest. According to a Final Decision Notice for this Project issued by the Forest Service in April 2021, this project involves logging and other vegetation management activities across 7,250 acres in the northern portion of the drainage of the North Fork of the Flathead River. Frozen Moose Final Decision Notice at 1-2. To facilitate these activities, the Forest Service will rebuild and return 13 miles of "historical" Forest Service roads to the Flathead National Forest system. Id. at 2. While these roads would purportedly be managed as "impassable," the Final Decision Notice makes clear that this means treating as little as the first 50 feet of the road with nothing more than rock barriers or berms to make it impassable to wheeled motorized vehicles during the grizzly bear non-denning season, not comprehensively treating the entire road as was

required under former Flathead Forest Plan Amendment 19. See id. at 45. As discussed above, in my experience, this more limited treatment allows the road to continue being used as a road and/or trail and leaves it vulnerable to trespass. This project proposes no road decommissioning to offset its proposed road reconstruction. Although the agency has authorized the Frozen Moose Project, according to Supervisor Steele's May 31, 2023 declaration, this project is not yet being implemented. Steele Decl. at 8-9. However, as a recipient of timber sale prospectuses involving the Flathead National Forest, I have thus far seen two Frozen Moose timber sales already advertised for contractor bids that would build 8.7 miles of road, over half of the total road building called for in the Final Decision Notice. A true and correct copy of relevant excerpts from the Final Decision Notice for this project is attached as Exhibit 7.

Bug Creek Project

10. The Bug Creek Project is another significant logging and road-building project authorized in the Flathead National Forest, specifically in the already heavily roaded and logged northern end of the Mission Mountains. The Forest Service issued a Final Decision Notice and an Environmental Assessment for this Project in July 2022. The agency is currently implementing the Bug Creek Project, Decl. Kurt Steele at 3-4, which once finished will build 3.2 miles of new roads and rebuild 10.1 miles of roads on "existing road templates," for a total of

13.3 miles of project-related roads added to the forest road system. Environmental Assessment at 12. This road construction and reconstruction is occurring in an area, the Crane Mountain Bear Management Unit Subunit, where open and total motorized route densities are excessive and security core grizzly bear habitat is inadequate in comparison to thresholds established by scientific research on grizzly bear habitat needs in the Flathead National Forest—i.e., the same thresholds that were used to set maximum road density limits and minimum security core requirements under former Flathead Forest Plan Amendment 19. See USFWS_037345-46 (Revised Plan revised biological opinion). Accordingly, I am concerned that these roads threaten to further reduce already inadequate grizzly bear habitat security in this area. A true and correct copy of excerpts from the Environmental Assessment for this project is attached as Exhibit 6.

Taylor Hellroaring, Hellroaring Basin, Crystal Cedar, Spotted Bear Mountain, and Lake Five Projects

11. The Forest Service issued a final decision notice in November 2019 for the Taylor Hellroaring Project, which is a logging and other vegetation management project located on 1,813 acres near Whitefish, Montana, that would build 4.0 miles of system road. Taylor Hellroaring Final Decision Notice at 2. The agency issued a final decision notice in March 2020 for the Hellroaring Basin Improvements Project, which would expand ski developments on 802 acres near the Whitefish Mountain Resort. Hellroaring Basin Improvements Project Final

Decision Notice at 5. The agency also issued a final decision notice in March 2020 for the Crystal Cedar Project, which is a logging and related vegetation management project located on 3,722 acres near Columbia Falls, Montana. Crystal Cedar Final Decision Notice at 1-2. The agency issued a final decision notice in August 2022 for the Lake Five Project, located between Coram and West Glacier, Montana, which involves 4.9 miles of system road construction. Lake Five Final Decision Notice at 1-2. The agency issued a final decision notice in December 2022 for the Spotted Bear Mountain Project, located southeast of Hungry Horse, Montana, with 3.4 miles of planned road construction. Spotted Bear Final Decision Notice at 1-2. Together, these projects authorize 13.2 miles of road construction and reconstruction with no requirement for road reclamation consistent with the comprehensive requirements of former Flathead Forest Plan Amendment 19. These projects propose only 1.8 miles of road decommissioning associated with the Lake Five Project to offset the road construction and reconstruction they have authorized. Lake Five Final Decision Notice at 2. A true and correct copy of relevant excerpts from the decision notices for these projects is attached as Exhibits 8, 9, 10, 11, and 12.

12. I am concerned that implementing all of these projects, which reflect and incorporate the Forest Service's abandonment of the requirements of former Flathead Forest Plan Amendment 19, will harm grizzly bears by increasing human-

caused grizzly mortalities; increasing bears' habituation to humans; limiting grizzlies' use of habitat; and disturbing bears' normal feeding, breeding, and sheltering activities. I am also concerned that implementing these projects will harm bull trout by reducing water quality as a result of road construction, reconstruction, and maintenance activities; sedimentation and other pollutants from roads entering streams and lakes; and sedimentation and other adverse impacts to water bodies as a result of catastrophic failure of roads and culverts. For these reasons, implementation of these projects threatens to irreparably harm my interest in the Flathead National Forest and its wildlife.

Road Closure Effectiveness Survey

13. Because of the Forest Service's increasing reliance on road closure devices to protect wildlife habitat and other values within the Flathead National Forest, Swan View Coalition conducted a survey of Forest Service road closure devices across the Flathead National Forest's Swan Valley Geographic Area in summer 2022. Specifically, Swan View Coalition inspected 303 Forest Service road closure devices during this survey. The objective of the survey was to assess the effectiveness of road closure devices and compare its results with the Forest Service's analysis. The report detailing the results of this survey ("2022 Road Closure Survey") is attached as Exhibit 13. The 2022 Road Closure Survey found only 53 percent of road closure devices effective at preventing motorized use. 2022

Road Closure Survey at 11. In comparison, the Forest Service has found 92 percent of road closure devices effective at preventing motorized use Forest-wide. Id.

14. To conduct the 2022 Road Closure Survey, I drove each Forest Service road open to motorized travel in the Swan Valley Geographic Area. I located roads marked closed to motorized travel on Forest Service maps and inspected their closure devices. 2022 Road Closure Survey at 6. For each of the 303 road closure devices inspected, I filled out a hard copy of Swan View Coalition's Road Closure Effectiveness Form and took at least one picture of the device. Id. The Road Closure Effectiveness Form documented the type of road closure device observed (such as gate, barrier, or sign), whether there was evidence of motor vehicles traveling over, through, or around the device, whether space allowed for a potential detour around the device, and other information. Id. at Appendix A. Closure devices with no evidence of motor vehicle use behind the closure were marked "effective," whereas devices with evidence of motor vehicle use behind the closure were marked "ineffective." Id. at Appendix A.

15. The survey found only 53 percent of road closure devices to be effective at stopping motor vehicle travel. Id. at 11. In comparison, after inspecting 1,614 road closure devices Forest-wide in 2019 and 2020, the Forest Service claimed to find 92 percent of devices effective at restricting public

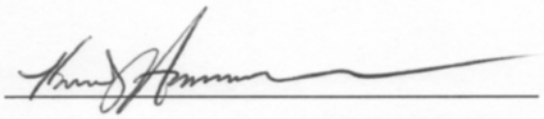
motorized use. Id. A portion of this discrepancy may be attributable to the agency exempting administrative and logging contractor road use in its determination of closure effectiveness. Id. However, even accounting for administrative and logging contractor use, the effectiveness rate from Swan View Coalition's 2022 Road Closure Survey only rises to 68 percent, far from the 92 percent reported by the Forest Service. Id.

16. The 2022 Road Closure Survey also showed it may take years for the Forest Service to rectify road closure devices that are ineffective at preventing motorized use. Id. at 8-10. For example, in August 2016, I documented evidence of full-size passenger vehicles bypassing boulders used as a road closure device on Forest Service Road 5392Y, which is located near Birch Creek along the western slope of Mount Aeneas in the Swan Range. Id. at 8. When I visited the road five years later, in October 2021, I found the Forest Service had not remedied the ineffective closure. Id. On that visit, I found a decomposing wolverine carcass in the middle of closed road 5392Y. Id. Although it was impossible for me to definitively determine this wolverine's cause of death, I believe it is unlikely that this wolverine simply died of natural causes in the middle of closed road 5392Y, so I believe it is reasonable to be concerned that this wolverine death represented a human-caused mortality. Although I reported the ineffective road closure of road 5392Y to the Forest Service district wildlife biologist in February 2022, the closure

had not been repaired as of my most recent visit to the site in July 2023. On other purportedly closed system roads, I have observed that motor vehicle traffic has completely flattened earth berms or gates have been left open, enabling motor vehicle traffic. Id. at 10. I have observed that it often takes years for the Forest Service to rectify these ineffective road closures. Id. I have observed motor vehicle detours around road closure devices that greatly exceed the 50 feet of road entrance blocking prescribed by the revised Forest Plan to render a road "impassable" to motor vehicles. Id. at 17.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on August 1, 2023, in Kalispell, Montana.



Keith J. Hammer

Exhibit 1

Dry Riverside: Proposed Action

Project Area

The Dry Riverside Project is located within the Hungry Horse and Spotted Bear Ranger Districts of the Flathead National Forest. The project area is approximately 54,975 acres and is located southeast of the town of Hungry Horse, within Flathead County, MT. In general, the project area is located south of Mount Grant, north of Crossover Mountain, east of the Hungry Horse Reservoir, and west of the divide between the South Fork and Middle Fork drainages (refer to figure 1. vicinity map).

Ownership within the project area is 100 percent National Forest System (NFS) lands. All proposed activities would occur on NFS lands. None of the project area is located within the wildland-urban interface (WUI), established by the Flathead County Community Wildfire Protection Plan (2021).

The Flathead National Forest 2018 Forest Plan

The 2018 forest plan provides the management direction for all resources on the Flathead National Forest. The forest plan was developed following the process and requirements set forth in the 2012 NFS land management planning rule (36 CFR § 219). The rule requires that forest plans provide for ecological sustainability and contribute to social and economic sustainability, using public input and the best available scientific information to inform plan decisions.

Management area direction

The forest plan provides an integrated set of management direction that provide for the social, economic, and ecological sustainability and multiple uses of the Flathead National Forest's lands and resources. In addition to forestwide and geographic area direction, the forest plan designates management areas; these areas are assigned sets of plan components such as desired conditions, suitable uses, and in some areas either standards or guidelines or both.

The Dry Riverside project area is divided into the management areas (MA) displayed in table 1.

Table 1. Management areas within the Dry Riverside project area

Management area	Acres	Management area description
1a Designated Wilderness Area	10503	These areas are managed to protect their wilderness character as defined by the Wilderness Act of 1964.
5a Backcountry Non-Motorized Year-Round	11850	Backcountry area that provides for less developed recreation opportunities for year-round nonmotorized use.
5c Backcountry Motorized Over-Snow Vehicle Use	4866	Backcountry area that provides for less developed recreation opportunities for motorized over-snow vehicle use.

Proposed Action

The proposed action is a set of management actions to meet the purpose and need for action as described above. To reduce the risk of disturbance to grizzly bears during the spring period, most project activities would occur between July 1 and April 1. Table 2 and 3 provide a summary of the activities of the proposed action.

Table 2. Summary of proposed vegetative treatments

Proposed vegetation treatments	Acres
Commercial thin	4,189
Seed tree	372
Shelterwood	55
Total proposed commercial treatment	**4,616**
Precommercial thin	338
Understory removal	313
Prescribed burn	2,569
Vista cut	39
Whitebark pine restoration	727
Total proposed noncommercial treatment	**3,986**

Table 3. Summary of proposed road activities

Proposed road management	Miles
Proposed NFS Road using historic template	20.8
Proposed NFS Road using existing template	10.7
Proposed NFS Road new construction	1.1
Temporary road using existing template	2.8
Temporary road new template	2.2
Total proposed NFS Road	32.6
Total proposed temporary road	5.0
Proposed aquatic restoration (not an NFS Road)	0.6
Other road activities	**Quantity**
Culvert removals on NFS Roads	1

Proposed Vegetation Treatments

To meet the purpose and need of the project, several different silvicultural treatments are proposed:

Commercial thin is an intermediate treatment that retains the healthiest largest trees. The objective of this treatment is to reduce stand density to improve forest growth and resilience. Leave tree selection would favor fire-tolerant species, including western white pine, western larch, ponderosa pine and Douglas-fir. These trees would then have more growing space, light, nutrients, and water increasing their insect, disease, and fire tolerance. Commercial thinning would also achieve fuels reduction objectives by reducing tree densities.

Exhibit 2

Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Northern Region/Flathead National Forest September 2021

Draft Record of Decision

Mid-Swan Landscape Restoration and Wildland Urban Interface Project

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Mid-Swan Landscape Restoration and Wildland Urban Interface Project

Draft Record of Decision

Lake and Missoula Counties, Montana

Lead Agency:	**USDA Forest Service**
Responsible Official:	**Kurt Steele, Forest Supervisor** 650 Wolfpack Way Kalispell, MT 59901
For Information Contact:	**Joe Krueger, Project Leader** 650 Wolfpack Way Kalispell, MT 59901 (406) 758-5243

Abstract: The Forest Service has prepared a final environmental impact statement to evaluate and disclose the predicted environmental effects of the Mid-Swan Landscape Restoration and Wildland Urban Interface Project. Through this project, the Forest Service is proposing to decommission, store and improve existing Forest Service System roads; construct permanent and temporary Forest Service roads; remove existing fish barriers; enhance suitable beaver habitat; treat vegetation; use prescribed fire; restore whitebark pine and western white pine; and amend the Flathead National Forest Plan through two project-level Forest Plan amendments. The final environmental impact statement includes three alternatives. The no-action alternative does not include any proposed actions associated with this project, alternative B includes a greater extent of activities, and alternative C includes less activities than alternative B. All actions are proposed to be implemented on the Swan Lake Ranger District of the Flathead National Forest. The actions are being proposed to restore and maintain terrestrial and aquatic biodiversity, improve the resilience of forest ecosystems, and reduce fire behavior in the wildland-urban interface and in areas that have influence on fire behavior within the wildland-urban interface.

The Forest Service has selected a reduced version of alternative B.

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My Decision

Based upon my review of all alternatives, my consideration of the effects to the ecological, social, and economic environment, and the interagency and public engagement throughout the planning process, I have selected a reduced alternative B for the Mid-Swan Landscape Restoration and Wildland Urban Interface Project. The selected alternative is based on alternative B. It best fulfills the management direction for the project area, and is responsive to local government, tribal, and public concerns. This decision is based on sound analysis and best available science that strongly weigh in favor of the need for active restoration of this landscape to restore and maintain terrestrial and aquatic biodiversity considering a changing climate, and to reduce fire behavior in the WUI and in those areas that influence fire behavior within the WUI. While the FEIS analyzes actions and effects across a 15-year implementation schedule, my decision authorizes the following actions outlined in Table 2 and Table 3, below, and displayed in map figures in appendix A to this draft record of decision. The decision includes the incorporation of design criteria and process requirements included with the FEIS Appendix A: Implementation Guide on Restoration. Activities associated with the following activity areas are **not** authorized: PC4-PC8, MS5-MS11(w), PW1-PW5, CJ1-CJ6 and SL1-SL3. If appropriate, a second record of decision and associated objection and USFWS consultation process will be made to implement actions that have been evaluated in the FEIS but not included in this record of decision.

The purpose of this change is to respond to concerns that the implementation schedule was too long and didn't adequately allow continued post-decision public involvement. By limiting the scope of this decision, the Agency is committed to further public involvement, allowing interested parties to be meaningfully involved in the remaining actions analyzed in the FEIS.

This approach will:

- Commit the Forest Service to an additional public involvement process by providing another objection period for the remaining actions, if approved, that are not included in this decision.
- Allow the planning team to evaluate and responsible official to authorize remaining activities based on monitoring and/or changed conditions.
- Demonstrate project compliance with forest plan direction, especially grizzly bear timing restrictions.
- Provide for additional USFWS consultation process for any remaining actions, if approved.

The following table (Table 1) is a description of the actions that are being authorized in this DROD with a comparison to the actions as analyzed in the FEIS.

Table 1. Summary of actions by selected alternative and alternatives B and C as analyzed in the FEIS.

Action	FEIS Alternative B[1]	Record of Decision Selected Alternative[1]	FEIS Alternative C
Commercial harvest	37,792 acres	17,858 acres	20,124 acres
Other mechanized treatments with activity fuel treatments	10,643 acres	3,446 acres	6,722 acres
Non-Mechanized treatments with non-activity fuel treatments	49,420 acres	31,874 acres	21,587 acres
Commercial harvest in ORMZ	6,977 acres (footprint)	3,630 acres (footprint)	0 acres

Action	FEIS Alternative B[1]	Record of Decision Selected Alternative[1]	FEIS Alternative C
Total new road construction	31.9 mi. perm 9.4 mi. temp	10.7 mi. perm 6.0 mi. temp	7 mi. perm 0 mi. temp
Mileage of FS roads improved to meet BMPs	491 mi.	225 mi.	429 mi.
Number of culverts removed2	285 (71 are on roads not used for com or mech treatment)	132	285 (71 are on roads not used for com or mech treatment)
Mileage of Roads decommission	44.9 (11 of these miles are not used for com or mech treat)	23.5	44.9 (11 of these miles are not used for com or mech treat)
Actions in designated wilderness (Mission Mountains)	8,638 acres of prescribed fire 1,987 acres of direct seeding whitebark pine	5,887 acres of prescribed fire 1,860 acres of direct seeding whitebark pine	0 acres of prescribed fire 0 acres of direct seeding whitebark pine
Actions in recommended wilderness (Swan Front)	7,788 acres prescribed fire and whitebark pine restoration	7,788 acres prescribed fire and whitebark pine restoration	5,800 acres prescribed fire and whitebark pine restoration

[1]Project specific amendments are needed to address vegetation treatments in Lynx habitat as well as motorized use (helicopter transport and use of chainsaws) in recommended wilderness.

[2]Actual parameter is road/stream crossings hydrologically disconnected. Many existing crossings will not have a culvert, either removed already, or crossing of minor intermittent/ephemeral stream. 236 of the crossings are over intermittent streams.

The following tables (Table 2 and Table 3) summarize the authorized actions by implementation unit. In addition to the authorized actions in Tables 2 and 3, this DROD authorizes 1,280 acres of beaver habitat restoration, and fish barrier removal on four existing barriers. These activities will be scheduled concurrent with the commercial timber sales and or timed to be completed within 5 years of timber sale completion in priority watersheds as described in the Forest Plan. Some activities may be implemented during winter and/or can be completed within less than 30 days and may therefore occur outside the estimated implementation schedule. Figure 1 and Figure 2, below, demonstrate how authorized project activities will be distributed in both space and time across the project area.

Rationale for the Decision

I chose a reduced alternative B because it best responds to the purpose and need and management direction for the project area as well as reflects the concerns of being adaptive to changed circumstances and new information that are likely to occur on this landscape. This decision responds to concerns regarding additional opportunities to provide formal comments and consultation needs if the Forest Service elects to implement the remaining portions of actions evaluated in the FEIS. I still consider full implementation of Alternative B to be the best option for meeting the purpose and need for this project area, especially to achieve the landscape scale objectives as evaluated in the FEIS. However, I recognize the concerns regarding implementing the extent of these actions and am committed to engaging with the interested stakeholders through a subsequent decision and objection process as well as an additional consultation process with USFWS on any future decisions not authorized in this record of decision. Therefore, actions authorized in this decision only span implementation units scheduled to start implementation through 2029.

The Forest Service is responsible for management of 174,205 acres within the project area. Of this, the Forest Service manages approximately 39,626 acres that are classified as the wildland-urban interface (WUI) by Lake and Missoula counties. This decision authorizes approximately 19,000 acres of vegetation management actions within the WUI as a focused landscape-scale strategy to reduce fuels in the wildland-urban interface. The wildland-urban interface and surrounding areas in this landscape are at a high risk of uncharacteristic wildfire (similar conditions contributed to the Rice Ridge Fire that burned over 150,000 acres in 2017) and this decision begins addressing the backlog of vegetation management needs in the immediate areas around private property and other resource values (e.g., old growth habitat, riparian habitat, hiding cover) at risk.

I also make this decision in consideration of the increasing effects from a changing climate. Some would advocate for less action on this landscape given the uncertainties of future effects of climate change; however, I believe less active management to be irresponsible given the existing and expected future conditions for this landscape. Every year we see increased fire activity nationwide, and numerous scientific sources recommend taking an active role in guiding landscape change and improve the resilience of forests to disturbance from fire, drought, insects and disease. Species such as Canada lynx, bull trout and whitebark pine face unprecedented risk from climate change, exotic pathogens and all the associated ecological impacts, and failure to act will most likely result in their continued decline. A warming and drier climate, combined with the legacy effects of fire suppression, requires active vegetation management, and the scientific knowledge applied to this decision has been shown to be an effective prescription to mitigate these risks (Hagmann et al. 2021, Hessburg et al. 2021, Prichard et al. 2021).

More specifically, the Mid-Swan proposed actions will result in improving grizzly bear security in 4 of the 6 subunits impacted by this decision, with no change in the remaining 2 subunits. Improvements include reductions in total motorized route density and increases in secure core through more efficient transportation planning and the closure/decommissioning of numerous legacy roads. In Canada Lynx habitat, this decision includes 3,349 acres of vegetation management in stand initiation habitat and 9,313 acres of vegetation management in multistory habitat. These actions will create a more diverse habitat mosaic, using variable density thinning and creating forest openings, in areas where previous logging and fire suppression have resulted in homogenous conditions. Following the authorized treatments, the amount of high-quality foraging habitat, the edge between multistory and stand initiation habitat, will initially drop from 6.1 to 5.75 m/ha, however as post-treatment openings recover and transition from early seral to stand initiation conditions, the availability of this resource for lynx will ultimately increase to 6.8

m/ha across the project area. Multistory habitat connectivity, a critical aspect of lynx habitat quality and currently averaging 0.58 across the 12 impacted Lynx Analysis Units within the project area, will be reduced to an average of 0.57 following the activities authorized in this decision, remaining above the 0.5 threshold recommended by researchers. These impacts will be dispersed in space and time according to the implementation schedule and will be balanced with the reduced risk of large-scale habitat loss due to high severity fire.

This decision would implement extensive road improvements, storage, and decommissioning resulting in a significant reduction of the sediments that could be eroded into adjacent waterbodies. The conservation of aquatic biodiversity, a primary purpose of this project, would be positively affected by reducing human-caused inputs of fine-grained sediment into the aquatic ecosystem. It is expected that this would result in higher quality fish habitat, increased survival rate of native fish, and an increase in the native fish population size over time.

Following the guiding principles of the range-wide whitebark pine restoration strategy (Keane et al. 2012), authorized activities include the planting or direct seeding of rust resistant whitebark pines on 6,495 acres. This would result in the establishment of up to seven viable populations that provide connectivity and are distributed over the Mission Mountains and the Swan Range. This decision also authorizes restoration treatments on 483 acres of existing whitebark pine stands to decrease crown fire hazards, improve growing conditions, and increase the whitebark pine component by interplanting or direct seeding with rust resistant materials.

It's important to me that this decision reflects the consideration of the comments and concerns that were submitted during the comment period on the DEIS. Based upon detailed consideration of the individual comments, I worked with the interdisciplinary team to reduce the number of miles of new roads needed to access vegetation treatment needs in both action alternatives, as well as reduce the area proposed for vegetation management (both prescribed fire and commercial and non-commercial harvest and/or thinning) in both action alternatives. The FEIS and DROD were also refined to better display an implementation schedule that allows for more specific estimates of effects to aquatic and terrestrial habitats, especially bull trout and grizzly bear habitat. With the refinement of where and when activities are expected to occur, it also necessitated a refinement to the implementation guide that will guide on the ground activities as well as refinements to the public engagement process after this decision.

Alternatives Considered

Federal agencies are required to rigorously explore and objectively evaluate reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the proposed action provided suggestions for alternative methods for achieving the purpose and need. Some of these alternatives were outside the scope of this effort or duplicative of the alternatives considered in detail. Over 30 alternatives (or alternative variations) were considered but dismissed from detailed consideration for reasons summarized in chapter 2 of the final EIS.

In addition to the alternative I selected, I considered the no-action alternative and one other alternative which are discussed below. A more detailed comparison of these alternatives can be found in the final EIS in chapter 2. Refer to FEIS section 2.7 for a discussion of alternatives considered but eliminated from detailed study.

All alternatives in this document adhere to the principles of multiple use and the sustained yield of goods and services.

Exhibit 3

Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Northern Region/Flathead National Forest September 2021

Mid-Swan Landscape Restoration and Wildland Urban Interface Project

Final Environmental Impact Statement






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Mid-Swan Landscape Restoration and Wildland Urban Interface Project

Final Environmental Impact Statement

Lake and Missoula Counties, Montana

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Abstract: The Forest Service has prepared this final environmental impact statement to evaluate and disclose the predicted environmental effects of the Mid-Swan Landscape Restoration and Wildland Urban Interface Project. Through this project, the Forest Service is proposing to: decommission, store and improve existing Forest Service roads; construct permanent and temporary Forest Service roads; remove existing fish barriers; enhance suitable beaver habitat; treat vegetation; use prescribed fire; restore whitebark pine and western white pine; and amend the Forest Plan through project level Forest Plan amendments. The final environmental impact statement includes three alternatives. The no-action alternative does not include any proposed actions associated with this project, alternative B includes the most amounts of activities, and alternative C includes lesser amounts of actions than alternative B. All actions are proposed to be implemented on the Swan Lake Ranger District of the Flathead National Forest. The Forest Service is proposing these actions to restore and maintain terrestrial and aquatic biodiversity, improve the resilience of forest ecosystems, and reduce fire behavior in the wildland-urban interface and in areas that have influence on fire behavior within the wildland-urban interface.

Executive Summary

We (the USDA Forest Service) are proposing multiple actions in the Mid-Swan Landscape Restoration and Wildland Urban Interface Project (Mid-Swan). This project area includes 174,205 acres of National Forest Service Lands on the Swan Lake District of the Flathead National Forest and is adjacent to the communities of Condon and Swan Lake, MT, and many rural residents of the valley.

This project is guided by the 2018 Flathead National Forest Land Management Plan (the Forest Plan), and assessments of the ecological conditions in the Mid-Swan landscape. These assessments indicate multiple terrestrial, aquatic, and road conditions are not meeting Forest Plan desired conditions and require action to move them towards the vision of the Forest Plan.

The purpose of the Mid-Swan Project is to restore and maintain terrestrial and aquatic biodiversity in light of a changing climate, and to reduce fire behavior in the Wildland Urban Interface (WUI) and in areas that have influence on fire behavior within the WUI. We are proposing numerous activities across two alternatives to address these departures. Full implementation of these actions would take approximately 15 years and would include public involvement opportunities. Implementation is expected to begin in 2023 after the deciding official (the Flathead National Forest Supervisor) selects an alternative and signs the NEPA record of decision.

Purpose and need. Many natural and human-caused factors have influenced the current conditions found in the project area today. Decades of fire suppression, road development, timber management practices, non-native species introduction, and climate change have influenced the patterns and processes not just in the project area, but across the broader landscape. This project acknowledges these disturbances and seeks to protect and maintain ecosystem services and values-at-risk by identifying ecological needs.

To identify and quantify these ecological needs, a combination of high-resolution 3-dimensional aerial photo interpretation, ecological departure analyses, historical documentation, and other modeling and research was utilized. Photo interpretation was used to compare current conditions to reference conditions derived from the earliest available imagery (ranging from 1930s to1960s), and to derive what is referred to as “ecological pattern departures” (Hessburg et al. 1999c). Three terrestrial needs and two aquatic needs were identified through this assessment and are categorized as follows.

Terrestrial

1. Protect, enhance, and restore large trees, old forest structure, lynx habitat, western white pine and whitebark pine;
2. Convert and connect forest patches to correct departures from reference conditions in forest structure and cover type, patch density, and large patches;
3. Reintroduce fire and prepare the landscape for fire, particularly where there is fire deficit, where potential fire behavior threatens values in the WUI, and where reintroducing fire would increase the riparian disturbance mosaic.

Aquatic

1. Maintain and improve instream habitat condition and water quality; and,
2. Maintain and improve Riparian Management Zone (RMZ) function and condition.

We took these ecological needs and developed treatment units through a process that determined the "level-of-change" needed to move towards desired conditions. This process is explained in detail in section 1.5.

Proposed treatment activities, spatially defined treatment units and associated treatment objectives as expressed by the level-of-change are summarized in tables and depicted in maps in Appendix B of the FEIS.

Public involvement/issues/alternative development. The notice of intent to file an environmental impact statement (EIS) appeared in the *Federal Register* on October 23, 2018 and solicited comments during a 30-day period. Subsequently, the comment period was extended for another 30 days with a due date of December 24, 2018. On November 8, 2018, a public meeting was held in Condon and attended by approximately 40 individuals. Following the open house, Swan Valley Connections, a local non-governmental organization, hosted a field trip on November 16 that was attended by approximately 50 people.

We received 73 letters during scoping from a wide variety of individuals. These included residents of the Swan Valley and adjacent areas, organizations, local governments, collaborative groups, and State agencies. We hosted two more public field trips and an open house.

Comments received during scoping helped us identify issues, develop alternatives, design criteria, and analyze effects. Ultimately, we identified ten topical issues to address in the FEIS, which include Canada lynx habitat, roads and grizzly bear, road construction, aquatic habitat, riparian management zones, eligible wild and scenic river corridors, water howellia, treatments in designated wilderness, old growth, and wildland fire and fuels treatments.

We received 111 comment letters within the formal comment period on the DEIS that ended on October 13, 2020. See Appendix C for a detailed description of the process used to analyze comments as well as the detailed response to comments.

Alternatives and implementation guide. In addition to the no-action alternative (alternative A), we modified the proposed action that was presented during scoping (alternative B), and created another alternative (alternative C), which responds to the issues brought forward during scoping. The deciding official has selected Alternative B as the preferred alternative.

We also created an "Implementation Guide on Restoration," or, "IGOR," in short. This document, located in appendix A of the FEIS, guides implementation of alternatives B and C and details the design criteria, best management practices, and thresholds to mitigate effects of the proposed actions. In addition, it includes decision guides, checklists, and other processes the implementation team would use post-decision to guide implementation. A section on public involvement is also included, which describes how to stay involved and contribute ideas to assist in implementing actions and evaluating monitoring information.

Alternative A: no action. The National Environmental Policy Act requires the study of the no-action alternative and to use it as a basis for comparing the effects of the proposed action and other alternatives. Under alternative A, no restoration activities or fuels treatments described in alternatives B or C would be implemented to accomplish project goals and objectives. Natural disturbances and current management of the project area would continue; ongoing activities such as recreation, firewood gathering, road and trail maintenance, invasive plant treatments, and other routine forest management activities not associated with this decision would continue, as authorized, by previous decisions.

Features common to both action alternatives. Alternatives B and C (the action alternatives) would include implementation of various vegetation and road treatments to address the ecological needs identified in the project area. Integrated objectives, desired conditions, and the level-of-change developed in the assessment would stay the same for each treatment unit.

Vegetation treatment methods would include various combinations of commercial, non-commercial, mechanized, non-mechanized, hand treatments, and prescribed fire. Treatment prescriptions would include even-aged regeneration, variable density thinning, hand treatments, prescribed fire, and direct seeding or planting. These treatment methods and prescriptions vary across both action alternatives and are summarized under their respective alternative. The following paragraphs (headings in italics) briefly summarize features common to both action alternatives.

IRAs and recommended wilderness areas. No commercial timber harvest is proposed in either action alternative for inventoried roadless areas or recommended wilderness areas. Inventoried roadless areas could receive non-commercial mechanized treatments, but recommended wilderness would not. Both alternatives propose whitebark pine and western white pine restoration in recommended wilderness through hand thinning, prescribed fire, planting, or direct seeding. A project-specific amendment is proposed under both action alternatives to allow the motorized use (chainsaws) and transport (helicopter landings for prescribed fire operations, and sling loading of seedlings) in recommended wilderness areas to facilitate the hand thinning, prescribed fire, direct seeding, and planting in recommended wilderness areas.

Prescribed fire in upland areas. Both action alternatives propose using prescribed fire as a restoration tool to achieve desired conditions while acknowledging wildfire will continue to play its natural role across the project area. To limit the amount of fire to desired effects, thresholds have been established in upland areas and riparian management zones. Prescribed fire in riparian management zones varies by alternative, but prescribed fire in upland areas (all National Forest System lands outside a designated riparian management zone) would be limited to the threshold detailed in appendix A. These thresholds allow for the reintroduction of fire and make up for 85 years of fire deficit, while recognizing that not all acres within the project area would be affected by fire during the same period. Fires started from natural ignitions would count towards these thresholds.

Aquatic habitat restoration. Multiple actions to restore aquatic habitat are proposed across both action alternatives and are summarized in Table 1, below. These actions mainly address the project area's 576-mile-long road system. Proposed actions include stormproofing 243.6 miles of existing roads, of which, 44.9 would be decommissioned; rehabilitating 283 road-stream crossings (culvert removal, re-sloping, water bars, etc.); restoring beaver habitat on up to 1,280 acres (artificial habitat construction, tree and shrub planting, etc.); and removing four known native-fish barriers.

Table 1. Summary of proposed aquatic habitat restoration actions for both action alternatives

Proposed Aquatic Habitat Restoration Action	Alternatives B and C
Stormproof existing roads	246.5 mi.
Store[1]	*177.1 mi.*
Store and make impassable[1]	*11.1 mi.*
Close with gate[1]	*13.4 mi.*
Decommission[1]	*44.9 mi.*
Rehabilitate road-stream crossings (culvert removal, re-sloping, water bars, etc.)	283 crossings

Proposed Aquatic Habitat Restoration Action	Alternatives B and C
Beaver habitat restoration (artificial habitat, tree and shrub planting, etc.)	1,280 acres
Remove native fish passage barriers	4

[1]See Table 31 for more detail on how these actions are proposed to be applied to various existing road management conditions.

All road actions are proposed for roads currently closed to public motorized access. There would be no gain or loss of existing open public motorized access in either action alternative.

If selected, either action alternative is expected to take up to 15 years to fully implement. Opportunities for public involvement would continue into implementation as described in appendix A. Implementation of vegetation and road management actions could include the use of commercial timber sales, stewardship contracts, service contracts, partnership agreements, and Good Neighbor Authority agreements.

Alternative B. This alternative includes a suite of terrestrial and aquatic vegetation treatments designed to address the ecological needs of the project area. A total of 97,855 acres are proposed for vegetation treatment. Commercial harvest would include 37,792 acres of this total, non-commercial mechanized treatment includes 10,643 acres, and the remaining 49,420 acres include non-mechanized treatments. Most of the 97,855 acres are scheduled to receive prescribed fire on the harvest-related activity fuels and/or natural fuels present in the area delineated for treatment. Table 2 summarizes these actions and further categorizes each treatment type by specific prescriptions.

Table 2. Summary of proposed vegetation treatments for alternative B

Proposed vegetation restoration action	Acres
Total potential treatment areas (within the 174,205-acre project area)	**97,855**
Commercial mechanized harvest with activity fuel treatments	37,792
Even-aged regeneration / Regeneration openings	*5,859*
Regeneration openings / Variable density thinning	*27,271*
Variable density thinning	*4,662*
Other mechanized treatments with activity fuel treatments	10,643
Mechanized treatments with non-commercial components	*1,697*
Mechanized fuel treatments	*3,635*
Mechanized young stand thinning	*5,310*
Non-mechanized treatments with non-activity fuel treatments	49,420
Hand treatments (outside designated or recommended wilderness)	*31,474*
Treatments in recommended wilderness	*7,788*
Treatments in designated wilderness	*10,159*

WUI. Treatments are proposed in individual treatment units across the project area and overlay many Forest Plan management areas. 60,136 acres are proposed outside the WUI, while the remaining 37,719 acres are within. Seventy percent (41,713 acres) of vegetation proposed actions outside the WUI consist of non-mechanized hand treatments, prescribed fire, and direct seeding or planting. 65 percent (24,614 acres) of the actions inside the WUI would be commercial mechanized harvest.

Fire in RMZs. This alternative reintroduces fire across the landscape and proposes prescribed fire into areas along waterbodies called riparian management zones (RMZs). RMZs include an inner and outer

portion. Fire would be allowed to burn into these areas to mimic natural disturbance processes and create a mosaic of burned and unburned vegetation. To mitigate effects, a threshold (see appendix A) would limit the extent of prescribed fire across individual watersheds and accounts for natural ignitions.

New road construction and decommissioning. To implement proposed vegetation actions, we would need to use the existing road network and construct new permanent and temporary roads. Permanent road construction could occur on 31.9 miles and temporary roads on another 9.4 miles. Seventy-eight percent of these permanent roads would be stored after use, the remaining would be closed with a gate. 44.9 miles of existing national forest system roads would be decommissioned.

Canada lynx. This alternative includes a project-specific amendment to Forest Plan direction for management of Canada lynx habitat. Lynx habitat improvement would apply new science to increase availability and improve configuration across multiple watersheds and reduce the risk of large-scale habitat loss due to fire or other climate-related disturbances. The amendment takes a proactive, landscape-scale approach by increasing forest management in lynx habitat outside the wildland-urban interface, providing additional foraging and denning opportunities for lynx, and creating a landscape pattern more resilient to large-scale disturbances (such as wildfire), and more capable of sustaining lynx habitat quality into the future. In total, 18,751 acres of habitat outside the wildland-urban interface would be treated under alternative B (14,763 acres mature multistory and 3,988 acres stand initiation).

Old growth. Alternative B proposes to reduce the loss of old growth to stand replacing wildfires by decreasing tree density, reducing understory fuels, and burning with prescribed fire. Old-growth forest, as defined by Green et al. (2011) is a changing resource. As new old growth is recruited through time, natural disturbance processes move stands out of old-growth status. As a result, there is no fixed map of old growth available for the project area and site-specific surveys are necessary. The process for identifying old growth prior to implementation, and the design criteria, which clearly define what treatments are allowed, are included in appendix A.

Eligible wild and scenic river corridors. Commercial, mechanized, and hand treatments are proposed on 2,670 acres in eligible WSR corridors. To implement these actions, less than one mile of new roads would need to be constructed.

Designated wilderness. 1,987 acres are proposed to restore whitebark pine in the Mission Mountains Wilderness through direct seeding. In total, 8,638 acres of prescribed fire within the Mission Mountains Wilderness is proposed to address unnatural fuel conditions related to highly departed vegetation conditions.

Recommended wilderness area. Alternative B proposes 7,788 acres of hand treatments (includes hand thinning, pruning, girdling, hand piling and burning, prescribed fire, tree planting and direct seeding) in recommended wilderness. There are two recommended wilderness areas in the project area and a project-specific Forest Plan amendment is proposed to allow the use of helicopter landings for prescribed burning operations, chain saw use, and sling loads for bringing in planting supplies. The 2018 Forest Plan includes suitability language for recommended wilderness areas. The recommended wilderness areas are not suitable for mechanized or motorized use. Helicopter landings, chain saw use and sling loads (which is considered a motorized landing) would be allowed during the implementation of this project under this project-level Forest Plan amendment.

Water howellia. Under alternative B, vegetation treatments in areas surrounding the 300-foot howellia management zones (1,392 acres) could be extended into the buffer where vegetation is characterized by upland conditions. This could include prescribed fire and small regeneration openings and thinning treatments to reduce the risk of crown fire and promote fire-resilient species in the vegetation buffer.

Inventories roadless areas. Alternative B proposes mechanized non-commercial, non-mechanized, and prescribed fire-based treatments on 12,162 acres of inventoried roadless areas. While no temporary or permanent road construction would occur, heavy equipment (for example, excavators and masticators) could be operated in some of the areas (1,743 acres) within the boundaries of inventoried roadless areas to attain resource objectives.

Alternative C retains the same large-scale objectives as alternative B: mitigating fuel within the WUI, moving the forest pattern toward more resilient conditions, protecting native biodiversity, and reducing risks to aquatic biodiversity through improved road management and other practices, but to a lesser extent that alternative B.

This alternative responds to multiple concerns expressed during scoping and other public involvement. It reduces the extent of vegetation treatments and new road construction in and out of the wildland-urban interface. This alternative reduces the number of acres proposed for treatment because of building fewer roads and relies mainly on the existing NFS-road network. A total of 48,434 acres are proposed for vegetation treatment (28 percent of the area proposed for treatment in alternative B). Commercial harvest would include 20,124 acres of this total, non-commercial mechanized includes 6,722 acres, and the remaining 21,587 acres include non-mechanized treatments. Most areas would receive prescribed fire on activity and/or natural fuels. Table 3, below, summarizes these actions, and further categorizes each treatment type by specific prescriptions.

Table 3. Summary of proposed vegetation treatments for alternative C

Proposed vegetation restoration action	Acres
Total potential treatment areas (within the 174,205-acre project area)	**48,434**
Commercial mechanized harvest with activity fuel treatments	20,124
Even-aged regeneration / Regeneration openings	*2,885*
Regeneration openings / Variable density thinning	*13,976*
Variable density thinning	*3,263*
Other mechanized treatments with activity fuel treatments	6,722
Mechanized treatments with non-commercial components	*700*
Mechanized fuel treatments	*2,849*
Mechanized young stand thinning	*3,173*
Non-mechanized treatments with non-activity fuel treatments	21,587
Hand treatments (outside designated or recommended wilderness)	*15,787*
Treatments in recommended wilderness	*5,800*
Treatments in designated wilderness	*0*

The following describes how proposed actions in alternative C differ from those proposed in alternative B.

- No management actions are proposed in designated wilderness areas.
- No treatment activities are proposed in lynx mature multistory or stand initiation habitat outside WUI; therefore, no project-specific plan amendment would be required. In addition, any suitable lynx habitat identified during pre-project surveys would be excluded from treatment.
- No management actions would occur in old-forest structure and in old-growth forest.
- Hand treatments and prescribed fire would be the only treatments in eligible wild and scenic river corridors.

- Most proposed activities are excluded from occurring in riparian management zones. Exceptions include road improvements, new road construction, and beaver restoration activities. All activities would be excluded from the riparian management zones around water howellia habitat.
- 7.0 miles of new roads designed to create a more efficient road network would be constructed.
- Alternative C still proposes hand treatments in recommended wilderness, but to a lesser extent (5,800 acres).

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2.5 Alternatives B and C

This section describes alternatives B and C (the action alternatives). Proposed actions for the action alternatives are broadly categorized as terrestrial restoration and WUI protection actions and aquatic habitat restoration actions. Variations in actions between action alternatives are explained where applicable.

If selected, either alternative would be expected to initiate in 2023 after the decision is signed and is expected to take 15 years to implement. Opportunities for public involvement would continue in implementation as outlined appendix A. Implementation of vegetation and road management actions could include the use of commercial timber sales, stewardship contracts, service contracts, partnership agreements, and Good Neighbor Authority agreements.

Alternative development was informed by comments from the public and the ecological needs identified in the planning team's assessment. This chapter describes the range of alternatives and how management activities would be implemented considering current, on-the-ground resource settings and decision-making triggers during implementation. Activities could be implemented up to the amount authorized in the record of decision but could be less depending on actual on-the-ground conditions at the time of implementation.

Alternative B is the preferred alternative and proposes actions to restore aquatic and terrestrial habitats and WUI protection measures. Proposed actions presented in this alternative reflect treatment levels needed to move towards desired conditions in treatment units, while maintaining flexibility during implementation to adjust to conditions as found.

The action alternatives were created with no funding constraints and reflect the ecological and social needs to move the landscape towards desired conditions. Implementation of restoration actions, under either action alternative, would be subject to available funding at the time of implementation and do not guarantee full deployment of proposed activities unless specified as necessary mitigation or design criteria. Activities could be funded from a variety of sources including stewardship contracting, Federal grants, and timber receipts.

Integrated objectives, desired conditions, and level-of-change (LOC) allocations, as described in section 1.5, will remain constant across all action alternatives. While not an action, these components link the need for action to the proposed actions in both action alternatives. To better assess landscape needs, LOCs were developed for the entire project area, including those areas (e.g., designated wilderness, non-NFS land) that may not have a proposed action associated with it.

Vegetation management activities intended to accomplish these objectives are proposed in site-specific treatment units where a desired condition and a LOC have been identified. Appendix B contains proposed vegetation treatment maps, by alternative and implementation unit.

2.5.1 Terrestrial Vegetation and WUI Protection Actions

Vegetation management activities are proposed in treatment units that combine the overlying management emphasis group and restoration need and address the departure between existing and desired conditions. The range of treatment activities and tools capable of moving towards desired conditions are described in Table 10 and Table 11, in section 1.5. The proposed vegetation treatments under alternative B and alternative C are shown in Appendix B of the FEIS.

Vegetation Treatment Connected Actions

New road construction. To fully implement the vegetation and WUI protection actions described above, we would need to use the existing National Forest Stem road network and build 31.9 miles of new permanent roads and 9.4 miles of temporary roads for alternative B (Table 29). These numbers include 7 miles of permanent new road intentionally designed to create a more efficient transportation system (gated and connected loops with fewer spur roads), reduce long-term road maintenance, allow for the decommissioning of existing roads in RMZs, or to allow the elimination of existing stream crossings. Alternative C only proposes to build these 7.0 miles of new permanent road.

Table 29. New road construction, by alternative

Proposed Action	Alternative A: No action	Alternative B	Alternative C
Permanent road construction (miles)	0	31.9	7.0
Temporary road construction (miles)	0	9.4	0

To identify potential new road locations for alternative B, the planning team mapped new segments where allowed under the Forest Plan management area direction to provide mechanized equipment access to potential treatment units.

Care was taken when determining the proposed location of these roads to minimize new stream crossings (16 new stream crossings proposed in alternative B, 3 in alternative C) or new roads within RMZs. The new roads avoided areas that are likely old growth, or in areas where no proposed vegetation treatments were identified for this project. None of these new roads are proposed within the inventoried roadless areas. New roads are proposed within eligible wild and scenic river corridors where access is necessary to implement the proposed commercial mechanized treatment actions.

The location of new roads avoided crossing streams where possible, but there were instances where topography limited the options, requiring a stream crossing. These roads add 22 (16 on permanent roads, 6 on temporary) new stream crossings, affecting about 4.1 acres of RMZ.

Existing historical road templates were used where possible to minimize new road disturbance. Most of this new construction (81 percent) would occur over previously undisturbed forest soils, but 10 percent could be built over a previously decommissioned road, and 9 percent built over previously disturbed forest (typically over old logging skid trails).

About 23 miles (78 percent) of the newly constructed permanent roads would be stored after use (hydrologically disconnected and closed to access with a constructed earthen berm), and 2.6 miles (22 percent) would be closed with a gate and maintained for administrative access. Earthen berms and legal closures do not always prevent illegal access or activities, however recent surveys on the Flathead National Forest have documented 95 percent effectiveness (project file exhibit H-010).

Temporary roads would be for administrative use only and would be closed to the public during their use with the Mid-Swan project. Over the 15-year project authorization period, temporary roads would be reclaimed within five years of individual project completion to preclude future motorized use and to restore ecological function in the affected area. Soil function would be restored (FW-STD-SOIL-03). Methods for reclaiming temporary roads are described in appendix A (design criteria INF01). Appendix B: Maps, contain figures showing proposed locations of temporary roads, by implementation unit.

Use of existing NFS roads. To access treatment areas, both alternatives include using existing open and closed National Forest System roads, including the reconstruction/improvement of existing open and closed roads. Reconstruction of existing roads may include road blading, ditch clearing, brush clearing, road relocation, culvert installation or replacement, and gravel surfacing. Use of closed NFS roads would be for administrative access and project implementation only. Use of closed NFS roads for project implementation will be guided by the Mid-Swan implementation schedule to ensure compliance with Forest Plan guidance. Following the completion of any management actions requiring the temporary use of closed roads, roads will be returned to a fully closed status, with the method of closure as defined by the Mid-Swan transportation analysis process.

2.5.2 Aquatic Habitat Restoration Actions

Sediment contribution to aquatic habitat can be attributed to poorly sited or maintained roads. We propose to reduce the negative impacts of roads on the aquatic ecosystem through road stormproofing, rehabilitation, and construction.

Proposed actions were developed though a transportation analysis for all existing and proposed NFS roads in the project area and considers the 2014 forest-wide travel analysis (U.S. Department of Agriculture 2014a). Each road segment was assessed for risks to aquatic and wildlife values and compared to the benefits of the segment (e.g., management, fire, and recreational access). The results of the assessment informed proposals for specific road treatments and construction. The transportation analysis is in project record exhibits R001-R010.

Both alternatives propose no change to public motorized access; Forest Service roads currently accessible by the public would remain accessible.

Aquatic habitat restoration actions are broadly categorized into four actions: road stormproofing, road rehabilitation, beaver habitat restoration, and fish passage barrier removal. These actions are summarized in Table 31, below. Table 31 displays detailed proposed changes to existing NFS roads.

All proposed aquatic habitat restoration actions described in this section are common to both action alternatives.

Table 30. Aquatic Habitat: comparison of proposed actions, alternatives B and C.

Proposed Aquatic Habitat Restoration Action	Alternatives B and C
Stormproof existing roads	246.5 mi.
Store[1]	*177.1 mi.*
Store and make impassable[1]	*11.1 mi.*
Close with gate[1]	*13.4 mi.*
Decommission[1]	*44.9 mi.*
Rehabilitate road-stream crossings (culvert removal, re-sloping, water bars, etc.)	283 crossings
Beaver habitat restoration (artificial habitat, tree and shrub planting, etc.)	1,280 acres
Remove native fish passage barriers	4

[1]See Table 31 for more detail on how these actions are proposed to be applied to various existing road management conditions.

Road Stormproofing

This project proposes the "stormproofing" (decommission, store, or improve) of 246.5 miles of existing roads to improve hydrologic function and streamline transportation efficiency as shown in the following table. Additionally, roads within the project area needed for implementation would be improved to best management practice standards before use.

Road Construction

Both alternative B and C propose to build 7.0 miles of new permanent road, intentionally designed to create a more efficient transportation system (gated and connected loops with fewer spur roads), reduce long-term road maintenance, allow for the decommissioning of existing roads in RMZs, or to allow the elimination of existing stream crossings.

These 7.0 miles of new roads are included in the new road proposals for vegetation management in Table 29 (see vegetation treatment connected actions).

All this new construction would occur over previously undisturbed forest soils, except for one 250-foot road section.

About 2.5 miles (36 percent) of the newly constructed permanent roads would be stored after use (hydrologically disconnected and closed to access with a constructed earthen berm), and 4.5 miles (64 percent) would be closed with a gate and maintained for administrative access.

Road Rehabilitation

Both action alternatives would result in the rehabilitation of existing road-stream crossings for up to 283 of the approximately 732 existing crossings. Rehabilitation includes disconnecting the road from the aquatic network through culvert removal and road approach re-sloping, construction of water bars, etc. These actions would take place on roads that are stored or decommissioned. Specific rehabilitation methods would be determined during project implementation as described in appendix A.

Table 31. Travel management actions on existing National Forest System roads for alternatives B and C. See Glossary for road-related definitions

Category	ALT A is Existing Condition with No Changes Existing miles of forest service road system, by category		Proposed changes to existing Forest Service roads (alternatives B and C make the same changes)					Condition of existing NFS road system after implementation (does not include new proposed roads)
			Change A: leave as is	Change B: store	Change C: store (Impassable)	Change D: close with gate	Change E: decommission (completely remove)	
A	Open to the Public, drivable	111.8	111.8	0	0	0	0	111.8
B	Seasonally Open to the Public	22.5	22.5	0	0	0	0	22.5
C	Closed with a berm or other	133.2	0	100.0	4.6	11.3	17.2	0
D	Closed with a gate	239.5	160.5	55.1	5.1	0	18.7	173.9
E	Closed and Impassable	22.6	0	14.6	1.4	1.1	5.5	0
F	Stored	34.3	24	6.5 [1]	0	1.0	2.8	201.1
G	Stored (Impassable)	8.7	7.1	0.9	0	0	0.7	18.2
	Total	**572.6**	**325.9**	**177.1**	**11.1**	**13.4**	**44.9**	**527.5**

Note: This set of roads reviewed in the TAP are not entirely within the Mid-Swan planning boundary, adjacent road segments that intersect the planning area are included.

Category A and B roads would not have a status change; they would stay in their existing open or open seasonally status.

Category C, Change B (stored) would be surveyed, then hydrologically disconnected as needed (culverts and fill removed, water-barred) and berm reconstructed at entrance.

Category C, Change C (stored impassable) are treated as above, but entrance and the first 50-300 feet of the road are more intensely blocked using various methods including scarifying/obliterating the road surface or placing down trees/boulders across the road or removing a large culvert or bridge.

Category C, Change D, (gated) berm would be replaced with an administrative use only gate, and road maintained into the future.

Category C, Change E. (decommission) These road segments would be decommissioned, removed from the NFS road network, and returned to forest production.

Category D, Change B. These currently gated roads would be stored, hydrologically disconnected, gate removed, and entrance bermed.

Category D, Change C. Same as above, except the entrance and the first 50-300 feet of the road are more intensely blocked using various methods including scarifying/obliterating the road surface or placing down trees/boulders across the road or removing a large culvert or bridge.

Category D, Change E. Currently gated road would be decommissioned, removed from the NFS road network, and returned to forest production.

Category F, Change D. Minor stored/closed road segments would be changed to a gated road, used to create a connected system for ease of maintenance, and administrative access.

Category F, Change E. These stored roads would be decommissioned, removed from the NFS road network, and returned to forest production.

Note that many of the proposed changed roads would be utilized for log haul for the project prior to moving it to the new category. These haul roads would be maintained as needed to meet BMPs. Open, seasonally open, and gated roads would also be maintained.

[1]Changes to the roads in this category reflect differences in the NCDE grizzly bear closure type, but do not impact aquatic concerns.

Exhibit 4

From: **Keith Hammer** keith@swanview.org
Subject: Alt B new road miles
Date: September 4, 2020 at 2:09 PM
To: Joe Krueger joseph.krueger@usda.gov

KH

Joe;

The Mid-Swan DEIS, at xiv, states of Alt. B:

"Permanent road construction could occur on 38.7 miles (note: this does not include the 7.5 miles of new road construction proposed above) and temporary roads on another 10.6 miles. Seventy-seven percent of these permanent roads would be stored after use, the remaining would be close with a gate." (parenthesis in original)

1. Elsewhere in the DEIS and on Slide 34 of the Sept. 2 presentation appear to include the 7.5 miles proposed to rectify road/aquatic problems in the 38.7 miles. Which is it; are those 7.5 miles included or excluded from the Alt. B total of 38.7 miles?

2. If 23% of the new roads are only gated, does this not increase TMRD and does that not violate Forest Plan standards to maintain the 2011 Baseline?

3. Don't the 77% of new roads to be Stored need to also be rendered Impassable to not increase TMRD?

Thanks,

Keith

Keith Hammer - Chair
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http://www.facebook.com/SwanViewCoalition
http://www.youtube.com/user/swanviewcoalition

"Nature and human nature on the same path."

From: **Krueger, Joseph -FS** joseph.krueger@usda.gov
Subject: email questions from 9/4 re: Alt B road miles
Date: September 9, 2020 at 2:54 PM
To: Keith Hammer keith@swanview.org
Cc: Helser, Micah - FS micah.helser@usda.gov, Draggoo, Michele -FS michele.draggoo@usda.gov, Steele, Kurt -FS kurt.steele@usda.gov

JK

Keith, my responses are in red italicized text.

The Mid-Swan DEIS, at xiv, states of Alt. B:

"Permanent road construction could occur on 38.7 miles (note: this does not include the 7.5 miles of new road construction proposed above) and temporary roads on another 10.6 miles. Seventy-seven percent of these permanent roads would be stored after use, the remaining would be close with a gate." (parenthesis in original)

1. Elsewhere in the DEIS and on Slide 34 of the Sept. 2 presentation appear to include the 7.5 miles proposed to rectify road/aquatic problems in the 38.7 miles. Which is it; are those 7.5 miles included or excluded from the Alt. B total of 38.7 miles? *That statement in the executive summary at xiv is erroneous. It either should have the note in parenthesis deleted, or the 38.7 number adjusted to the correct number which is 31.1. The data presented in Chapter 2 is correct, and is the data we used for our effects analysis in Chapter 3. DEIS Table 28 shows the correct number (31.1) with the 7.5 miles deducted.*

2. If 23% of the new roads are only gated, does this not increase TMRD and does that not violate Forest Plan standards to maintain the 2011 Baseline? *You need to also account for the substantial changes we're proposing in the existing road system. We are accounting for any new road impacts by storing existing roads in ways that offset impacts. E.g. gated to impassable, decommissioning, and gated to stored.*

3. Don't the 77% of new roads to be Stored need to also be rendered Impassable to not increase TMRD? *TRMD is calculated as the percent of the subunit where the road density within that moving window exceeds 2 miles/square mile. So if we're placing a road in an area that already exceeds that, it may not affect TMRD. If we're placing a road in an area that has <2 miles/sq mile road density, but the new road does not push it over that threshold, it does not affect TMRD. New roads will only affect TMRD if they cause an area to go from below 2 miles/sq mile to above 2 miles/sq mile. Wherever we have that situation, and it can't be mitigated somehow by closing another road segment, we're proposing actions at the road entrance after treatment so it doesn't count against TMRD.*

Joe Krueger
Team Leader
Forest Service, Northern Region Landscape Planning Team
USDA Forest Service
Northern Region
c: 406-270-1538
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650 Wolfpack Way
Kalispell, MT 59901
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Caring for the land and serving people

Exhibit 5

Final Decision Notice
and
Finding of No Significant Impact
for the
Bug Creek Integrated Resource Management Project

USDA Forest Service
Swan Lake Ranger District
Flathead National Forest
Lake County, Montana

Introduction

Bug Creek Integrated Resource Management Project area is approximately 35,675 acres and lies on the east and west sides of Crane Mountain, between Flathead Lake and Swan Lake. This project area is within Lake County and is located roughly two miles southeast of Bigfork, Montana, east of Flathead Lake, west of Highway 83, and northwest of Swan River State Forest.

The purpose of the Bug Creek Integrated Resource Management Project (hereafter referred to as *Bug Creek* or *project*) is to move the project area towards the desired conditions defined by the 2018 Flathead National Forest Land Management Plan (Forest Plan). The difference between the existing condition and the desired condition creates a need for management action on the ground. The purposes for the Bug Creek Project are identified below, which compel the need for action.

- Reduce fire behavior near communities within the wildland-urban interface to facilitate safer, more effective wildland fire operations.
- Improve the diversity and resilience of forest vegetative communities and associated wildlife habitat.
- Provide quality outdoor recreation opportunities.

The final environmental assessment (July 2022) documents the analysis of two action (Alternatives B and C) and one no-action (Alternative A) alternatives to meet this need. This final decision notice identifies the activities I selected to include in my decision and the rationale for that decision, including the finding of no significant impact that shows that an environmental assessment is the appropriate level of analysis. This document includes my decision, finding of no significant impact, and two appendices.

Appendix A describes the selected alternative and included design features. Appendix B hosts project maps.

Decision and Rationale for the Decision

Based upon my review of the alternatives, I have decided to implement the selected alternative, Alternative B-Proposed Action Modified which includes 4,579 acres of vegetation management, motorized access management, and a non-motorized trail system on National Forest System lands. A summary of the selected alternative may be found in Table 1 and full details of the selected alternative activities may be found in Appendix A of this decision notice.

The 1,898 acres of commercial harvest that my decision authorizes will provide a mix of timber products which contribute to the achievement of vegetative desired conditions (FW-DC-TIMB- 01). This decision is economically viable and will contribute to the economic sustainability of local economies (FW-DC-TIMB-02).

The approximately 13.3 miles of system road construction will provide access for the vegetation, fuels, and resource management activities. The system roads will be designated as Maintenance Level 1 roads and managed as impassable after use. A temporary gate will be installed on National Forest System (NFS) road #498 for approximately five years. The gate will restrict public motorized access and allow fuels reduction treatments to occur while meeting Forest Plan direction. The gate will be removed as soon as commercial treatments are completed.

Provide quality outdoor recreation opportunities.

This decision includes actions for both non-motorized and motorized access. The creation/designation of approximately 17 miles of non-motorized trail systems combined with two new and one upgraded trailheads in the Crane Mountain area (GA-SV-MA7-Crane-DC-01) will provide public opportunities near Bigfork, Ferndale, and the East Shore of Flathead Lake communities. Establishing consistent trail use designation across both state and federal lands by making the Estes Lake trail non-motorized should decrease public confusion.

The barrier on NFS road #9714 will be removed and replaced with a gate to open 3.4 miles to the public seasonally from April 1st to November 30th, providing access between NFS road #9745 and #498 to create loop opportunities for motorized recreationalists. This decision will also maintain an existing designation of around seven miles (mile point 9.2 to mile point 16.2) of NFS road #498 as Seasonally Open (April 1st to November 30th) for motorized public access. I do want to recognize that a previous decision (1996 Crane Mountain Salvage) identified this section of the NFS #498 for closure to the public, decommission, and removal from the system. However, upon further interdisciplinary review through this decision-making process, I decided to leave this area open, or the status quo on the ground, to be in the public's best interest at this time.

This Bug Creek decision supersedes any of the 1996 Crane Mountain access management activities that were not implemented to date. Conditions were considered and analyzed in both the 2011 Baseline Grizzly Bear conditions and the 2014 Flathead National Forest Assessment for the 2018 Revised Forest Plan. Therefore, the 2018 Revised Forest Plan guides compliance on existing conditions and those conditions were considered for project analysis.

As noted in the EA, road decommissioning from a previous decision, 1996 Crane Mountain Salvage Project (which authorized harvest, road management, and other activities in the Crane Mountain grizzly bear subunit) was partially implemented. The 1996 Crane Mountain Salvage Project authorized 80 miles of road decommissioning of which 20.2 miles were decommissioned. A few commenters on the EA expressed concerns about wanting this decommissioning to be completed. Upon further interdisciplinary review through this planning process, I made a different determination than the 1996 decision given the current management objectives of today and predicted future.

Bug Creek will address the remaining 59.8 miles from the 1996 Crane Mountain salvage decision as follows: approximately two miles will be decommissioned and removed from the system; and approximately 57 miles will remain on the Forest Service system (about 50 miles will be "closed yearlong barrier" and about seven miles will be "Seasonally open April 1st to November 30th").

Exhibit 6

United States Department of Agriculture

BUG CREEK INTEGRATED RESOURCE MANAGEMENT PROJECT

ENVIRONMENTAL ASSESSMENT

Forest Service
Flathead National Forest
Swan Lake Ranger District
JULY 2022

For More Information Contact:

District Ranger

Chris Dowling; christopher.dowling@usda.gov

Swan Lake Ranger District

200 Ranger Station Road

Bigfork, MT 59911

406-837-7500

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National Forest System roads used as haul routes would receive road maintenance in accordance with best management practices (BMPs) prior to log hauling. The objectives of road maintenance are to reduce the concentration of subsurface and surface water runoff, minimize road surface erosion, filter ditch water before entering streams, and decrease the risk of culvert failures during peak runoff events. Maintenance work may include culvert installation, replacement of existing culverts with larger culverts, installation of drainage dips and surface water deflectors, placement of rip-rap to armor drainage structures, aggregate surface replacement, aggregate placement to reinforce wet surface areas, ditch construction and cleaning where needed, and surface blading to restore drainage efficiency of the road surface.

A complete detailed listing of specific vegetation treatment proposals by unit may be found in Appendix C, Table 80.

Regeneration/Reforestation

Where regeneration treatments are proposed, a combination of planting and natural regeneration is planned. Regeneration would emphasize establishment of long-lived shade intolerant species such as western larch, ponderosa pine, western white pine, and occasionally Douglas-fir.

Motorized and Non-motorized Management

Motorized Access

A travel analysis report was prepared to identify the need for changes to the NFS road system and can also be found in project file exhibits J-01 and J-02. A summary of the proposed motorized management actions is provided in Table 2. A complete detailed listing of the motorized management proposals by specific road may be found in Appendix C, Table 75.

Table 2. Alternative B - Summary of proposed motorized actions.

Proposed Motorized Recreation Management Designation	Miles
Road Maintenance BMPs[a]	67.8
System Road Construction	13.3
Temporary Roads	5.3
Decommission	2.0
Change portion of NFS road #9714 from Closed Yearlong Gate to Open Seasonally	3.4
Change NFS road #10617 from Closed Yearlong Barrier to Closed Yearlong Gate	2.0
Change: Forest Service Trail #96 (Estes Lake) from Open to Motorized Use (width 50 inches or less) to Non-Motorized	1.6

a. *Roads used for hauling operations would receive road maintenance in accordance with BMPs. As such, the culvert replacements or removals on haul routes would be funded through the timber sale contract. If a decision is made to not use a section of a road for timber haul, then these culvert activities would be funded through other sources as they become available.*

Approximately 13.3 miles of system road is proposed to provide access for the proposed long-term vegetation and fuels management activities and resource management. Approximately 3.2 miles would be new construction and the remaining 10.1 miles is located on existing road templates. System roads would be constructed to the minimum standards necessary for hauling. The system roads would be designated as Maintenance Level 1 roads and managed as impassable after use, except NFS roads #10213, #5242, #5243, and two new roads which would be closed yearlong by a berm post project. Approximately 5.3 miles of temporary roads would be

constructed, 2.1 miles from existing road templates and 3.2 miles of new construction. All temporary roads would be rehabilitated and made impassable following project activities.

Decommissioning removes roads from the landscape that are no longer needed for current or future resource management, pose a threat to water quality, or reduce wildlife security. All stream-aligned and cross-drain culverts would be removed, and the entrance blocked to allow re-vegetation. Other work can include installing water bars and seeding and fertilizing disturbed soil. Decommissioned roads would not count towards total motorized route density, would not be buffered for secure core, and would also be impassible. Impassable roads would be managed as inaccessible to wheeled motorized vehicles and would meet the forest plans impassable definition.

Two barriers would be replaced with gates on NFS roads #9713 and #10617 for wildland fire suppression and administrative access for forest management. The roads would remain closed yearlong to public use. NFS road #9713 currently has a gate at the start and a berm at the junction of NFS roads #9713 and #9714 occurring at milepost 8.2 of #9714. Under both alternatives, a gate would replace the berm.

A barrier currently exists on NFS road #9714, which maintains a yearlong closure on a portion of the road from milepost 9.5 to 12.9 [excludes over-snow access December 1-March 31st]. The remainder of NFS road #9714 is open seasonally. The barrier on NFS road #9714 would be removed and replaced with a gate. The entire NFS road #9714 would be open to the public seasonally from 4/1 to 11/30, providing access between NFS road #9745 and #498.

Additionally, during project activity implementation—approximately 5 years—a portion of NFS road #498, from milepost 12.0 to 16.2, would be closed by a gate to the public and only available for administrative use. This temporary closure to the public is to reduce Open Motorized Route Density (OMRD) in the project grizzly bear subunit, providing for a temporary road density increase that could occur from implementation activities, maintaining consistency with forest plan direction (FW-STD-IFS-03).

The Bug Creek project proposes to re-open the Yew Creek quarry for rock riprap development for reconstruction activities on National Forest System Roads. This quarry would require use of 0.4 miles of historic NFS road #5242 and #5243. These roads would be added to the inventoried road system and be closed yearlong by a gate to allow administrative access.

Bug Creek would supersede any of the 1996 Crane Mountain access management activities that were not implemented. The previous 1996 Crane Mountain Salvage decision approved 80 miles of Forest road system decommission and system removal. Approximately 20.2 miles were decommissioned and removed from the Forest road system. The remaining 59.8 miles were not decommissioned and remain on the Forest road system. Only roads decommissioned are removed from the Forest road system.

The change in road management between the partially implemented 1996 Crane Mountain Salvage Decision and the Bug Creek project Alternatives B and C are displayed in Appendix C, Table 76.

Non-Motorized Recreation

Alternative B includes proposals for new trails, trailheads and a change in the use of an existing trail (Figure 4) consistent with GA-SV-MA7-Crane Obj-01: Construct a designated mountain bike trail system in the Crane Mountain area.

Table 76. Bug Creek Proposed Forest System Road Management adjustments to unimplemented portions of the 1996 Crane Mountain Salvage Decision.

Forest Service Road No.	Begin Mile Point	End Mile Point	Segment Length (mi)	Existing Travel Management Strategy	1996 Crane Decision Travel Management Strategy	Bug Creek Alternative B Travel Management Strategy	Bug Creek Alternative C Travel Management Strategy
498	9.24	16.23	6.990	Seasonally Open 04/01 Thru 11/30	Decommission	Seasonally Open 04/01 Thru 11/30	Same as Alt B
498	16.23	17.444	1.214	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9702	0	2.400	2.400	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9708	0	4.200	4.200	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9716	0	3.100	3.100	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9717	0	4.120	4.120	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9720	0	2.430	2.430	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9723	0	0.400	0.400	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9746	0	4.775	4.775	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier/ISS	Same as Alt B
9746	4.775	4.870	0.095	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier/ISS	Same as Alt B
9754	0	1.04	1.040	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9756	0	0.860	0.860	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9757	0	2.200	2.220	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9765	0	0.406	0.406	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B

Forest Service Road No.	Begin Mile Point	End Mile Point	Segment Length (mi)	Existing Travel Management Strategy	1996 Crane Decision Travel Management Strategy	Bug Creek Alternative B Travel Management Strategy	Bug Creek Alternative C Travel Management Strategy
9765	0.406	1.510	1.104	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9770	0	1.370	1.370	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9804	0	1.600	1.600	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9847	0	0.700	0.700	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9849	0	1.100	1.100	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9874	0	0.880	0.880	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9885	0	3.600	3.600	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9896	0	1.960	1.960	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
10218	0	1.640	1.640	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
10221	0	0.270	0.270	Closed Yearlong Barrier	Decommission	Decommission	Same as Alt B
10223	0	0.700	0.700	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
10612	0	1.090	1.090	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
10617	0	2.060	2.060	Closed Yearlong Barrier	Decommission	Closed Yearlong Gate	Same as Alt B
10618	0	0.610	0.610	Closed Yearlong Barrier	Decommission	Decommission	Same as Alt B
10626	0	1.950	1.950	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B

Forest Service Road No.	Begin Mile Point	End Mile Point	Segment Length (mi)	Existing Travel Management Strategy	1996 Crane Decision Travel Management Strategy	Bug Creek Alternative B Travel Management Strategy	Bug Creek Alternative C Travel Management Strategy
498Y	0	0.060	0.060	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9704Z	0	0.100	0.100	Closed Yearlong Barrier	Decommission	Decommission	Same as Alt B
9754A	0	1.700	1.700	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9765A	0	0.940	0.940	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B
9885A	0	2.130	2.130	Closed Yearlong Barrier	Decommission	Closed Yearlong Barrier	Same as Alt B

Exhibit 7

Decision Notice and Finding of No Significant Impact for the Frozen Moose Project

USDA Forest Service
Glacier View Ranger District
Flathead National Forest
Flathead County, Montana

Introduction

The project area is approximately 151,200 acres and is bounded to the north by the Canadian border, to the west by the Kootenai National Forest, and to the east by the North Fork of the Flathead River. This area includes Trail Creek, Whale Creek, Teepee Creek, Moose Creek, and Red Meadow Creek drainages.

The purpose of the Frozen Moose Project is to move the project area towards the desired conditions defined by the 2018 Flathead National Forest Land Management Plan (forest plan). The difference between the existing condition and the desired condition creates a need for management action on the ground. The purposes for the Frozen Moose Project are identified below, which compel the need for action.

- Reduce tree densities and fuel loadings within the wildland-urban interface to result in less intense fire behavior near communities and facilitate safe wildland fire operations.
- Improve the diversity and resilience of vegetative communities and associated wildlife habitat.
- Maintain and improve aquatic ecosystems.
- Provide a mix of forest products to contribute to economic sustainability, providing jobs and income to local economies.

The Frozen Moose Final Environmental Assessment (April 2021) documents the analysis of effects of the proposed action and no-action alternative to meet this need. This decision notice identifies the activities I have selected to include in my decision and the rationale for that decision, including the finding of no significant impact that shows that an environmental assessment is the appropriate level of analysis. This document includes two maps of the selected alternative and an appendix. Appendix A describes the selected alternative and the design features included.

Decision and Rationale for the Decision

Based upon my review of the alternatives, I have decided to implement a modified selected alternative which includes 7,250 acres of vegetation management on National Forest System lands. A summary of the selected alternative is displayed in table 1 and a description of the activities included in the selected alternative is found in appendix A of this decision notice. This decision also includes two maps of the activities that are included in this decision. The effects of

these activities are described in the Frozen Moose Final Environmental Assessment, April 2021, with supporting information in the project file.

Table 1. Selected alternative summary of activities

Vegetation treatments	Acres
Commercial thin	2,693
Seed tree	487
Total commercial treatment	**3,180**
Estimated sawtimber volume	22, 272 CCF (11.1 MMBF)
Precommercial thin	3,490
Understory removal	302
Special cut	11
Underburning	89
Sagebrush restoration	178
Total noncommercial treatment[a]	**4,070**
Road management[b]	
Culvert replacements on NFS roads	14
Culvert removals on NFS roads	4
	Miles
Historical roads to be returned to NFS road system in an impassable state	13
New temporary road construction	3.6
Temporary road on existing template	2.8
Aquatic restoration activities on historical roads	3.3

a. Noncommercial treatments are funding dependent.
b. Some of the culvert actions are funding dependent.

Changes between the draft decision notice and the final decision notice

This section documents the changes that were made between the draft decision notice that went out for objections in October 2020 and this final decision notice. Following the review of the Frozen Moose project by a regional objection review panel, the responsible official was instructed to "defer restoration of white bark pine in recommended wilderness" (project file exhibit W-17). As a result of this instruction, prescribed burning activities and whitebark pine restoration activities are not included in this decision and the change to acres reflects the removal of these activities.

Between the time of the Frozen Moose draft decision and this final decision, the U.S. Fish and Wildlife Service published a notice in the Federal Register on December 2, 2020, stating that the agency proposes to list whitebark pine (*Pinus albicaulis*) (85 FRN 77408). The forest reviewed the project activities included in this decision and determined there would be "no effect" to whitebark pine as a result of the activities approved in this decision notice (see final environmental assessment and project file exhibit I-11). On October 13, 2020, the U.S. Fish and Wildlife Service withdrew its listing proposal for the North American wolverine in the contiguous United States as a threatened species (85 FRN 64618). Therefore, the discussion of effects to wolverines has been removed from the ESA portion of this decision to reflect the change in listing status, but the analysis of effects to wolverine remains the same as is described in the final environmental assessment.

portions of units 5, 6, 7, 9, 10, 17, 18, 20, 21, 22, 25, 27, 28, 31, 32, 36, 38, 41, 42, 43, 44, 47, 50, 56, 57, 60, 61, 72, 86, 87, 89, 90, 93, 94, 95, 95a, 97, 99, 108, 109, 110, 113, 115, 119, 120, 121, 122, 133, 134, 135, 136, 137, 138, 145, 146, 153c, 153d, and 153e.

In units 28, 30, 31, 35, 37, 47, 50, 53, 56, 67, 89, 90 and 102 retain all downed wood (FW-GDL- TE&V-06).

Scenery

41 Shape individual units, to the extent feasible, economically and technically, to create a natural-appearing unit. Vegetation treatment units should avoid symmetrical shapes, straight lines and angles, disproportionate (to surrounding untreated units) opening and cluster sizes, and artificial lines and patterns. Additionally, treatments should follow natural topographic breaks and changes in vegetation, treat the entire landform and along roadways and trails vary unit sizes, widths, shapes and distances from center lines as much as possible (FW-GDL-SCN-03).

42 Along lands of other ownership boundaries, use irregular clumping and blending of unit edges to avoid introducing dominating lines that could result from introducing unnatural appearing edges (FW-GDL-SCN-03). Vegetation patterns should mimic adjacent vegetation patterns on lands not managed by NFS where feasible. This applies to units 47, 56, 102, 118, and 146.

Transportation

43 All historical roads being returned to the National Forest System will be managed as impassable and have the first portion of the road (generally 50 – 300 ft) treated to make it inaccessible to wheeled motorized vehicles during the non-denning season. This may include, but is not limited to, recontouring the entrance, placement of rock barriers, berms, or natural debris.

44 Prior to placing the berm on Road 1681 the road would be evaluated to see if additional road BMPs or road storage treatments are necessary. The berm will be designed in a manner that allows for over-the-snow use to continue to occur.

45 After the completion of project activities all historical roads that are returning to the National Forest System and the following existing maintenance level 1 National Forest System roads, would be evaluated for road storage treatments to protect forest infrastructure and aquatic resources. This includes NFS roads 10889, 10846, 1675, 1675A, 10889A, 10888, 5332, 5234, 5399.

Minimum treatments shall include:

- Placing waterbars near stream aligned and cross drain culverts
- Stream aligned culverts left in place shall meet the 100 year flood event
- Stream aligned culverts that do not meet the 100 year flood event shall be removed
- Blocking the road entrance

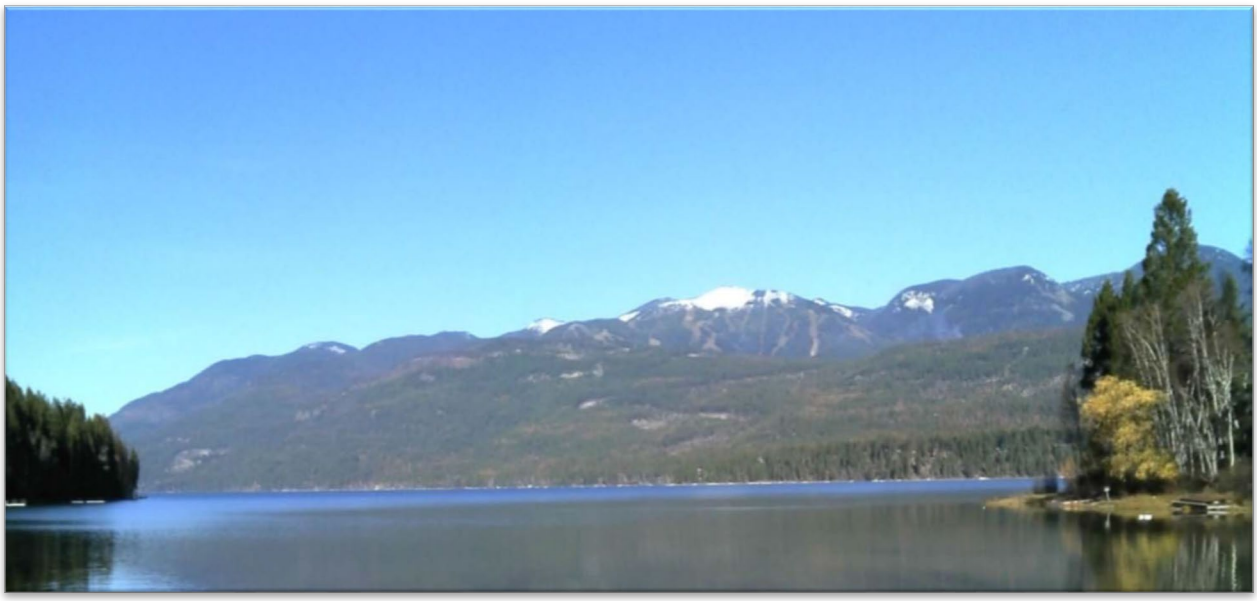
In addition, other treatments could include any combination of the following:

Exhibit 8

United States Department of Agriculture

Final Decision Notice for the Taylor Hellroaring Project

USDA Forest Service
Flathead National Forest
Tally Lake Ranger District
Flathead County, Montana



USDA Forest Service
Tally Lake Ranger District of the Flathead National Forest **November 2019**

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Introduction

This final decision notice for the Taylor Hellroaring Project provides information on: 1) my decision and decision rationale for the selected alternative; 2) public involvement for the project; 3) findings required by other laws and regulations applicable to the decision; 4) the expected implementation date; 5) administrative review opportunities; and 6) where the public can obtain additional information on the project (36 CFR 220.7(c)).

Summary of the Decision

As the responsible official for the project, I authorize the selected alternative to complete vegetation, road, and recreation management activities. The selected alternative includes the vegetation management activities described in Alternatives 2 and 3, and a combination of trails described in Alternatives 2 and 3. The activities are summarized in Table 1 on page 2, detailed in Appendix A, and shown in Figures 1 and 2 of Appendix B. The selected alternative activities would meet the purpose and need for the project:

- To provide a range of trail experiences for hikers, mountain bikers and horse riders to connect the local community with the Flathead National Forest. Opportunities will vary from highly developed accessible trails, near trailheads and roads to more primitive and challenging trails in more remote backcountry while reducing user conflict as well as addressing potential human and wildlife conflicts through trail use designation, trail design and management;
- Increase forest resilience to insect infestation and disease infection and wildland fire disturbances while maintaining a natural-appearing forested setting viewed from the surrounding area;
- Reduce the risk and severity of large scale stand-replacing fires to protect values at risk within the wildland-urban interface, Whitefish Mountain Resort, and electronic sites along the Whitefish Divide;
- To restore whitebark pine and western white pine where suitable habitat conditions exist; and
- Maintain and improve terrestrial wildlife species habitat and security.

The effects of these activities are documented in the August 2019 Taylor Hellroaring Environmental Assessment (EA). The project file provides further documentation.

The environmental assessment provided analysis of two action alternatives: Alternative 2 and Alternative 3. The only difference between the two alternatives was the miles of trail proposed. Alternative 2 included forty miles of trail and Alternative 3 included twenty-six miles of trail. Twenty-eight miles of trail are included in the selected alternative. Information on why this decision was made is in the decision rationale section. For more detailed information on the management activities in the selected alternative, please refer to Appendix A of this decision notice.

Table 1. Summary of management activities in the selected alternative. See Appendix A for more information.

Vegetation management (1,813 acres total)	
Commercial	**954 acres (total)**
Clearcut	82 acres
Seedtree	317 acres
Shelterwood	28 acres
Commercial thin	527 acres
Non-commercial	**859 acres (total)**
Hazardous fuel reduction/old growth improvement (understory removal)	359 acres
Prescribed burning	500 acres
Road management	
National Forest System (NFS) Road	**4.0 miles (total)**
New NFS road construction placed in intermittent stored service after project completion	0.8 miles
Existing NFS road template used and placed in intermittent stored service after project completion	3.2 miles
Temporary road	**0.5 miles (total)**
New temporary road construction	0.2 miles
Existing road template used and rehabilitated after project completion	0.3 miles
Recreation management	
New non-motorized trail construction	28 miles
Trail located on existing open road	14.85 miles
Pullouts on NFS roads	Up to 10
Existing Holbrook parking area upgraded to a designated trailhead, with a vault toilet and information kiosk. Picnic tables, interpretive signs, and a spotting scope could also be provided.	

Decision Rationale

I have decided to authorize the selected alternative after consideration of information provided in the environmental assessment, finding of no significant impact, and project file. I feel the selected alternative best addresses and balances the project purpose and need, concerns from the public, and effects to resources.

How the Selected Alternative Addresses the Purpose and Need

As stated in the environmental assessment, the purpose of this project is to make progress towards achieving desired conditions identified from the Forest Plan (USDA FS 2018b) (EA, pp. 1-4 through 1-9). The environmental assessment also described five needs of the project to help achieve these desired resource conditions. The needs and desired conditions applicable to the project include:

Exhibit 9

United States Department of Agriculture

Hellroaring Basin Improvements Project

Final Decision Notice and Finding of No Significant Impact

Skier looking south into Hellroaring Basin on March 22, 2013. Photo courtesy of Green Kat Photography.

USDA Forest Service
Tally Lake Ranger District of the Flathead National Forest **March 2020**

For more information, contact:

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(1) mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410;

(2) fax: (202) 690-7442; or

(3) email: program.intake@usda.gov.

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Hellroaring watershed below Taylor Creek Road (NFS Road 9790) provides higher levels of grizzly bear habitat security.

Objectors also raised issues that the objection reviewing officer determined to be outside of the scope of the project. These include: Swan View Coalition's disagreements with Forest Plan direction for grizzly bear management; and Friends of the Wild Swan's claim that the Forest is arbitrary and capricious to exclude GA-SM-MA7-Big Mtn-DC-04 from the project's purpose and need.

On February 24, 2020 the objection reviewing officer determined that the project is compliant with all applicable laws and the Forest Plan and granted the Forest permission to sign the decision.

The objection review response and Swan View Coalition and Friends of Wild Swan objections are available in the public comment/objection reading room of the project webpage at https://cara.ecosystem-management.org/Public//ReadingRoom?Project=55012.

Finding of no significant impact

As the responsible official, I determine that the Hellroaring Basin Improvements Project's proposed action will not have a significant effect on the quality of the human environment (40 CFR 1508.27). As a result, no environmental impact statement will be prepared. I base my finding of no significant impact on the context and intensity of effects (40 CFR 1508.2).

Context of effects

The anticipated effects from the proposed action are limited spatially and temporally, when considered in context. They are not likely to significantly affect the human environment or resources within either the local context (e.g. Forest, affected drainages, lynx analysis units, grizzly bear subunits) or broader context (e.g. National Forest System), because:

1. The project area is relatively small (802 acres) and the area of disturbance is relatively small (163 acres) (section 1.2 of the environmental assessment), in context of the four million acres of the Forest (USDA 2018a[3], Vol. 1, p. 4);
2. The activities will occur within the Forest Plan's management area 7 (focused recreation) and the special use permit area of Whitefish Mountain Resort. This is an area of the Forest that is designated for this kind of activity, as demonstrated by the management area's desired conditions (Forest Plan, pp. 110 and 135); and
3. Analyses in the environmental assessment demonstrated how effects from the proposed action will be limited. For example:
    - "Effects (if any) to aquatic resources from the proposed Hellroaring Peak service road and cat track in the Big Creek drainage would not be measurable or distinguishable from other natural or anthropogenic sources given the type, scale, and location of work proposed," (p. 30);
    - "…potential measurable effects [to channel morphology and aquatic habitat]…would primarily be limited spatially and temporally to the stream crossing and stream reach

[3] We will refer to the Flathead National Forest's Final Environmental Impact Statement for its 2018 Forest Plan as "FEIS" throughout the rest of this document.

Exhibit 10

Decision Notice and Finding of No Significant Impact for the Crystal Cedar Project

USDA Forest Service
Hungry Horse-Glacier View Ranger District
Flathead National Forest
Flathead County, Montana
March 2020

Introduction

The Crystal Cedar project area is approximately 27,249 acres in size and is bounded to the south by the community of Columbia Falls and to the west by the Flathead River. This area includes Crystal Creek, Cedar Flats, Spoon Lake, Blankenship Road, and Teakettle Mountain and is located on the Hungry Horse-Glacier View Ranger District.

The purpose of the Crystal Cedar Project is to move the project area towards the desired conditions defined by the 2018 Flathead National Forest Land Management Plan (forest plan). The difference between the existing condition and the desired condition creates a need for management action on the ground. The purposes for the Crystal Cedar Project are identified below, and compel the need for action.

- Provide sustainable trail-based recreation opportunities close to local communities that are compatible with other resources.
- Reduce tree densities and fuel loadings within the wildland-urban interface to result in less intense fire behavior near communities and facilitate safe wildland fire operations.
- Improve the diversity and resilience of forest vegetative communities and associated wildlife habitat.
- Provide a mix of forest products to contribute to economic sustainability, providing jobs and income to local economies.

The updated environmental assessment (EA) documents the analysis of a proposed action and no-action alternative to meet this need. This decision notice identifies the activities I have selected to include in my decision and the rationale for that decision, including the finding of no significant impact that shows that an environmental assessment is the appropriate level of analysis. This document includes two maps of the selected alternative and an appendix. Appendix A describes the selected alternative and the design features.

Decision and Rationale for the Decision

Based upon my review of the alternatives, I have decided to implement the proposed action with modifications, which includes 3,722 acres of vegetation management and construction of approximately 25 miles of trails on National Forest System (NFS) lands. A summary of the selected alternative is displayed in Table 1 and a description of the activities included in the

selected alternative is found in appendix A of this decision notice. The effects of these activities are described in the Crystal Cedar Updated Environmental Assessment November 2019, with supporting information in the project file.

Table 1. Selected alternative summary of activities

Trail construction	**Miles**
Nonmotorized trail	24.2
Motorized trail	0.4
Road management	**Miles**
Temporary roads	6
NFS system road construction	0.9
NFS system road reroute	0.2
NFS system road aquatic organism passage structures	1
Vegetation treatments	**Acres**
Commercial thin	1,886
Seed tree	458
Shelterwood	32
Clearcut	13
Overstory removal	46
Total commercial treatment	**2,435**
Estimated sawtimber volume	18,811 CCF (9.4 MMBF)
	Acres
Sapling thin	558
Understory removal	292
Live birch cutting along open roads[a]	280
Prescribed burning (ecosystem burns)	157
Total noncommercial treatment	**1,287**

a. Acres of live birch cutting along open roads overlap with acres of other types of vegetation treatment

The selected alternative includes many of the activities included in the proposed action and analyzed in the updated EA, with modifications made due to public comment and resource concerns. The following changes were made in the selected alternative:

- Units 54 and 109 have been modified to drop riparian areas adjacent to private property.
- Units 119 and 119a will have hand piling of fuels treatments to address landowner concerns about equipment operating during the non-winter season.
- Units 68 and 128 will require winter logging to reduce ground disturbance, minimize weed spread, and avoid potential seasonal conflicts with local residents and visitors.

Exhibit 11

Decision Notice and Finding of No Significant Impact for the Lake Five Project

USDA Forest Service
Hungry Horse Ranger District
Flathead National Forest
Flathead County, Montana

Introduction

The Lake Five Project includes vegetation treatments and road management activities on National Forest System (NFS) lands on the Hungry Horse Ranger District, Flathead National Forest. An environmental assessment (EA), published in April 2021 with a 30-day comment period offered to the public, assessed the effects of these proposed management activities. An updated EA was released with a draft decision notice in June 2021.

The project area is generally located between the towns of Coram and West Glacier. This project area is defined further in the updated EA on pages 2 and 3 (it is also shown on map 1 at the end of this decision notice). All vegetation treatments are located within the wildland-urban interface (WUI) as established by the Flathead County Community Wildfire Protection Plan (CWPP) (2011). The CWPP was updated in 2021 and included a modified WUI delineation. The new WUI delineation excluded several waterbodies within the project area. The interdisciplinary team determined this modified delineation does not change the potential environmental effects of the proposed activities. All planned treatments are still located entirely in the WUI.

The purpose of the Lake Five Project is to move the project area towards the desired conditions defined by the 2018 Flathead National Forest Land Management Plan (forest plan). The difference between the existing condition and the desired condition creates a need for management action on the ground. The following purposes for the Lake Five Project compelled the need for action:

- Reduce tree densities and fuel loadings within the wildland-urban interface to result in less intense fire behavior near communities and facilitate safe wildland fire operations.
- Improve the diversity and resilience of terrestrial ecosystems and vegetation.
- Provide a mix of forest products to contribute to economic sustainability, providing jobs and income to local economies.

The purpose and need for this project are discussed in further detail in the updated EA on pages 5 and 6. The updated EA also documents the analysis of a proposed action to meet this need. It also evaluates the no-action alternative. This decision notice identifies the activities I have selected to include in my decision and the rationale for that decision, including the finding of no significant impact that shows an EA is the appropriate level of analysis. This document includes a map of the selected alternative and appendix A. Appendix A describes the selected alternative and design features.

Decision and Rationale for the Decision

Based upon my review of the alternatives, I have decided to implement the selected alternative which includes 2,221 acres of vegetation management on NFS lands. A summary of the selected alternative is displayed in table 1 and a description of the activities included in the selected alternative is found in appendix A of this decision notice. The effects of these activities are described in the updated EA with supporting information in the project file.

Table 1. Selected alternative summary of activities

Vegetation treatments	Acres
Commercial thin	599
Seed tree	1,271
Total commercial treatment	**1,870**
Precommercial thin	227
Understory removal	124
Total noncommercial treatment	**351**
Road management	**Miles**
New NFS road to be closed by barrier	0.4
New NFS road to be closed yearlong gate	1.3
New NFS road to be in impassable status	2.6
Historical road to be added to NFS in impassable status	0.6
Total new road construction	**4.9**
NFS haul routes to receive BMPs	20.5
Temporary road	1.3
NFS road to be decommissioned	1.8
NFS road to be gated yearlong (change from bermed)	1.6
NFS road to be in impassable status (change from bermed)	Less than 0.1
NFS road re-routes	Approximately 0.3

The selected alternative is the same as the proposed action analyzed in the updated EA with one modification made from public comment. Due to concerns from neighboring businesses regarding noise and visuals, unit 2 was reduced from approximately 44 acres to 31 acres. The unit change, combined with existing roads and previous harvest, will provide effective fuels reduction to aid in fire suppression.

With this change, the selected alternative will effectively meet the purpose and need for the project.

How the selected alternative addresses the purpose and need

The updated EA identifies the three purposes for the project which compelled the need for action. The purposes of the project and the applicable forest plan desired conditions include:

Exhibit 12

Decision Notice and Finding of No Significant Impact for the Spotted Bear Mountain Project

USDA Forest Service
Spotted Bear Ranger District
Flathead National Forest
Flathead County, Montana

Introduction

The Spotted Bear Mountain Project includes varying vegetation treatments and road management activities that would occur on National Forest System (NFS) lands in the Spotted Bear Ranger District, Flathead National Forest. An environmental assessment (EA), published in April 2022 with a 30-day comment period offered to the public, assessed the effects of these proposed management activities. An updated EA was released with the draft decision notice in July 2022 to clarify information and correct errors identified in the April 2022 EA. A final EA is being released at the same time as this decision notice to clarify information gaps identified during the objection review process. An overview of those updates can be found on page 1 of the final EA.

The project area is located approximately 40 miles southeast of the town of Hungry Horse, MT. This project area is defined further in the final EA (p. 1) and shown on map 1 at the end of this decision notice.

The purpose of the Spotted Bear Mountain Project is to move the project area towards the desired conditions defined by the 2018 Flathead National Forest Land Management Plan (forest plan). The difference between the existing condition and the desired condition creates a need for management action on the ground. The following purposes for the Spotted Bear Mountain Project compelled the need for action:

- Improve the diversity and resilience of terrestrial ecosystems and vegetation.
- Reduce tree densities and fuel loadings within the wildland-urban interface to result in less intense fire behavior near communities and facilitate safe wildland fire operations.
- Provide a mix of forest products to contribute to economic sustainability, providing jobs and income to local economies.

The purpose and need for this project are discussed in further detail in the final EA on pages 5 and 6. The final EA also documents the analysis of a proposed action to meet this need. It also evaluates the no action alternative. This decision notice identifies the activities I have selected to include in my decision and the rationale for that decision, including the finding of no significant impact that shows that an EA is the appropriate level of analysis. This document includes a map of the modified selected alternative and an appendix. Appendix A describes the selected alternative and the design features included.

Decision and Rationale for the Decision

Based upon my review of the alternatives, I have decided to implement a modified selected alternative which includes 1,005 acres of vegetation management on NFS lands. A summary of the selected alternative is displayed in table 1 and a description of the activities included in the selected alternative is found in appendix A of this decision notice.

The effects of these activities are described in the final EA with supporting information in the project file.

Table 1. Selected alternative summary of activities

Proposed vegetation treatments	Acres
Commercial thin	219
Seed tree	493
Total proposed commercial treatment	**712**
Precommercial thin	265
Prescribed burn	28
Total proposed noncommercial treatment	**293**
Proposed road management	**Miles**
New NFS road in impassable status	2.5
Historical road to be added to NFS road system in impassable status	0.9
Temporary road	0.6

Changes between the draft decision notice and the final decision notice

This section documents the changes that were made between the draft decision notice that went out for objections in July 2022 and this final decision notice. Following the review of the Spotted Bear Mountain Project by a regional objection review panel, the responsible official was instructed to "Clarify how adjacent potential vegetation types within treatment units comply with standards in the Flathead National Forest Land Management Plan for openings greater than 40 acres." As a result of this instruction, this decision removes 35 acres of seed tree treatment from the proposed action presented in the draft decision. For additional information, see the public involvement section below.

The forest received a tiered biological opinion from the U.S. Fish and Wildlife Service on effects to Canada lynx, Canada lynx critical habitat, grizzly bear, and wolverine as a result of project activities on September 29, 2022. This decision has been updated to reference the findings presented in that tiered biological opinion.

The objection review also identified some opportunities for clarification of information presented in the July 2022 EA. To address these information gaps, a final EA is being issued with this final decision notice. The updates included within the final EA are summarized on page 1 of the final EA.

How the selected alternative addresses the purpose and need

As stated in the final EA (pp. 5-6), the purpose of the Spotted Bear Mountain Project is to move the project area towards the desired conditions defined by the forest plan (USDA 2018a). The

Exhibit 13

May 2023

Road Hunt:

A Survey of Road Closure Effectiveness

In the Flathead National Forest's Swan Valley Geographic Area

by
Keith Hammer

Swan View Coalition
3165 Foothill Road
Kalispell, MT 59901
keith@swanview.org

Fig. 1: Despite a sign, an earth berm, road closure maps, and promises, motorized use of closed road 10561 persists.

Executive Summary

During the Summer of 2022, we inspected 303 U.S. Forest Service road closure devices in the Flathead National Forest's Swan Valley Geographic Area. Fifty-three percent of them (162) were found to be effective at prohibiting use by motorized vehicles. The remaining 47% (141) showed signs of motorized use behind the closure device and were classified as ineffective.

Gates were found to be the most plentiful (110) type of physical closure device and the least effective at stopping motorized use (31%), with the exception of one closure-sign-alone and one assemblage of root wads, both at 0% effective.

Earth berms (103) and boulder barriers (70) were the next most plentiful and found to be 69% and 70% effective, respectively. Steel guardrail (9) and other types of physical barriers (2) were found to be 56% and 50% effective, respectively.

Of the 141 closures found ineffective at stopping motorized use, 58 (41%) had been violated by motor vehicles detouring around the closure device or past the location where an absent device was supposed to exist. Of the 162 closure devices found to be effective, 108 (67%) had adjacent space suitable for motorized vehicles to detour around the device (potential detour).

Dense stands of trees or brush on and surrounding the closed roadbed were found to contribute to closure effectiveness and a reduction in potential detours. The only type of road closure found 100% effective was in the single case where a bridge over a stream had been removed to close the road.

Fig. 2: A road closure gate on Flathead National Forest road 91220 shows tracks of large motorized vehicles detouring around the gate via the gentle hillside and open space between the trees.

Introduction

The effectiveness of various types of road closures to protect wildlife security has been studied for decades, especially in the habitats of threatened species like grizzly bear and bull trout. Controversy has been rekindled as federal agencies renege on prior comprehensive road reclamation and culvert removal programs developed to respond to those studies, returning largely to the use of road closure devices located only at the start of each closed road.

Fig. 3: Grizzlies; MT Dept. Fish, Wildlife, Parks photo

Grizzly bear research indicates that bears are displaced by motorized vehicles and other human uses of bear habitat. They are displaced from habitat near roads, even roads closed to motorized vehicles by gates or other closure devices, due to vehicle trespass and non-motorized uses of the road behind the devices. Moreover, female bears raising young need 68% of their habitat to be essentially free of roads. [1, 2, 3]

Flathead Forest Plan Amendment 19 (A19) was issued in 1995 to incorporate this research and included limits on Open Motorized Route Density (OMRD) and Total Motorized Route Density (TMRD). A gate could be placed on a road to reduce OMRD, but the entire length of the road had to be reclaimed using barriers, natural debris and vegetation to no longer function as a road or trail and in order to reduce TMRD. Reclamation required that all stream-aligned culverts and bridges be removed so they can't plug or fail during indefinite long-term closure. [4]

Requirements for maintaining Forest Service (FS) roads in bull trout habitat place even more emphasis on not leaving stream-crossing structures to fail behind road closure devices. Biological Opinions (BiOps) issued by Fish and Wildlife Service (FWS) require that all culverts behind gates and permanent barriers be monitored annually and that, if annual monitoring behind barriers "is not feasible, remove all stream crossing structures when the road is closed." They require removal of all stream-crossing structures when roads are reclaimed. [5]

In other words, when done properly, road closures and reclamation benefit bears, other wildlife, water quality, fish and the American taxpayer. The FS and FWS agree that road reclamation that removes all stream-crossing structures, as well as the ditch-relief culverts that channel ditch water under the road, "offers the greatest long-term benefit by reducing sediment de-

Fig. 4: Bull trout; Joel Sartore Nat. Geo. Stock w/ Wade Fredenburg photo

livery, reducing the risk of culvert failure, and the need for maintenance. [6]

When the Flathead National Forest issued its revised Forest Plan in 2018, however, it abandoned A19 and its road reclamation program. The terms "reclaimed"and "reclamation" no longer appear in the Plan's glossary. Instead, roads can simply be made "impassable . . . to wheeled motorized vehicles during the [grizzly bear] non-denning season" by essentially blocking the road entrance. This exempts what are termed "impassable" roads from calculations of TMRD, although stream-aligned culverts behind the closure device need not be removed to prevent culvert failures and in order to help render the roadbed impassable to motor vehicles. [7]

This has rekindled interest in the effectiveness of road closure methods short of full reclamation, since an unlimited number of roads can now reportedly be built and simply blocked off without increasing TMRD and its associated impacts to fish and wildlife. In a lawsuit brought against the revised Flathead Forest Plan and its 2017 BiOp by Swan View Coalition and Friends of the Wild Swan, the U.S. District Court in Missoula, Montana ruled on 6/24/21:

> "The science indicates that, even where 'permanent barriers' are used, road closures may be ineffective and use may occur or continue. Both the [2004] Swan View Coalition Study and the Forest Service Study support that argument . . . Fish and Wildlife Service's failure to consider the effect of ineffective road closures was arbitrary and capricious [violating] the ESA by not considering the impact of ineffective road closures in its 2017 BiOp." [8]

The Court ordered FWS to prepare a new BiOp and FWS indeed issued a new BiOp on 2/16/22. It cites a new road closure monitoring approach begun in 2020 by the Flathead NF [9] , concluding:

> "Overall, 92% of road closure devices forest-wide were found to be effective at restricting unauthorized, public use . . . Given the Forest's efforts to curtail illegal use and the ongoing monitoring and maintenance of closures, the level of illegal motorized use of restricted roads on the FNF is expected to be minimal . . . illegal use is expected to be spatially disparate and temporary and is not likely to collectively cause an adverse effect because most FNF users follow travel regulations and when illegal use is observed or when user-created roads become apparent the FNF corrects the situation as soon as they are able." [10]

The referenced Swan View Coalition Study (Griffin 2004) inspected 169 FS road closures in what is now called the Swan Valley Geographic Area and found only 31.4% of them "showed no signs of [motorized] public trespass or 'administrative' use." [11] As noted in the Executive Summary of this report, and as will be detailed later, our 2022 survey inspected 303 road closures in the same area, finding 53% of them effective at preventing motorized use. Both our studies found less road closure effectiveness than the Flathead NF's 2020 finding of 92% effective forest-wide.

This report will take a look at the disparity in these findings. It will provide photographs demonstrating not all illegal road use can be assumed to be "temporary" and that the Flathead NF does not repair ineffective closure devices promptly, sometimes taking years to do so. It will also review the Flathead's current road closure monitoring strategy.

Methods

Our 2022 survey area included all U.S. Forest Service roads in the Swan Valley Geographic Area, as shown in Figure 5 using Flathead NF data. [12] Every road open

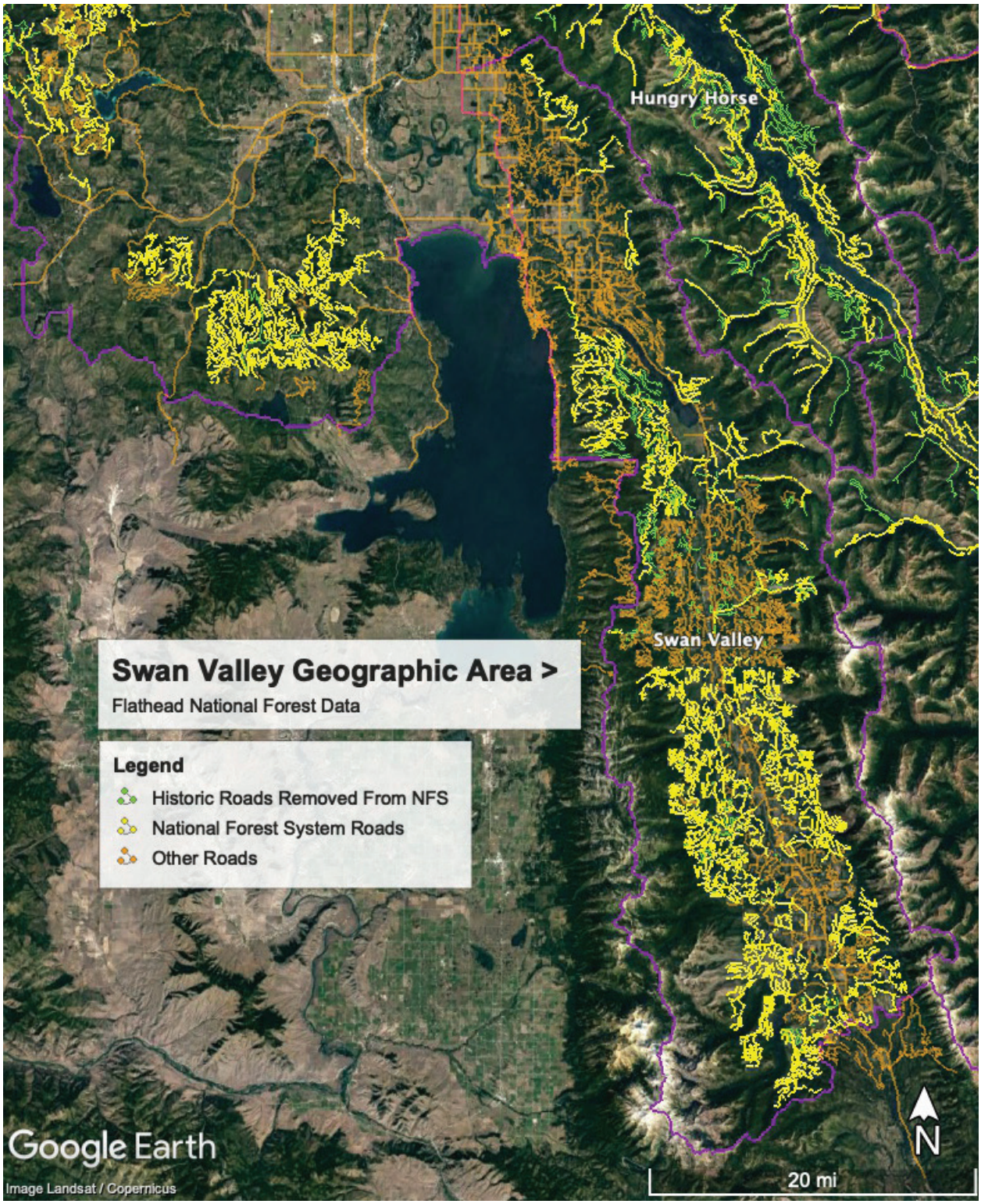


Fig. 5

to motorized travel was driven by Keith Hammer in order to locate all Forest Service roads shown closed to motorized travel on Forest Service maps and to inspect their closure devices.

The most recent Motor Vehicle Use Map of the Swan Lake Ranger District available (January 1, 2022) was used as the authority displaying only those roads and trails open to motorized vehicles. The most recent Swan Lake Ranger District Map available (2016) was used to display the closed roads that intersect with open roads or are the furthermost closed part of an open road.

The District Map was supplemented using the "GAIA GPS" app on iPhone because it utilizes the USFS Roads and Trails database to provide a map layer virtually identical to the District Map, but coupled with the phone's GPS capabilities. [13] Any discrepancies between the two were noted on the relevant Survey Forms. The GAIA USFS map layer also provides each road's meta-data to confirm whether the road is indeed managed as "closed" and subject to only "basic custodial care."

A hard copy of our Road Closure Effectiveness Form (Appendix A) was filled out for each of the 303 closure devices visited. Photos were taken of each device, with emphasis on showing the condition of the closure device and the circumstances described in the Survey Form that determine whether the device is either effective or ineffective at physically prohibiting motorized use beyond the device.

The "Solocator" app was used on the iPhone to automatically provide a visual overlay on each photo showing the GPS coordinates of the photo location, the compass direction the phone camera is facing, and a time and date stamp - along with the road closure number entered manually. [14] A copy of each photo without the data overlay was also saved in case the data overlay obscured any important details. An effort was made to include in each overall photo of the closure device a Forest Service road number sign and/or a small dry-erase board with the road number displayed.

For example, Figure 6 is a GAIA GPS screenshot of the location of the road closure shown in the Solocator photo in Figure 1. Clicking on the dotted-line/closed road would reveal its number (10561) and the meta-data concerning its closure and maintenance status.

Once the field survey data collection was complete, a list of our abbreviations (Appendix B) was used to transfer the data from the survey forms to a spreadsheet (Appendix C). Forms were kept in order and assigned a serial number to keep them aligned with the sequentially taken photos until each photo was assigned to individual computer folders by road closure number.

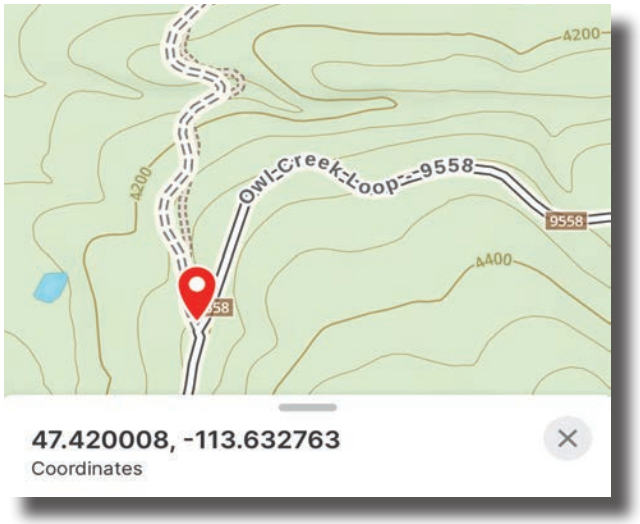


Fig. 6

The spreadsheet includes a column for GPS coordinates, which were derived from the Solocator photo most proximate to the closure device. The spreadsheet also includes notes written on the forms about vegetation and other phenomena, from which another column was added noting if vegetation was dense enough to prohibit motor vehicle use of the closed roadbed.

Results

Field inspections resulted in 303 completed survey forms for FS roads closed to motorized vehicles during the date of inspection. That data was then entered into a spreadsheet (Appendix C). There were 805 pairs of inspection photos, one with and one without the Solocator overlay information (see Methods). The photos are keyed to the spreadsheet via the Road Number.

Road closure effectiveness derived from this survey data is summarized in the Executive Summary and is detailed here. Table 1 lists the number of closed roads that showed no signs of motor vehicle use and were hence considered effective, tallied both by closure device type and overall.

Table 1: Closure effectiveness by closure type.

Closure Type	Effective	Ineffective	Total	% Effective
Boulder	49	21	70	70%
Earth Berm	71	32	103	69%
Rail Barrier	5	4	9	56%
Other Barrier	1	1	2	50%
Gate Steel	34	76	110	31%
No Device	2	6	8	25%
Sign Only	0	1	1	0%
Total	162	141	303	53%

Included in the "Other Barrier" types was one assemblage of root wads shown to be ineffective as a closure device and one bridge removal shown to be effective. Of the 8 road closures having no device at all, only the 2 fully re-vegetated roadbeds were found effective. There were 24 effectively closed roads with roadbeds re-vegetated adequately to physically prohibit motor vehicle use. All but 2 of those re-vegetated roads had a closure device, as noted above.

Table 2 shows which types of closure devices were most common, with steel gates and earth berms by far the most common.

Table 2: Closure type by occurrence.

Closure Type	Count	% of Total
Gate Steel	110	36%
Earth Berm	103	34%
Boulder	70	23%
Rail Barrier	9	3%
No Device	8	3%
Other Barrier	2	1%
Sign Only	1	0%
Total	303	100%

Detours around all closure device types is a common problem. Table 3 shows the percentage of the ineffective closure devices that were detoured around, including driving past a sign or nonexistent barrier.

Table 3: Ineffective closures due to use of detour.

Closure Type	# Ineffective	# Detour Used	% Detour
Root wads	1	1	100%
Guard rail	4	4	100%
No device	6	6	100%
Sign only	1	1	100%
Boulders	21	8	38%
Steel gate	76	27	36%
Earth berm	32	11	34%
Total	141	58	41%

Gates had the lowest effectiveness of any type of physical barrier. Table 4 shows why steel gates were found "ineffective."

Table 4: Why steel gates were found ineffective.

Problem Causing "Ineffective" Determination	#	%
Locked but car/truck tracks behind gate	45	59%
Not locked, not vandalized, car/truck tracks	15	20%
Locked but ATV tracks behind gate	9	12%
Locked but motorcycle tracks behind gate	4	5%
Not locked, not vandalized, motorcycle tracks	1	1%
Not locked due to vandalism, car/truck tracks	1	1%
Not locked due to vandalism, motorcycle tracks	1	1%
Total Ineffective Gates	76	100%

Discussion: Truth and Consequences

As noted earlier, even roads closed to motor vehicles displace grizzly bears and other wildlife due to increased human use of the roadbed. [15] The impacts are even worse if the use of the closed roadbed is motorized, due to the increased wildlife displacement that motor vehicles cause and the increased distances that motor vehicles enable for human encroachment, hunting, trapping and poaching of wildlife. [16, 17].

Figure 7 shows a decomposing wolverine carcass we discovered in the middle of closed road 5392Y, about a mile behind its ineffective closure device on 10/21/21. Research shows that wolverine tend to avoid roads and other human intrusions. [18, 19] We have been unable to find research showing that wolverine tend to leave forest cover and lie down in the middle of a road to die of natural causes. Wolverine are currently being considered for listing under the Endangered Species Act due to threats to its population and a lack of adequate regulatory mechanisms to stem those threats. [20]

Fig. 7: 10/21/21 photo of dead wolverine on road 5392Y.

To add insult to the death of this particular wolverine, the ineffectiveness of the 5392Y road closure has been readily evident for years to Forest Service staff travelling Jewel Basin Road 5392 to reach a Forest Service cabin and trail heads servicing the most popular Hiking Area on the Flathead NF. Figure 8 shows the earliest (8/25/16) photo we have of boulders moved aside to allow passage of full size passenger vehicles to road 5392Y.

Fig. 8: 8/25/16 view of closed road 5392Y from road 5392.

Figure 9 shows this road closure device still not repaired on 10/21/21, more than five years later. We inspected road 5392Y on foot on 10/21/21. Figure 10 shows an example of the cutting of deadfall that kept the road passable and exhibiting use by ATVs for about a mile to Birch Creek, where motorized use then appears to cease due to a rotten, caved in log bridge.

The dead wolverine was located a few yards short of Birch Creek. The skull, one foot and hair samples were provided to

MT Dept. of Fish, Wildlife and Parks (MDFWP) and DNA analysis confirmed this to be a wolverine. [21] No bullet holes were found in what little hide remained, but a broken tooth suggests this wolverine may have been caught in a steel trap and tried to free itself. Because it is unlawful to shoot or trap wolverine in Montana, there is an incentive for a trapper or hunter to leave the carcass of a wolverine in the woods rather than report its demise.

Fig. 9: 10/21/21 photo of road closure 5392Y.

Fig. 10: Clearing of road 5392Y behind its closure device.

MDFWP said it would look into the "illegal motorized use in the area." [22] We also reported the incident and ineffective road closure to the FS District wildlife biologist on 2/7/22. [23]

Figure 11 shows that the road closure had not been repaired by 6/17/22 and was continuing to be trespassed by motor vehicles. Nor had it been repaired by 7/27/22, when it was inspected as a part of this road closure survey, as shown in Figure 12.

Fig. 11: 6/17/22 photo of road closure 5392Y.

Fig. 12: 7/27/22 photo of road closure 5392Y.

We inspected the closure again on 8/28/22 and 10/28/22, and it still had not been repaired, as shown in Figures 13 and 14, respectively. This although the FS inspected this closure on 9/1/22, reporting "Lots of motorized traffic going past the rocks." [24] This serves as just one example of the many years the Flathead NF allows ineffective closures to persist without repair, with potentially fatal consequences to wildlife.

Fig. 13: 8/28/22 photo of road closure 5392Y.

Fig. 14: 10/28/22 photo of road closure 5392Y.

Boulder closures, however, are not the only type of closure devices allowed to languish as ineffective on the Flathead NF. Figure 15 shows an earth berm closure of road 9701 that has been driven over for so long that the berm is barely discernible. This closure was inspected by the FS in 2020 and 2021 and noted as "ineffective" and "no longer functions," respectively. [25] Both inspectors noted the need for repairs, but repairs had not been made prior to our inspection in 2022, as shown in Figure 15. It is not known how long this closure had been ineffective prior to being reported in need of repair in 2020, but the total lack of vegetation on the roadbed suggests it has been trespassed for many years.

We encountered a similar situation with a gate found wide open on road 10229, as pictured in Figure 16. This road has been reported as closed year-round since at least 2006, as shown on the oldest District map readily available. Lack of vegetation in the tire lanes is an indication of significant use by full size motor vehicles.

Fig. 15: Flattened earth berm on "closed" road 9701.

Fig. 16: Year-round gate closure left open on road 10229.

The FS on 8/13/20 reported this gate locked and "effective" but did not inspect it in 2021. [26] We reported it open to the District Ranger on 8/4/22 and wonder if the gate was left open in 2021 as well. The above examples show that, when FWS says the FS repairs closures "as soon as they are able," this may take years. [27]

Reconciling Our Survey Results with the Forest Service's

As discussed earlier in this report, we inspected 303 road closure devices in the Swan Valley Geographic Area in 2022 and found 53% of them effective at stopping motorized vehicles. The FS inspected a total of 1,614 road closure devices Forest-wide in 2019 and 2020 (some of them twice) and found 92% of them effective at "restricting public motorized use." [28, 29]

Perhaps therein lies part of the difference in results. We are interested in knowing which devices actually stop motor vehicles in order to avoid displacement of wildlife. The FS appears to exempt its administrative use and logging contractor use of gated roads in determining closure effectiveness.

The FS survey form does not determine if there are motor vehicle tracks through the gate being inspected, only whether there are tracks going around the device. [30] Motor vehicle tracks that pass through a locked gate are apparently presumed to be "administrative use" and exempt from rendering the gate "ineffective" or "not functional." Similarly, the FS does not count gates as ineffective when the roads they close are "being used by timber sales in accordance with NEPA decisions." [31, 32]

The Flathead Forest Plan acknowledges displacement of grizzly bears by road use but nonetheless exempts administrative use of closed roads "as long as doing so does not exceed either six trips (three round trips) per week or one 30-day unlimited use period during the non-denning season." [33] If those limits are exceeded, another exemption allows excessive road use to persist for 5 years or more as a "project." [34] Neither the Plan or the Forest's Monitoring Program require public reporting of administrative use levels that can be compared to their limits. [35, 36]

These circumstances show that FS survey methods fail to assess whether gates on a random day of inspection actually prevent motorized access that can displace wildlife. Even when we adjust our survey results to adopt these FS exemptions, our finding of 53% overall effectiveness rises only to 68%, far from the 92% reported by the FS.

We noted logging activity behind road closure devices on our 2022 survey forms and spreadsheet. We noted the tracks of trucks or other logging associated equipment through 11 locked gates. We also noted car or truck tracks through 32 more locked gates where logging activity was not noted. Table 5 shows the effect on our survey results of moving these 43 "ineffective" gates to the "effective column." [37]

Figure 16 shows how three round trips per week of administrative use prevents re-vegetation and disrupts wildlife behind what is supposed to be a year-round gate closure. That's assuming that the administrative use limits are complied with and the gate is kept closed to public use, which it was not when we inspected it in 2022. [38]

Table 5: Survey overall effectiveness adjusted for Forest Service exemptions for administrative and logging traffic

Exempted Motor Vehicle Tracks Thru Gates	Ineffective	Effective	Total	% Effective
Survey results without exemptions	141	162	303	53%
Logging activity thru locked gates	+11	-> =173	303	57%
Other car/truck tracks thru locked gates	+32	-> =194	303	64%
Total exempted motor vehicles tracks	+43	-> =205	303	68%

Other Reasons Forest Service Determinations of "Effectiveness" May be Skewed

We find several other reasons that FS determinations of road closure effectiveness may be skewed. Firstly, it is a stated FS objective to annually "strive for inspection of all gates and berms that are accessed by system roads that are open to public motorized use" especially "any devices found to be ineffective the previous year . . . to ensure previous ineffective closures are repaired year to year." [39]. This did not happen during FS monitoring for 2020 - 2022.

For example, the FS found earth berm closure 10561 (Figure 1) ineffective in 2020 and in need of rocks to make it effective. That closure was not inspected in the FS's 2021 and 2022 surveys, however, so it was not counted as ineffective. [40] As mentioned earlier, we found the device ineffective in 2022 and still in need of repair.

Similarly, the FS found earth berm closure 9701 (Figure 15) "flattened allowing cars to pass through" and needing repairs in 2020 and 2021, but did not inspect or report that closure in 2022 even though it remained un-repaired and ineffective, as we found it in 2022. [41]

Not counting ineffective closures as ineffective each year would tend to increase the percentage of effective closures and it violates the stated monitoring objectives. Counting ineffective closures each year until they are repaired and made effective may decrease the effectiveness percentage, but it serves as an incentive to get the closure repaired and removes the incentive to instead increase percent effectiveness by ignoring ineffective closures.

Secondly, the FS tends to either overlook motor vehicle trespass or fails to preempt it where it appears imminent. For example, the FS in 2020 found the closed road 498A berm "effective" but "could be improved." In 2021, rather than improve the berm, the

Fig. 17: Berm driven over by pickups on road 498A.

FS determined the road "difficult to locate and fully blocked by vegetation," calling its closure berm "functional." The FS did not inspect or report this closure in 2022. [42] We found the berm on 8/3/22 driven over extensively by pickup trucks and the road behind it driven for cutting firewood, as shown in Figure 17.

Thirdly, above we get a hint of the fact the FS determined whether or not each closure device inspected was "effective" in 2020, but switched to determining whether or not each closure device was "functional" in 2021 and 2022. [43] In 2021, the FS found 52 closure devices "breached" by motor vehicles but nonetheless listed them as "found functional." [44] These included gates, earth berms and boulder barriers, so not all breaches would qualify as the exempted "administrative use" of gates discussed earlier. Following is a small 2021 sampling of the contradiction in calling closure devices "functional" when they show acknowledged signs of breach by motorized vehicles. [45] "Found functional" by the FS:

Road 895C: "Recent OHV tracks going around gate and continue beyond berm on the other side of the bridge."

Road 9644: "Gate functional. Faint evidence of motorcycle traffic around gate."

Road 10360: "Motorized vehicle tracks on top and beside berm."

Road 2918: "Old ATV tracks over berm."

In 2022, the FS found 32 closure devices "breached" by motor vehicles but nonetheless listed them as "found functional." [46] These included gates, earth berms and boulder barriers, so not all breaches would qualify as the exempted "administrative use" of gates discussed earlier. Following are three examples of road closure devices we found "ineffective" in 2022, while the FS found them breached by motor vehicles but nonetheless considered "functional."

Figure 18 shows how we found road closure 9760 on 8/22/22, noting a wide detour with ATV tracks circumventing the berm closure. We deemed the closure ineffective at preventing motorized use beyond the berm. The FS inspected the closure on 9/20/22 and found the "Berm is functional but path cut to the left of berm where motorized trespassing is occurring." [47]

Fig. 18: ATV detour around road closure berm 9760..

Figure 19 shows how we found gate closure 91241 on 8/29/22, noting clear ATV tracks bypassing the locked gate on its right side when viewed from the open portion of the road. We deemed it ineffective. The FS inspected this gate on 9/13/22, acknowledged the motorized breach and noted the "Gate is functional. Need a rock installed on right side to keep out atv/dirt bikes."[48]

Fig. 19: Gate driven around by ATV on road 91241.

Figure 20 shows how we found gate closure 90336 on 8/30/22, noting tracks of both motorcycles and ATVs detouring around the gate on its left side. We deemed it ineffective. The FS inspected this gate on 9/20/22 and, while acknowledging it had been breached by motor vehicles, simply deemed the gate "functional" without acknowledging the long, well established motorized detour around it. [49]

While there are three columns with headers including the word "effective" in the FS's 2021 and 2022 survey spreadsheets, there are no entries in any of those columns, begging the question of who ultimately determines which road closure devices are "effective" and which are not - and when that determination gets made. [50] Absent a clear indication of "effective," if we assume "functional" to be synonymous with "effective" the FS's percentage of closure effectiveness is 88% in 2021 and 82% in 2022,

down from the 92% it reported "effective" in 2020. If we count the "breached but functional" closures as "ineffective," effectiveness drops to 83% and 77% for 2021 and 2022, respectively. [51]

Fig. 20: Motorcycle and ATV detour around gate 90336.

Lastly, the FS includes a number of second-order closure devices in its surveys. These are closure devices that, in order to reach them, one must first get past a first-order closure device beyond which public motorized use is unlawful.

The FS found that "As of the end of 2020, across the Flathead NF there were 867 road closure devices accessed by open roads." In 2020 the Flathead inspected 1,181 road closures, implying that at least 314 (27%) of these closure devices were second-order and located behind first-order closures. [52]

The FS's spreadsheet for its 2021 survey includes a column indicating whether each closure device is first- or second-order. From this we can determine that 64 (7%) of the 958 closure devices inspected were second-order. Of those 64 second-order closures, 48 (75%) were found "functional."[53]

The FS's spreadsheet for its 2022 survey includes a column indicating whether each closure device is first- or second-order. From this we can determine that 4 (0.5%) of the 702 closure devices inspected were second-order. Of those 4 second-order closures, 1 (25%) was found "functional."[54]

A lack of data specificity for 2020 prohibits us from determining to what degree the inclusion of second-order closures across the 3-year monitoring period may bias the overall percentage of "effectiveness." What is clear, however, is that the percentage of the closures inspected that are second-order has decreased from 27, to 7, to less than 1 over the 3 year period, respectively. This does not bode well for retaining and maintaining second-order closures intended to protect grizzly bear secure core with permanent barriers instead of relying on first-order, less effective gates.

Indeed, of the 8 second-order non-gate closure barriers found "not functional" in 2021, 5 were totally absent and the remaining 3 were being driven over or around. [55] Of the single second-order berm inspected in 2022, it was found "not functional" because "no berm exists." [56] While we don't know which of these second-order non-gate barriers may be protecting grizzly bear "secure core," the decrease in the inspection of second-order closures by the FS is troubling because: 1) the public can't legally access these remote closures with a motor vehicle in order to inspect them, 2) gates alone cannot protect "secure core," and 3) this downward trend does not appear to reflect the FS's stated objective to make the inspection of second order closures that protect "secure core" a higher priority. [57, 58].

The inspection of second-order closures may skew the overall effectiveness percentage, depending on: 1) how and why these second-order devices are being selected for inspection and 2) whether second-order closures generally have a different percentage effectiveness than first-order closures.

Conclusion and Discussion

We have reported here on our 2022 survey of 303 FS road closure devices in the Swan Valley Geographic Unit, finding that only 53% of them showed no signs of motorized vehicle use behind the closure and were deemed "effective" at prohibiting motor vehicle access. We also detailed why some types of closure devices were more or less effective than others.

We note here that a number of closure devices showed so much human use behind them that it was difficult to determine whether there were motorized vehicle tracks among the horse or mountain bike tracks. Road closure 90937, for example (Figure 21), exhibited so much horse use that, if it was being violated by electric e-bikes or motorcycles, those tracks were obliterated by horse hooves. We deemed this closure "effective" according to our motorized use inspection protocol, but such closures beg the question of whether or not they are actually achieving the objective of securing wildlife habitat due to intense non-motorized human uses also known to displace wildlife. [59]

Fig. 21: Heavy horse use of road 90937.

Our survey also inspected each closure for the presence of mountain bike tracks. We found significant mountain bike tracks circumventing the gate closure on road 9814 above Holland Lake near the Flathead/Lolo National Forests boundary (Figure 22). [60] We deemed this closure

Fig. 22: High-use mountain bike and motorcycle detour.

"ineffective" not because of the mountain bike tracks, but because there were car/truck tracks through the gate and motorcycle tracks going around the left side. It is of course impossible to tell which of the mountain bike tracks may have been electric e-bikes (currently considered motorized vehicles by the FS and prohibited from closed roads and trails). [61]

Though gated, road 9814 is used as part of Adventure Cycling Association's "Great Divide Mountain Bike Route," which can be navigated using ACA's maps [62] or by participating in one of ACA's guided bike tours authorized by a Flathead NF Special Use Permit. [63] Moreover, road 9814 serves as a groomed snowmobile/Over Snow Ve-

hicle route Dec. 1 - March 31 each year. [64] This high-use mountain bike/OSV route continues south on Lolo NF road 4370.

Our point here is that even road closures that may be deemed effective at prohibiting motorized use may not be effective at providing wildlife security due to ignorance of the impacts of other human uses. The Flathead's road closure program is not keeping up with wildlife research and is instead becoming more lax. [65]

Even accepting the premise that limiting motorized use alone provides adequate wildlife security, our survey results of 53% effectiveness is significantly lower than the 92% found by the Flathead in 2020. [66] Were we to accept the Flathead's premise that administrative and logging use of closed roads should be exempted from the calculation of closure effectiveness, our survey results rise only to 68% effectiveness. These exemptions aside, the Flathead's survey methods go from bad to worse.

During consultation for FWS's 2/16/22 revised BiOp for the revised Flathead Forest Plan, the Flathead provided FWS documents that promised it would "strive for inspection of all gates and berms" accessible from open roads and would write an appendix to its Road Closure Monitoring Strategy providing details for "Reviewing Surveys and Recording Completed Repairs by FNF Engineers." [67] The Flathead assured FWS it was no longer counting a closure found "ineffective" as "effective" if it could be repaired on the spot. It reported its 2020 survey results in terms of percent "effective." [68, 69]

Simultaneously and in subsequent renditions of the Strategy, however, the Flathead halves its target number of closure inspections and switches to monitoring whether or not closure devices are "functional" rather than "effective". It makes no further mention of the promised appendix and declares it has no protocol or procedures detailing how it uses the survey data collected to determine whether or not a closure is "effective." [70, 71] This casts serious doubt on the Flathead's claim that "The surveying issues were all or mostly corrected before the 2021 pilot year, and results will be directly comparable from year to year after that point." [72]

Moreover, FWS's revised BiOp requires no monitoring or reporting by the Flathead on the effectiveness of its road closures. This is a stark departure from its prior BiOps on the implementation of Amendment 19, which required annual inspection of every first-order closure device, maintenance of that data in a database, and annual reporting on road closure effectiveness. [73]

FWS aside, the revised Flathead Plan requires that the Forest monitor the "effectiveness" of its road closures, yet its Road Closure Monitoring Strategy instead monitors whether road closures are "functional." And it has no protocol or procedures describing how it gets from "functional" to "effective." This report has presented numerous photos and examples of the contradiction of the Flathead calling road closures "functional" when there are motor vehicle tracks reported going through, over or around the device.

This report has also provided numerous photos and discussion showing that, when either FWS or the FS claim that the Flathead repairs its ineffective closure devices "as soon as they are able," this can take years. We've also provided photos and evidence showing that unauthorized motorized use behind ineffective closures is far from temporary and can contribute to adverse effects to wildlife, including death.

Amendment 19 required that, to reduce Total Motorized Route Density, the entire length of a road must be treated to "no longer function as a road or trail [and to]

discourage its use as a motorized or non-motorized travelway." [74] Under the revised Forest Plan, however, TMRD can be reduced or maintained by simply blocking the first 50 feet of a road to motorized vehicles and calling it "impassable." This allows unlimited miles of new roads to be built without increasing TMRD, by simply blocking the entrance with "road entrance obliteration, scarified ground, fallen trees, [or] boulders." [75]

Simply put, the negative effects of roads don't disappear just because: a) they aren't counted in TMRD, b) an attempt has been made to block the entrance of those roads, and c) the FS has declared they are "impassable" to motor vehicles. Figures 2 and 20 (presented again below) show lengthy motor vehicle detours around gates, which could just as easily have been established around 50' of "impassable" treatments.

FWS has wrongfully allowed the FS to return to a reliance on largely ineffective road entrance closures rather than continue with the A19 full road reclamation requirements intended to correct those long-standing problems. In return, the FS is reneging on its promises to monitor all road entrance closures annually for "effectiveness" and to repair them promptly, instead creating a random road closure monitoring and repair strategy based on "functionality."

Fig. 2: A road closure gate on Flathead National Forest road 91220 shows tracks of large motorized vehicles detouring around the gate via the gentle hillside and open space between the trees.

Fig. 20: Motorcycle and ATV detour around gate 90336.

(Notes and Sources begin on the next page)

Notes and Sources

1. See generally Fish and Wildlife Service's 1/6/95 Biological Opinion on Flathead Forest Plan Amendment 19, as amended 2/17/95, for the biological rationale adapting research to Forest Plan objectives and standards, including the BiOp's Incidental Take Statement. Kemper McMaster, Field Supervisor, Montana Field Office.

2. "Apparently, grizzly bears adjust their habitat use patterns in part to both precise open road densities and precise total road densities. Unless a road has completely revegetated, managers should assume that some level of human use is occurring along closed roads, and grizzly bears will respond to that use." Mace, Richard and Tim Manley. South Fork Flathead River Grizzly Bear Project: Progress Report for 1992. April 1993.

3. Flathead Forest Plan Amendment #19: Allowable sale quantity and objectives and standards for grizzly bear habitat management. Decision Notice signed 3/1/95 by Joel Holtrop, Flathead Forest Supervisor. See also Amendment 19 Appendix D: Forest Plan Appendix TT Definitions and implementation direction for restricted roads, reclaimed roads, and security core areas.

4. See note 3, Appendix TT Definitions.

5. Biological Opinion on the effects to bull trout and bull trout critical habitat from the implementation of proposed actions associated with road-related activities that may affect bull trout and bull trout critical habitat in Western Montana. Jodi Bush, Field Supervisor, Ecological Services Montana Field Office of Fish and Wildlife Service. April 15, 2015. The 2015 BiOp follows similar BiOps dated 4/26/99, 8/1/01, and 4/29/08. All these BiOps, and the Forest Service Biological Assessments they respond to, express concerns about continued failure of culverts. The 8/1/01 BiOp and all that follow require the annual inspection of culverts on closed roads.

6. Biological Assessment of Road related activities that affect bull trout and bull trout critical habitat in Western Montana. Prepared by USDA Forest Service Northern Region and UDI Bureau of Land Management Missoula Field Office. Dated 5/5/14, revised 12/15/14.

7. See https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd603490.pdf USDA Forest Service "Flathead National Forest Land Management Plan," Glossary page 199, "impassable road."

8. Molloy, Donald W., U.S. District Court Judge, Opinion and Order in the matter of *WildEarth Guardians v. Steele*. 6/24/21.

9. "Flathead National Forest Road Closure Monitoring Strategy and How-to, As of June 8, 2021," as provided to USFWS and cited in its 2/16/22 Biological Opinion (see note 10). "Starting in 2020, [survey] results were documented via a Survey123/Field Maps process" that allows for survey forms to be filled out on a smart phone or tablet with access to an online map that "is automatically updated as closure devices are inspected, so that orange dots cover up the gate and berm symbols when their inspections are done." (See for example the June 8, 2021 version of the Strategy above and note 31). Various "as of" dates were assigned the Strategy as it was subsequently changed.

10. U.S. Fish and Wildlife Service. Revised Biological Opinion on the Revised Forest Plan for the Flathead National Forest. 2/16/22. (See particularly page III-48).

11. Griffin, Rebekah J. Case Closed: Public motorized trespass and administrative activity on closed roads in the Upper Swan, Lower Swan, and Noisy Face Geographic Units. December 2004.

12. https://www.fs.usda.gov/detailfull/flathead/landmanagement/gis/?cid=fsm9_042517&width=full

13. https://www.gaiagps.com/

14. https://solocator.com/

15. See note 2.

16. Preisler, Haiganoush & Ager, Alan & Wisdom, Michael. (2013). Analyzing animal movement patterns using potential functions. Ecosphere. 4. art32. 10.1890/ES12-00286.1.

17. Naidoo, Robin & Burton, Cole. (2020). Relative effects of recreational activities on a temperate terrestrial wildlife assemblage. Conservation Science and Practice. 2. 10.1111/csp2.271.

18. May, R., Landa, A., van Dijk, J., Linnell, J.D.C. & Andersen, R. (2006) Impact of infrastructure on habitat selection of wolverines Gulo gulo. - Wildl. Biol. 12:285-295.

19. Matthew A Scrafford, Tal Avgar, Rick Heeres, Mark S Boyce. (2018) Roads elicit negative movement and habitat-selection responses by wolverines (Gulo gulo luscus). Behavioral Ecology, Volume 29, Issue 3, May/June 2018, Pages 534–542, https://doi.org/10.1093/beheco/arx182

20. https://www.govinfo.gov/content/pkg/FR-2022-11-23/pdf/2022-25433.pdf

21. MDFWP. 2/3/23 email from Jessy Coltrane to Keith Hammer confirming carcass found 10/21/21 to be wolverine via DNA analysis.

22. MDFWP. 10/27/21 email from Jessy Coltrane to Keith Hammer saying MDFWP would "go look at the issue with illegal motorized use in the area."

23. Keith Hammer. 2/7/22. Emails to Mark Ruby, forwarding him the information previously emailed to Jessy Coltrane/MDFWP about the violation of road closure 5392Y, the clearing of that road, the wolverine carcass found on that road, and the precise GPS location of the carcass.

24. On 1/6/23 we requested of the Flathead NF information regarding the Flathead NF's new Road Closure Monitoring Strategy and "a listing of all the data collected in 2020 [, 2021 and 2022] via the 'Survey 123/ Field Maps process'" that was used to conclude what percentage of the inspected closure devices were "effective." In its 2/6/23 response, the Flathead provided, among other things, three spreadsheets for the road closure data it collected in 2020, 2021, and 2022. Respectively, these files were named 2020BarrierMonitoringData_Final.xlsx, FNF_closure_inspections_2021.xlsx, and FNF_ClosureInspections_2022.xlsx. Because these spreadsheets were provided us in an Excel.xlsx format, as we requested, we were able to search the data by road number and were able to sort the data to enable counting of "effective" closures, "found functional" closures, etc.. The 2020 spreadsheet includes a "pivot table" calculating the reported road closure "effectiveness" (see notes 1 and 32). We were able to confirm those results by sorting and counting "effective" determinations within the spreadsheet itself. The 2021 and 2022 spreadsheets, however, provide no indication of "effective" for individual closures (see note 50) nor any calculation of percent "effective."

See FNF_ClosureInspections_2022.xlsx, the spreadsheet for 2022.

25. See note 24, spreadsheets for 2020 and 2021.

26. See note 24, spreadsheets for 2020 and 2021.

27. See note 10.

28. See note 10.

29. See https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd997996.pdf "Infrastructure (Roads) Monitoring Guide and Evaluation of Results."

30. USDA Forest Service. Flathead National Forest Road Closure Monitoring Strategy and How-to. "As of 6/8/21." See also note 9.

31. See https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd997996.pdf "Infrastructure (Roads) Monitoring Guide and Evaluation of Results."

32. See https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd998894.pdf , "Beiennial Monitoring Evaluation Report for the Flathead National Forest (2019-2020)," pages 58-59.

33. See https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd603490.pdf "Flathead National Forest Land Management Plan," Glossary page 171, "administrative use."

34. See https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd603490.pdf "Flathead National Forest Land Management Plan," Glossary page 195, "project (in grizzly bear habitat in the Northern Continental Divide Ecosystem)."

35. See https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd603490.pdf "Flathead National Forest Land Management Plan," Monitoring, pages 150-169.

36. See https://www.fs.usda.gov/detail/flathead/landmanagement/planning/?cid=fseprd998005 , Forest Plan Monitoring.

37. Logging activity was noted on our Road Closure Effectiveness forms and then transferred to the "Keywords, Notes" column of our survey spreadsheet (Appendix C), where it could later be queried. The number of gates with car/truck tracks passing through the gate (43) is determined by subtracting from the number of gates with car/truck tracks behind the gate (45, Table 4) the number of gates that showed car/truck tracks detouring around the gate to get behind it (2).

38. See note 33.

39. See note 9. The "As of June 8, 2021" version of the "Road Closure Monitoring Strategy and How-to" cited in USFWS's 2/16/22 revised BiOp states the Flathead "will strive for inspection of all gates and berms that are accessed by system roads that are open to public motorized use any time from April 1 to November 30, 2021." Subsequent "As of July 27, 2022" and "As of January 27, 2023" versions of the Strategy both reduce the inspection goal to "half of gates and berms" but both add "Inspection of gates and berms found to be ineffective the previous year, will be completed regardless of the repair status" - with the 2022 version concluding "This strategy will ensure previous ineffective closures are repaired year to year."

40. See note 24, spreadsheets for 2020, 2021 and 2022.

41. See note 24, spreadsheets for 2020, 2021 and 2022.

42. See note 24, spreadsheets for 2020, 2021 and 2022.

43. See note 24, comparing spreadsheets for 2020, 2021 and 2022. See also note 50.

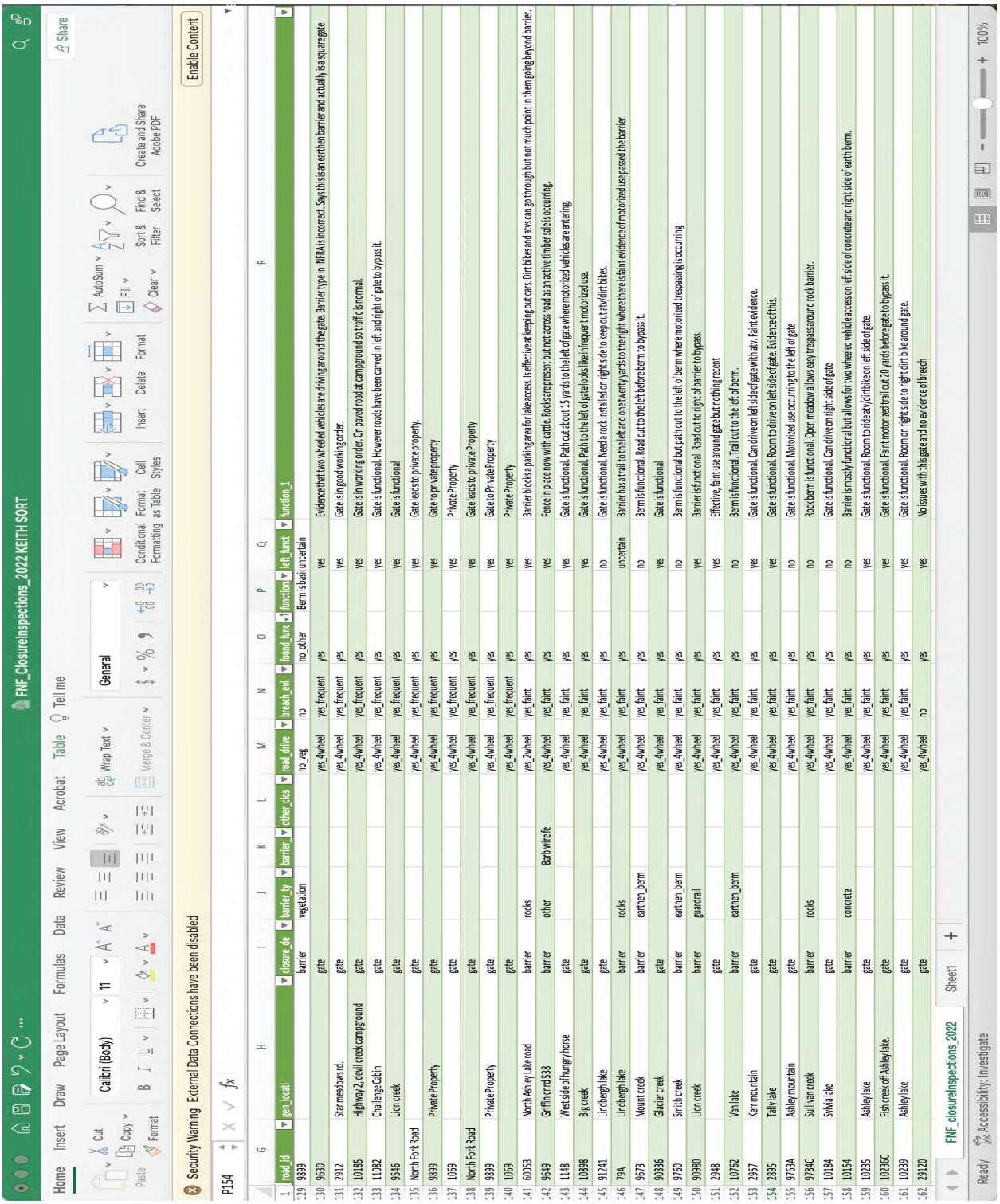
44. See note 24, spreadsheet for 2021.

45. See note 24, spreadsheet for 2021 and our screen shot of that spreadsheet sort on the following page:

FNF_closure_inspections_2021 KEITH SORT

FID	survey_dat	surveyor_n	district	road_id	closure_de	barrier_ty	road_drive	breach_evi	found_func	function_1
74	6/4/21	Adam Kane	hungryhorse	895C	gate		yes_4wheel	yes_frequent	yes	Recent OHV tracks gaping around gate and continue beyond the berm on the other side of bridge
92	6/23/21	Satchel Daly	swanlake	Unknown	barrier	earthen_berm	yes_2wheel	yes_frequent	yes	Berm in good condition. Track next to berm large enough for 2-wheel and small 4-wheel vehicle access.
244	7/19/21	Kimball	tallylake	11282	barrier	rocks	yes_4wheel	yes_frequent	yes	Signs of road errosion, water flowing under barrier down road 50ft
346	7/27/21	Sara frisbee	tallylake	10236	gate		yes_4wheel	yes_frequent	yes	Gate is short.
367	7/28/21	Sara frisbee	hungryhorse	5368	barrier	earthen_berm	yes_4wheel	yes_frequent	yes	Easy jump
564	8/27/21	Aubrey Sullivan	tallylake	2940	gate		yes_4wheel	yes_frequent	yes	Gate is functional but there is a well used trail around the gate, likely for motorized bikes.
575	8/27/21	Aubrey Sullivan	tallylake	10306	gate		yes_4wheel	yes_frequent	yes	Gate not used anymore, road goes around it.
591	8/24/21	Ethan Woodbury	glacierview	5274	gate		yes_4wheel	yes_frequent	yes	Gate open access through gate
599	9/8/21	Aubrey Sullivan	tallylake	2950	gate		yes_4wheel	yes_frequent	yes	Functional
610	9/8/21	Aubrey Sullivan	tallylake	1167	gate		yes_4wheel	yes_frequent	yes	Gate is functional but not keeping out motorized use.
705	9/15/21	Ethan Woodbury	hungryhorse	569	gate		no_veg	yes_frequent	yes	Gate locked and secured no access points through or around gate
774	9/22/21	Aubrey Sullivan	tallylake	10357	gate		yes_4wheel	yes_frequent	yes	Functional
889	10/25/21	Rachel Manley	glacierview	909	gate		yes_4wheel	yes_frequent	yes	Device has been removed. Nothing but lock-closed post remains. Marked effective because it does not need repair.
11	6/3/21	Ethan Woodbury	swanlake	91167	barrier	rocks	yes_2wheel	yes_faint	yes	Device minimal secured.
25	6/7/21	Adam Kane	glacierview	10815	gate		yes_4wheel	yes_faint	yes	N/A
26	6/7/21	Adam Kane	glacierview	10815	gate		yes_4wheel	yes_faint	yes	N/A
27	6/8/21	Adam Kane	hungryhorse	5311	gate		yes_4wheel	yes_faint	yes	N/A
79	6/22/21	Jeremiah Thomas	tallylake	9630	gate		yes_4wheel	yes_faint	yes	Functional, 2 wheeled motorized could go around gate
82	6/22/21	Jeremiah Thomas	tallylake	9644	gate		yes_4wheel	yes_faint	yes	Gate functional. Faint evidence of motorcycle traffic around gate
85	6/23/21	Satchel Daly	swanlake	9549	gate		yes_4wheel	yes_faint	yes	Locked and firm with two locks. Small single track around gate able to accommodate 2-wheeled vehicles.
88	6/23/21	Satchel Daly	swanlake	10666	gate		yes_4wheel	yes_faint	yes	Functional with two locks. Small single track around gate, able to accommodate 2-wheeled vehicles.
90	6/23/21	Satchel Daly	swanlake	2957	gate		yes_4wheel	yes_faint	yes	Gate closed and locked. Small trail beside gate that would accommodate 2-wheeled vehicles.
91	6/23/21	Satchel Daly	swanlake	5232	gate		yes_4wheel	yes_faint	yes	Gate closed and locked. Small track alongside gate suitable for 2-wheel vehicles.
93	6/23/21	Satchel Daly	swanlake	5527	gate		yes_4wheel	yes_faint	yes	Gate closed and locked. Small path alongside gate suitable for 2-wheel vehicles.
95	6/23/21	Satchel Daly	swanlake	10125	gate		yes_4wheel	yes_faint	yes	Gate closed and locked. Small trail alongside gate able to accommodate 2-wheel vehicles.
97	6/23/21	Satchel Daly	swanlake	9178	barrier	earthen_berm	yes_4wheel	yes_faint	yes	Berm in good condition. Small trail leading onto road that may accommodate small 2-wheel vehicles. Large brush pile just before the berm.
98	6/23/21	Satchel Daly	swanlake	10138	gate		yes_4wheel	yes_faint	yes	Gate closed with two locks. Small trail leading onto road from parking area suitable for 2-wheel and small 4-wheel vehicles.
121	6/30/21	Kimball	tallylake	10360	barrier	earthen_berm	yes_4wheel	yes_faint	yes	Motorized vehicle tracks on top and beside berm
125	6/30/21	Kimball	tallylake	2918	barrier	earthen_berm	yes_4wheel	yes_faint	yes	Old Atv tire tracks pover berm
149	7/2/21	Sara frisbee	tallylake	2912	barrier	rocks	yes_4wheel	yes_faint	yes	Big gap in rock formation
209	7/7/21	Kimball	tallylake	9622	barrier	rocks	yes_4wheel	yes_faint	yes	Small rocks and open area in forest with faint motorized use around berm
344	7/27/21	Sara frisbee	tallylake	11293	gate		yes_4wheel	yes_faint	yes	Shared gate
345	7/27/21	Sara frisbee	tallylake	10239	gate		yes_4wheel	yes_faint	yes	Work
365	7/28/21	Sara frisbee	hungryhorse	1048	barrier	earthen_berm	yes_4wheel	yes_faint	yes	Almost gone
391	7/29/21	Kimball	hungryhorse	1629	barrier	earthen_berm	yes_4wheel	yes_faint	yes	Functioning but signs of faint 2 wheel vehicle activity
399	7/29/21	Kimball	hungryhorse	5334	barrier	earthen_berm	yes_4wheel	yes_faint	yes	Faint tire tracts otherwise functional
422	8/2/21	Kimball	hungryhorse	5873	barrier	earthen_berm	yes_2wheel	yes_faint	yes	Functioning, could use closure sign
431	8/2/21	Kimball	hungryhorse	10168	barrier	earthen_berm	yes_4wheel	yes_faint	yes	Faint motorized vehicle tire tracks.
498	8/4/21	Sara frisbee	spottedbear	2847	barrier	earthen_berm	yes_4wheel	yes_faint	yes	Multiple burms
531	7/29/21	Satchel Daly	swanlake	10610	barrier	earthen_berm	yes_2wheel	yes_faint	yes	Berm in good condition. Small path over berm suitable for small 2-wheeled vehicles.
534	7/29/21	Satchel Daly	swanlake	10212	gate		yes_4wheel	yes_faint	yes	Gate found closed and locked. Path next to gate suitable for 2-wheeled vehicles.
535	7/29/21	Satchel Daly	swanlake	10213	barrier	rocks	yes_2wheel	yes_faint	yes	Barrier in good condition. Path through barrier suitable for 2-wheeled motor vehicles.
546	7/28/21	Satchel Daly	swanlake	10229A	gate		yes_2wheel	yes_faint	yes	Gate closed and locked. Path beside gate suitable for light 2 wheel vehicles.
547	7/28/21	Satchel Daly	swanlake	10229P	gate		yes_4wheel	yes_faint	yes	Gate closed and locked upon arrival. Path next to gate suitable for light 2 wheel vehicles.
561	7/1/21	Satchel Daly	swanlake	2824	gate		yes_4wheel	yes_faint	yes	Gate closed and locked upon arrival.
562	7/1/21	Satchel Daly	swanlake	10547	gate		yes_4wheel	yes_faint	yes	Gate found closed and locked.
577	9/3/21	Aubrey Sullivan	tallylake	2920	gate		yes_4wheel	yes_faint	yes	2 wheeled motorized vehicles could get around gate, faint trails on both sides.
589	8/24/21	Ethan Woodbury	glacierview	803	barrier	earthen_berm	yes_2wheel	yes_faint	yes	Device functional no access points through or around barrier
618	9/9/21	Aubrey Sullivan	tallylake	5397	gate		yes_4wheel	yes_faint	yes	Functional
621	9/9/21	Aubrey Sullivan	tallylake	11280	barrier	rocks	yes_4wheel	yes_faint	yes	Rocks in place, but faint evidence that 4-wheeled vehicles can go around it on the right. Road beyond overgrown with grass but driveable.
684	9/14/21	Josh Churchill	tallylake	2981	barrier	earthen_berm	no_veg	yes_faint	yes	Functional
780	9/22/21	Ethan Woodbury	swanlake	2991	barrier	earthen_berm	yes_2wheel	yes_faint	yes	Barrier is secured no access points through may be access for motorcycle UTV/atv around device
0	6/9/21	Sara frisbee	hungryhorse	5311	gate		yes_4wheel	no	yes	It is works. No sign.

46. See note 24, spreadsheet for 2022 and our screen shot below of that spreadsheet sort. Note that a few of the "breached" but "found functional" gates lead to private property or are in a developed campground and therefore may be dismissed from the survey by the FS, according to its Road Closure Monitoring Strategy and How-to" (see note 9) and its monitoring reports (see notes 31 and 32). Our survey included gates on FS roads that lead to private property but weren't located at the private property boundary. Our survey did not include gates located in developed campgrounds or administrative sites.



47. See note 24, spreadsheet for 2022.

48. See note 24, spreadsheet for 2022.

49. See note 24, spreadsheet for 2022.

50. See note 24, spreadsheets for 2021 and 2022. While the June 8, 2021 "Road Closure Monitoring Strategy and How-to" provided USFWS (see note 9) promises that an Appendix D would "be completed" to explain the process for "Reviewing Surveys and Recording Completed Repairs by FNF Engineers," apparently it still has not been. On 2/6/23 we asked the Flathead NF to provide "any and all documents and files that [Part 2 item] b. Describe the protocol or procedure by which the data provided in a completed Hardcopy Form or its Survey 123 electronic equivalent is used to arrive at a determination of whether or not the closure device is 'effective'." On 3/6/23, the Regional Forester informed us that "Staff on the Flathead National Forest conducted a search of their system of records and found no records responsive to Part 2 item b of your request."

Moreover, Part 1 of our 1/6/23 request asked a series of questions, answers to which would help explain how the Flathead NF uses the Survey123 form responses regarding whether the closure device is "functional," etc., to arrive at a determination of whether the device is "effective" or not. Overall, we asked the Flathead NF to "Please describe the process by which multiple items on the Form are used to determine whether that closure device is "effective." The Flathead NF has refused to answer these questions. (3/20/23 email from Michele Dragoo to Keith Hammer).

The few sentences included in Appendix D of the June 8, 2021 "Road Closure Monitoring Strategy and How-to" provided USFWS (see note 9) state "The Survey123 form is set up to automatically generate values in hidden fields for device effectiveness before and after the initial survey as well as after an FNF Engineer completes repairs. The values are 'Yes', 'No', and 'Needs Review'." The 2021 and 2022 spreadsheets provided us by the Flathead NF on 2/6/23, however, provide no values or formulas concerning "effectiveness" in the three empty columns with headers including the word "effective," nor anywhere else that we can determine. The July 27, 2022 and January 27, 2023 versions of the Monitoring Strategy make no mention of the once promised Appendix D.

In its 4/10/23 response to our 3/13/23 follow-up Freedom of Information Act Request, the FS confirmed that its Survey123 inspection form for 2020 asked whether the road closure device was "Effective or Ineffective," not whether it was "functional." The response also confirmed that the June 8, 2021 version of the "Road Closure Monitoring Strategy and How-to" was used to collect the 2021 inspection data and the July 27, 2022 version was used to collect the 2022 data, both of which asked whether the road closure device was "functional" and neither of which asked if the device was "effective." The response also stated that the FS has no records of having calculated the percentage of closure devices found "functional" or found "effective" for 2021 or 2022, nor any versions of the spreadsheets for those years than include data in the columns including the word "effective" in the header.

51. See notes 45 and 46.

52. See Note 31.

53. See note 24, spreadsheet for 2021.

54. See note 24, spreadsheet for 2022.

55. See note 24, spreadsheet for 2021.

56. See note 24, spreadsheet for 2022.

57. See note 3 for source of the A19 requirement that gates cannot protect "secure/security core."

58. See notes 9 and 29 for sources prioritizing the monitoring of closure devices installed to protect "secure/security core."

59. See notes 1-3, and 16-19.

60. Significant mountain bike tracks were also encountered on closed roads in the north end of the Swan Valley Geographic Area, but relevant closures there were visited outside their motorized closure dates, so those closures were not included in this survey. Our Road Closure Effectiveness Form (Appendix A), Key to Abbreviations (Appendix B) and Survey Spreadsheet (Appendix C) include determinations of whether tracks of mountain bikes were present behind closure devices.

61. The FS found gate 9814 "ineffective" on 8/31/20 because it had no lock and was left open. The gate was left open after inspection because the inspector was "not sure if it should be left open or not," even though the Motor Vehicle Use Map shows clearly that it is closed year-round to all motor vehicles except over snow vehicles. The FS did not inspect this gate in 2021 or 2022. See note 24, spreadsheets for 2020, 2021 and 2022.

62. https://www.adventurecycling.org/

63. https://www.fs.usda.gov/project/?project=62077

64. Over Snow Vehicle Use Map, fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5339150.pdf

65. See notes 1-3, and 16-19.

66. See note 29.

67. See note 9, June 8, 2021 version.

68. Kuennen, Reed. 10/24/19. Effectiveness of Road Closures on the Flathead National Forest. In providing an overview of road closure effectiveness monitoring on the Flathead NF, Kuennen among other things notes: "The amount noted as ineffective were tallied differently for the period prior to 2005 and the period from 2005 forward. Prior to 2005, if the device was ineffective but fixed before the inspector left, the device was noted as effective. From 2005 forward, if the device was ineffective upon inspection, the device was noted as ineffective whether or not it was fixed on site."

69. Jacobs, Amy. 8/25/21. Email to USFWS's Kevin Aceituno, providing a copy of "FNF's current road closure monitoring strategy," providing the FNF's 2020 Road Closure Effectiveness Monitoring data, and summarizing Reed Kuennen's review of road closure effectiveness monitoring on the FNF.

70. See note 39.

71. See note 50.

72. See note 32.

73. See the Terms and Conditions and Reporting Requirements of the 10/25/05 and 1/31/14 USFWS Biological Opinion on the Effects of the Flathead National Forest Plan Amendment 19 Revised Implementation Schedule on Grizzly Bears.

74. See note 3, Appendix TT Definitions.

75. See https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd603490.pdf "Flathead National Forest Land Management Plan," Glossary page 199, "impassable road."

Road Closure Effectiveness Form

Swan View Coalition
July 2022 Version

This form is used to determine whether a road closure device is or is not effective in eliminating motorized use of the road behind the closure device.

1. Road number for the road closure #_____.

2. Ranger District and Forest = _____.

3. Type of closure device:

   3.1 Gate = [ ] Steel [ ] Wood [ ] Other _____
   3.2 Barrier = [ ] Earthen [ ] Boulders [ ] Concrete [ ] Other _____
   3.3 Post and Sign [ ]
   3.4 Other [ ] _____
   3.5 No closure device is present [ ].

4. If a gate, is it shut and locked? (Y/N) _____

   4.1 If not, is this due to vandalism (gate damaged or destroyed)? (Y/N) _____
   4.2 Either way, are there motorized tracks visible behind the gate? (Y/N) _____
   4.3 If so, what type of tracks? [ ] Motorcycle [ ] 4-wheel ATV [ ] Car/Truck

5. If a permanent barrier, has it been vandalized enough to allow passage by motorized vehicles (gate destroyed, earth berm driven over, boulders moved aside, etc. - report detours around the barrier in #6, below)? (Y/N) _____

   5.1 Are there any motorized tracks visible over or through the closure device? (Y/N) _____
   5.2 If so, what type of tracks? [ ] Motorcycle [ ] 4-wheel ATV [ ] Car/Truck

6. Is there evidence of motor vehicles detouring around the closure device, not including a simple closure sign (wheel tracks, broken brush, etc.)? (Y/N) _____

   6.1 If so, is the detour large enough for a car or truck vehicle, as opposed to an ATV (is the detour wider than 50")? (Y/N) _____
   6.2 What type of tracks and/or vegetation damage is present?
   [ ] Motorcycle [ ] 4-wheel ATV [ ] Car/Truck

7. Is there a space wide enough for a potential detour around the closure device (but no motorized use is yet apparent)? (Y/N) _____

   7.1 If so, what is the widest space available for a potential detour?
   [ ] Motorcycle [ ] 4-wheel ATV (40" - 50") [ ] Car/Truck

8. If simply a closure sign, are there motorized tracks visible beyond it? (Y/N) _____

   8.1 If so, what type of tracks? [ ] Motorcycle [ ] 4-wheel ATV [ ] Car/Truck

9. If there is no closure device present, are there motorized tracks visible beyond where it should be located? (Y/N) _____

9.1 If so, what type of tracks? [ ] Motorcycle [ ] 4-wheel ATV [ ] Car/Truck

10. If the District or Motor Vehicle Use Map lists Road Vehicle (Car/Truck), Motorcycle and/or ATV use as "Prohibited," what are the closure dates:

10.1 Prohibited yearlong [ ]
10.2 Prohibited _____ through _____
10.3 If prohibition dates are listed, was the closure inspected within those dates? (Y/N) _____

11. Is the closure (check only one):

11.1 [ ] Effective (No evidence of motor vehicle use over, through, around, or beyond the closure device).

11.2 [ ] Ineffective (Evidence of motor vehicle trespass over, through, around, or beyond the closure device or gate not closed and locked. Inspected during "prohibited" closure period for gates and signs; anytime for permanent barriers.)

11.3 [ ] Gate or sign closure inspected outside the "prohibited" closure dates.

12. Is there evidence of bicycle use beyond the closure point, regardless of the closure device type or condition? (Y/N) _____ (This evidence should not qualify the closure as ineffective unless the bicycle was actually present and identifiable as an e-bike or other bicycle with a motor).

13. Take at least one photo of the closure device, focusing on evidence the device is either ineffective or potentially ineffective (tracks beyond, through, or detouring around the device, potential detour around the device, etc.) Place a small blackboard or whiteboard in the photo with the road number (and milepost if there is more than one closure with the same road number being inspected). This will insure the photos are correctly identified and indexed.

If possible, take photos with a camera that assigns the GPS location to the photo's meta data. Better yet, use an App such as Solocator, which overlays the GPS location and time stamp onto the photo itself and may allow insertion of the road number into the overlay as well.

13.1 File number of digital photo(s) _____.
(the file number is not necessary if using an App like Solocator)

Date: _____ Inspector's Signature: _____

Key to Abbreviations Used in Road Closure Effectiveness Form and Spreadsheet

Closure Device Type
BB = boulder barrier
BE = earthen barrier
BR = steel guard rail
BO = other type of barrier
GS = steel gate
N = no closure device
S = sign only

Gate Status
LA = locked, ATV tracks
LC = locked, car/truck/crawler tracks
LM = locked, motorcycle tracks
LN = locked, no motor tracks
NNA = not locked, not due to vandalism, ATV tracks
NNC = not locked, not due to vandalism, car/truck/crawler tracks
NNM = not locked, not due to vandalism, motorcycle tracks
NNN = not locked, not due to vandalism, no motor tracks
NVA = not locked due to vandalism, ATV tracks
NVC = not locked due to vandalism, car/truck/crawler tracks
NVM = not locked due to vandalism, motorcycle tracks

Barrier Status
N = not vandalized, no motor tracks through
NA = not vandalized, ATV through
NC = not vandalized, car/truck/crawler through
NM = not vandalized, motorcycle through
VA = vandalized, ATV through
VC = vandalized, car/truck/crawler through
VM = vandalized, motorcycle through

Detour Used to Circumnavigate Closure Device
DA = detouring ATV
DC = detouring car/truck/crawler
DM = detouring motorcycle
N = no detour used

Potential Detour to Circumnavigate Closure Device
PA = potential for ATV
PC = potential for car/truck/crawler
PM = potential for motorcycle
N = no potential detour

Sign/No Closure Device
NC = not reclaimed, car/truck/crawler tracks
RN = reclaimed, no motor tracks

Assessment
E = Effective, no motor tracks beyond closure device
I = Ineffective, motor tracks beyond closure device

Bike
Y or N, are mountain bike tracks evident?

Re-vegetated
Y or N, is the roadbed behind the closure device revegetated enough to prohibit motor vehicle access?

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
129	33	47.99166, -113.95438	GS	LN		N	PA			E	N	N	8/4/22	track wear stops at gate
5237	76	47.68257, -113.77977	GS	LN		N	PM			E	N	N	8/12/22	
5246	41	47.93168, -113.88676	BB		N	N	N			E	N	Y	8/4/22	good tree reveg
5377	88	47.66256, -113.77321	GS	LN		N	PM			E	N	N	8/19/22	photo GPS corrected using GAIA GPS map
5381	97	47.65963, -113.75077	GS	NNC		N	PA			I	N	N	8/19/22	wide open, road well used
5387	2	48.20694, -114.04228	BE		N	N	N			E	N	N	7/27/22	
9500	213	47.45686, -113.73646	BB		N	DC				I	N	N	8/30/22	DC right shows old use, crushed log, killed small tree
9511	297	47.56985, -113.83961	BB		N	N	N			E	N	Y	9/2/22	boulders close together, good reveg
9512	298	47.56928, -113.84395	BB		N	N	N			E	N	Y	9/2/22	good mtn maple reveg
9513	299	47.56749, -113.84779	BB		N	N	N			E	N	N	9/2/22	
9516	301	47.57177, -113.85125	BB		N	N	PM			E	N	N	9/2/22	PM between boulders
9519	59	47.85629, -113.82213	GS	LN		N	PA			E	N	N	8/12/22	
9521	60	47.85633, -113.82194	GS	LC		DA				I	N	N	8/12/22	gate shouldered by boulders but ATV detour cut thru trees right
9543	156	47.46912, -113.66240	BE		VN	N	PA			E	N	N	8/22/22	PM right of cow path
9545	157	47.46948, -113.65752	GS	LC		N	PA			I	N	N	8/22/22	PA left, PM right

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
9552	208	47.35398, -113.76118	GS	LC		N	PM			I	N	N	8/29/22	PM on right side, 2-tracks barren with car tracks
9553	238	47.49880, -113.77421	GS	LN		N	PM			E	N	N	8/30/22	PM left side
9557	178	47.38665, -113.65318	GS	LC		N	PA			I	N	N	8/23/22	PA either side, log deck rd grader 50 yds behind gate
9560	176	47.38832, -113.62453	GS	LN		N	N			E	N	N	8/23/22	2 tracks reveg with forbs
9561	171	47.42471, -113.59229	GS	LA		DA				I	N	N	8/23/22	
9562	168	47.43694, -113.59196	BB		N	N	PA			E	N	N	8/23/22	tree cut left of boulders
9566	170	47.43161, -113.58788	BO		N	DM				I	N	N	8/23/22	shallow berm and ditch in pit area, then stump wads at road entrance
9568	296	47.57268, -113.83151	BB		N	N	N			E	N	N	9/2/22	slash, rip, boulders first 100 yards or so
9569	224	47.40984, -113.78633	BE		VA	N	PM			I	N	N	8/30/22	VA over left side berm, PM rt side of boulders added to berm
9572	209	47.35423, -113.76111	BB		VM	N	N			I	N	N	8/29/22	boulders moved aside, faint motorcycle track

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
9575	203	47.38045, -113.76061	GS	NNC		N	PM			I	N	N	8/29/22	still 2-track behind gate though mostly motorcycle tracks, pin but no lock, PM right side
9577	219	47.42979, -113.77345	GS	LC		DC				I	N	N	8/30/22	full size detour being used around trailhead 515 kiosk
9584	237	47.49418, -113.74613	GS	NNC		N	PA			I	N	N	8/30/22	pin but no lock, PA left, lots of traffic/tread wear, also dozer/excavator tracks
9586	241	47.50824, -113.79418	BB		VA	N				I	N	N	8/30/22	VA around left boulder, damage veg and trees
9591	288	47.53371, -113.80094	BB		VM	N	N			I	N	N	9/2/22	mcycle tracks between rightmost boulders, snowbike/OSV tracks in mud, Elk Ridge trailhead
9592	220	47.43051, -113.77491	BB		N	N	PM			E	N	N	8/30/22	PM left of boulders
9597	240	47.49963, -113.78320	GS	LN		N	PM			E	N	N	8/30/22	PM either side
9598	235	47.49396, -113.71858	GS	LN		N	PM			E	N	N	8/30/22	PM either side

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
9618	166	47.44056, -113.62152	GS	NNC		N	PA			I	N	N	8/23/22	PA left side
9652	183	47.38275, -113.66773	BB		VN	N	PA			E	N	N	8/23/22	PA left, PM thru, poor replacement of boulders after logging, GPS off a bit
9653	184	47.38001, -113.67380	GS	NNC		N	PM			I	N	N	8/23/22	active logging behind, lock on ground, PM either side
9665	159	47.47933, -113.62236	BE		N	DA				I	N	N	8/22/22	DA left almost wide enough for car/truck
9668	160	47.47981, -113.61390	BE		N	N	N			E	N	Y	8/22/22	good reveg w/ alder before the berm
9700	31	47.99167, -114.00043	BB		N	N	N			E	N	Y	8/3/22	good tree reveg
9701	12	47.98919, -113.98409	BE		VC	N	N			I	N	N	8/3/22	cars driving over "berm"
9702	24	47.91742, -113.95214	BE		N	N	N			E	N	Y	8/3/22	good alder reveg, photo
9704	17	47.96710, -113.98557	BE		N	N	N			E	N	Y	8/3/22	very old detour no longer used, good alder reveg
9706	117	47.59311, -113.71319	GS	LN		N	PA			E	N	N	8/19/22	PA either side
9708	22	47.94655, -113.96385	BE		N	N	PM			E	N	N	8/3/22	looks used but no motors
9710	106	47.63323, -113.71782	BB		VA	N	N			I	N	N	8/19/22	boulder moved aside

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
9713	39	47.93401, -113.92371	BB		VM	N	N			I	N	N	8/4/22	mcycle between boulders and through tank trap
9716	42	47.89617, -113.86895	BE		N	N	PA			E	N	N	8/4/22	PA around right side
9718	91	47.66193, -113.76502	GS	LC		N	PA			I	N	N	8/19/22	PA left side
9720	40	47.93456, -113.90740	BB		N	N	N			E	N	N	8/4/22	
9721	111	47.61456, -113.70198	GS	LN		N	PM			E	N	N	8/19/22	PM left side
9723	19	47.96280, -113.97396	BE		VM	DM	PA			I	N	N	8/3/22	
9726	46	47.86167, -113.87929	BE		N	N	N			E	N	N	8/4/22	berm replacing gate
9727	45	47.85972, -113.89584	N			N	N		RN	E	N	Y	8/4/22	dense vegetation
9728	127	47.60839, -113.74961	BE		VA	N	PC			I	N	N	8/19/22	2-track over berm but hard to see second track
9731	295	47.57371, -113.82984	BR		N	N	PM			E	N	N	9/2/22	alder reveg but still room for PM rt
9732	35	47.98184, -113.95235	GS	LN		N	PA			E	N	N	8/4/22	junk lumber at gate
9737	34	47.98530, -113.95069	BE		N	N	N			E	N	Y	8/4/22	good tree reveg
9738	36	47.97562, -113.95244	BB		N	N	PM			E	N	N	8/4/22	
9741	37	47.96611, -113.95715	BB		N	N	PA			E	N	N	8/4/22	right boulder too short
9751	16	47.97098, -113.97771	BE		N	N	PA			E	N	N	8/3/22	
9753	61	47.85159, -113.82343	BO		N	N	N			E	N	Y	8/12/22	bridge removed, reveg
9755	21	47.94680, -113.96662	GS	NVM		N	PM			I	N	N	8/3/22	
9759	71	47.68571, -113.79441	BE		N	N	PM			E	N	N	8/12/22	

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9767	277	47.57451, -113.77582	BE		VC	N	PA			I	N	N	9/1/22	berm replaced by cattle type gate, motor tracks behind gate, easy PA rt of gate
9768	158	47.46894, -113.63630	GS	LC		N	N			I	N	N	8/22/22	lots of car/truck traffic
9776	32	47.99319, -113.95629	BB		N	N	PA			E	N	N	8/4/22	wood debris on boulders
9789	275	47.57758, -113.79573	BE		N	N	PM			E	N	N	9/1/22	PM over left edge
9793	13	47.98521, -113.98575	BE		N	N	N			E	N	N	8/3/22	could be 9705 instead
9798	266	47.61340, -113.80918	GS	LN		N	PM			E	N	N	9/1/22	PM right
9811	112	47.61037, -113.70247	BE		VM	N	N			I	N	N	8/19/22	mcycle track over berm
9813	134	47.55939, -113.67656	GS	NNC		DM	PA			I	N	N	8/22/22	temp open for firewood cutting but DM around left side and PA around right
9815	133	47.57270, -113.68543	GS	LC		N	PA			I	N	N	8/22/22	rotten log at gate run over, grass laid down both directions
9821	54	47.89980, -113.71774	BB		N	N	N			E	N	N	8/5/22	
9826	225	47.38550, -113.78575	BB		N	N	PM			E	N	Y	8/30/22	PM either side
9874	26	47.90653, -113.95928	BE		VM	N	N			I	N	N	8/3/22	
9879	96	47.65865, -113.74936	BB		VN	N	N			E	N	N	8/19/22	horse trail between b's

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9882	79	47.68225, -113.77306	GS	LM		DM	PA			I	N	N	8/12/22	detour wide enough ATV
9885	25	47.91512, -113.95561	BE		VM	N	N			I	N	N	8/3/22	
9896	28	47.90346, -113.95861	BE		N	N	N			E	N	Y	8/3/22	good reveg
10143	243	47.66908, -113.81495	BR		N	DA				I	N	N	9/1/22	easy DA left, Mid-Swan flagging
10212	8	48.02174, -114.00837	GS	LM		DM	PA			I	N	N	8/3/22	old detour bermed but then driven over by ATV
10218	18	47.96722, -113.98531	BE		VA	DM				I	N	N	8/3/22	becomes no-motors Crane Creek Trail 314
10222	20	47.94857, -113.96445	BE		VM	N	N			I	N	N	8/3/22	becomes no-motors Beardance Trail 76
10226	141	47.55329, -113.69418	BE		VM	N	PM			I	N	N	8/22/22	old motorcycle groove over berm
10296	265	47.62875, -113.81541	GS	LC		N	PA			I	N	N	9/1/22	recent car/truck tracks = grass laid down, PA rt
10319	5	48.07995, -113.93881	GS	LM		DM				I	N	N	7/27/22	Detour thru brush
10320	6	48.07715, -113.93521	BE		NM	DA				I	N	N	7/27/22	Years-long problem
10321	7	48.07190, -113.93270	BE		N	N	N			E	N	Y	7/27/22	5398 fill buried 10321, good reveg
10323	83	47.65822, -113.78807	BB		N	N	PA			E	N	N	8/19/22	
10324	126	47.60514, -113.74339	GS	NNC		N	PC			I	N	N	8/19/22	pin but no lock
10382	253	47.64806, -113.84337	GS	NNN		N	N			E	N	Y	9/1/22	no pin or lock, good forb and tree reveg

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
10383	255	47.63932, -113.84779	GS	LC		DA				I	N	N	9/1/22	much use evident, logs laid in ditch for DA left
10392	252	47.69542, -113.89357	BE		N	N	N			E	N	N	9/1/22	steep tank trap, reveg narrowing road
10503	62	47.77535, -113.70925	BB		N	N	N			E	N	N	8/12/22	1/4 mi up 10503
10512	130	47.58524, -113.69071	GS	LN		N	PA			E	N	N	8/22/22	PA around rt side
10513	131	47.58070, -113.68764	GS	LC		DA				I	N	N	8/22/22	detour left of gate
10519	138	47.55864, -113.68658	BB		VC	N	PC			I	N	N	8/22/22	trespass between boulders, small tree scarred by undercarriage beyond, attempt to secure with small stump
10526	50	47.94820, -113.85481	GS	LC		DA				I	N	N	8/5/22	ATV cut corner of intersect
10528	51	47.95044, -113.84768	GS	NNC		N	PM			I	N	N	8/5/22	wide open, logging
10561	173	47.42002, -113.63277	BE		VA	N	N			I	N	N	8/23/22	VA over berm thru pit
10562	164	47.43905, -113.63470	BE		N	N	PA			E	N	N	8/23/22	
10566	193	47.41998, -113.69985	BE		N	N	PA			E	N	N	8/29/22	PM right edge, PA out wider rt, cutting of two downfall but no motor tracks
10567	191	47.42166, -113.67273	GS	LN		N	PM			E	N	N	8/29/22	PM right end of gate

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10568	192	47.41953, -113.67352	BE		VA	N	PC			I	N	N	8/29/22	old sign of ATV trespass, PC left
10572	175	47.40392, -113.64671	N						NC	I	N	N	8/23/22	no device but closed on MVUM, power boxes alongside, to PVT?
10577	179	47.39565, -113.67334	GS	LN		N	PA			E	N	N	8/23/22	PA left due to tree thinning
10585	47	47.85928, -113.86844	BE		N	N	N			E	N	Y	8/4/22	dense vegetation
10593	186	47.35540, -113.71090	GS	LC		N	N			I	N	N	8/23/22	logging, crawler tracks
10610	9	47.98897, -113.99577	BB		VM	N	N			I	N	N	8/3/22	
10617	29	47.90039, -113.96931	BE		N	N	N			E	N	Y	8/3/22	good reveg
10626	23	47.93330, -113.94606	BE		N	N	N			E	N	Y	8/3/22	good alder reveg
10644	161	47.48886, -113.61766	BE		N	N	PM			E	N	N	8/22/22	some reveg but PM
10648	103	47.64399, -113.73094	BE		N	N	N			E	N	Y	8/19/22	good reveg
10655	87	47.66249, -113.77560	BB		N	N	PA			E	N	N	8/19/22	
10656	109	47.61890, -113.70579	BE		N	N	PA			E	N	N	8/19/22	multiple PA opportunities down fill slope from main road
10691	302	47.58007, -113.86831	BB		N	N	PM			E	N	N	9/2/22	PM between boulders

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10728	202	47.39454, -113.75178	GS	NNM		N	PA			I	N	N	8/29/22	motorcycle tracks appear to have gone through gate, easy ATV detour left, lock but not locked shut
10730	204	47.38013, -113.75974	BB		N	N	PM			E	N	N	8/29/22	PM left side, GPS bit off
10732	201	47.39527, -113.74905	GS	LA		DA				I	N	N	8/29/22	recent DA tracks over sticks and stumps left side
10735	185	47.37402, -113.69862	GS	LC		N	PA			I	N	N	8/23/22	PA left, lots of car/truck traffic, crawler tracks
10741	194	47.41268, -113.72151	GS	LA		DA				I	N	N	8/29/22	active DA at left end of gate, ATV tracks down left fork (90244) with grass laid down and sticks run over
10760	80	47.69166, -113.77013	BB		VA	N	N			I	N	N	8/12/22	boulder moved aside
11614	279	47.57605, -113.77182	GS	LC		N	N			I	N	N	9/2/22	cattle type gate, excavator tracks thru
11615	278	47.57571, -113.77122	BE		N	N	PM			E	N	N	9/2/22	tree reveg at berm but PM wide on right

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
11633	242	47.66943, -113.81388	BR		N	N	N			E	N	N	9/1/22	slash behind rail
11634	244	47.66488, -113.81684	BE		N	N	PM			E	N	N	9/1/22	GPS a bit off
11636	181	47.39581, -113.67674	GS	LC		N	PA			I	N	N	8/23/22	PA up from 9563 below
11650	151	47.45944, -113.65905	BB		N	DA				I	N	N	8/22/22	DA at left edge
90119	108	47.62078, -113.70624	GS	LC		DM	PM			I	N	N	8/19/22	
90120	99	47.65299, -113.73964	BB		N	N	PM			E	N	N	8/19/22	
90121	100	47.64931, -113.73944	BR		N	N	PM			E	N	N	8/19/22	
90124	121	47.58608, -113.73802	GS	LC		N	PM			I	N	N	8/19/22	has pvt coded key box
90209	218	47.43993, -113.75881	GS	LC		N	PM			I	N	N	8/30/22	gate has been broken, welded and is breaking again, PM left
90232	239	47.49991, -113.77595	BB		N	N	N			E	N	N	8/30/22	also steel guardrail
90242	199	47.40383, -113.74047	GS	LC		N	N			I	N	N	8/29/22	old truck tracks, Solocator ID wrong as 91242
90277	174	47.41280, -113.63756	BR		N	N	PM			E	N	N	8/23/22	PM left side
90318	155	47.46468, -113.66273	BE		VN	N	PA			E	N	N	8/22/22	PA right, PM left cow path
90319	153	47.46195, -113.66271	BB		VN	N	PA			E	N	N	8/22/22	easy PA left edge
90320	152	47.45955, -113.65861	BB		VM	N	PM			I	N	N	8/22/22	VM in two spaces between boulders
90322	154	47.46230, -113.66367	GS	LM		DM				I	N	N	8/22/22	easy PM cow path left

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
90324	150	47.45617, -113.65488	BE		VN	N	PA			E	N	N	8/22/22	wide PA on left, easy PA on cattle path left edge
90326	212	47.45539, -113.73199	BB		N	N	PA			E	N	N	8/30/22	PA left
90328	210	47.45261, -113.72040	N						NC	I	N	N	8/30/22	no device but closed on MVUM
90335	234	47.49362, -113.71611	BR		N	DA				I	N	N	8/30/22	rail with berm on right, trees limbed for horse passage, old ATV run-over damage to trees
90336	232	47.49168, -113.71215	GS	LA		DA				I	N	N	8/30/22	DA left thru trees, DA and DM tracks
90355	274	47.57998, -113.79736	BE		N	N	N			E	N	N	9/1/22	
90381	113	47.59731, -113.69847	BE		VC	N	N			I	N	N	8/19/22	old trespass/tracks c/t
90383	114	47.59375, -113.70552	GS	LN		N	PM			E	N	N	8/19/22	PM end of gate
90385	116	47.59267, -113.70964	BB		N	N	PM			E	N	N	8/19/22	PM right side
90387	128	47.59072, -113.69352	BE		N	N	PC			E	N	N	8/22/22	
90388	129	47.58799, -113.69174	BE		N	N	PA			E	N	N	8/22/22	
90391	132	47.57860, -113.68767	BB		N	DM				I	N	N	8/22/22	DM tracks both sides, tire damage to top of downed tree = run over
90392	140	47.55648, -113.69032	GS	LC		DA				I	N	N	8/22/22	long ATV detours being used both sides
90394	139	47.55593, -113.68814	GS	LN		N	PM			E	N	N	8/22/22	PM on right side

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
90398	144	47.54843, -113.68362	BE		N	N	PC			E	N	N	8/22/22	PC right, PA left
90399	145	47.54734, -113.67965	BE		N	N	PM			E	N	N	8/22/22	reveg allows for PM right
90400	147	47.54384, -113.67390	BE		N	N	PA			E	N	N	8/22/22	PA over, PM right
90406	146	47.54720, -113.68018	BE		N	N	PM			E	N	N	8/22/22	PM left edge of barrier
90409	143	47.54936, -113.68815	BE		N	N	N			E	N	Y	8/22/22	good tree reveg
90422	110	47.61666, -113.70195	BE		VA	N	PM			I	N	N	8/19/22	trespass over berm
90440	123	47.59946, -113.73802	BR		N	DA	N			I	N	N	8/19/22	DA around rt side from main road
90441	124	47.59941, -113.73746	BE		N	N	N			E	N	N	8/19/22	
90443	119	47.59377, -113.73296	BE		N	N	PA			E	N	N	8/19/22	PA on left from main road
90445	120	47.58831, -113.73669	BE		N	N	PA			E	N	N	8/19/22	easy PA over, shallow dip
90456	287	47.54109, -113.79270	GS	NNC		DM				I	N	N	9/2/22	lock not closed, older truck tracks, PM shows use in bare dirt and small stump root worn smooth
90476	281	47.56022, -113.78552	BE		N	N	N			E	N	N	9/2/22	huge, deep, broad tank trap, fairly new

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
90480	290	47.56037, -113.80171	GS	LC		N	PM			I	N	N	9/2/22	GAIA says 90480, FS sign at gate says 90408, so photos say both, grass laid down recently thru gate
90482	291	47.56385, -113.80966	GS	LA		DA				I	N	N	9/2/22	ATV tracks, veg damage and veg cutting
90483	292	47.56483, -113.81286	GS	LC		N	PM			I	N	N	9/2/22	older low-axel damage to young trees
90490	293	47.56291, -113.83620	BE		VC	N	N			I	N	N	9/2/22	log skidder ran over berm, didn't repair damage, now usable by >50" ATV
90491	294	47.56268, -113.83669	N			N	N		RN	E	N	Y	9/2/22	overgrown with alder
90511	284	47.54854, -113.79810	GS	LN		N	PM			E	N	N	9/2/22	PM either side
90527	285	47.54357, -113.79814	GS	LC		DA				I	N	N	9/2/22	flanking boulder moved/gone, DA rt, old truck tracks behind gate
90541	271	47.60287, -113.80907	GS	LC		N	PM			I	N	N	9/1/22	logging and trucks thru, PM established around lock post end

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
90556	273	47.58298, -113.80543	GS	LC		N	PA			I	N	N	9/1/22	PA rt of lock post in ditch, old tracks thru
90567	267	47.61219, -113.80750	GS	LC		N	PA			I	N	N	9/1/22	log deck behind gate, PA up left bank and back down, cattle type gate
90568	268	47.61091, -113.80744	BB		N	N	PM			E	N	N	9/1/22	PM rt, heads east toward 90570, on District map but not Gaia, number on post
90570	269	47.60580, -113.80587	BE		VM	N	PM			I	N	N	9/1/22	VM over, PM rt edge
90571	270	47.60547, -113.80598	GS	LC		DC	PM			I	N	N	9/1/22	trucks and excavator tracks thru, old >50" detour up from 888 blocked with slash but still would allow motorcycles
90602	300	47.57149, -113.84349	BE		VN	N	PM			E	N	N	9/2/22	rt side worn down for PM
90610	251	47.69574, -113.89399	GS	LA		DA				I	N	N	9/1/22	ATVs squeezing between lock post and tree, marking both up

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
90619	250	47.67496, -113.86211	N						NC	I	N	N	9/1/22	recent car/truck tracks = grass laid down
90620	249	47.67076, -113.85726	BB		N	N	N			E	N	N	9/1/22	
90920	104	47.63973, -113.72756	BB		N	N	PA			E	N	N	8/19/22	potential detour over right two boulders
90921	102	47.64349, -113.73097	BB		N	N	N			E	N	Y	8/19/22	good start on reveg
90927	105	47.63616, -113.72262	BE		N	N	PM			E	N	N	8/19/22	reveg but open enough for motorcycle on left side, failed to photo this PM
90933	89	47.66239, -113.77325	BB		N	N	PA			E	N	N	8/19/22	
90936	93	47.66158, -113.76315	BE		N	N	PM			E	N	N	8/19/22	PM left side
90937	95	47.66017, -113.75602	BB		VN	N	PM			E	N	N	8/19/22	horse trail between b's
90938	94	47.66000, -113.75638	BB		VN	N	N			E	N	N	8/19/22	horse trail between b's
90939	92	47.66150, -113.76301	BB		N	N	PM			E	N	N	8/19/22	
90946	81	47.69206, -113.76942	BB		N	N	PM			E	N	N	8/12/22	
90953	254	47.64064, -113.84101	GS	LN		N	PM			E	N	N	9/1/22	PM left with limbing
90955	257	47.63761, -113.84809	GS	LC		N	PM			I	N	N	9/1/22	grass laid down tracks, PM left side
90956	256	47.63782, -113.84956	GS	LN		N	PM			E	N	N	9/1/22	PM right side
90959	64	47.69869, -113.80627	BE		N	N	PA			E	N	N	8/12/22	
90962	65	47.69511, -113.80895	GS	LN		N	PC			E	N	N	8/12/22	

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
90963	69	47.68811, -113.79645	GS	LN		N	PM			E	N	N	8/12/22	bent gate locked w/ chain
90964	66	47.68880, -113.80582	BE		N	DC				I	N	N	8/12/22	old detour rt side
90965	67	47.68841, -113.80269	BE		N	N	N			E	N	N	8/12/22	big kelly hump
90966	68	47.68895, -113.79982	BE		N	N	PC			E	N	N	8/12/22	flat land for detour
90969	72	47.68309, -113.79205	GS	LN		N	N			E	N	N	8/12/22	
90972	73	47.68345, -113.78836	BE		N	N	PM			E	N	N	8/12/22	
90974	75	47.68340, -113.78196	BE		N	N	PM			E	N	N	8/12/22	PM rt side
90975	77	47.68248, -113.77895	BE		N	N	PA			E	N	N	8/12/22	PA left side
90976	74	47.68315, -113.78603	BE		N	N	PA			E	N	N	8/12/22	flat land, thinned trees
90978	78	47.68380, -113.77843	BE		N	N	PM			E	N	N	8/12/22	
90983	85	47.65484, -113.77837	BB		VN	N	N			E	N	N	8/19/22	horse trail between b's
90986	84	47.65568, -113.77994	N						NC	I	N	N	8/19/22	car tracks through weeds
91003	264	47.63200, -113.81545	GS	LN		N	PM			E	N	N	9/1/22	PM either side, rit brushy
91008	259	47.65799, -113.82894	BB		VN	N	PA			E	N	N	9/1/22	middle boulder moved, PA through
91009	262	47.65089, -113.82970	BB		N	N	PM			E	N	N	9/1/22	PM right side
91012	263	47.65039, -113.82895	BB		N	N	PM			E	N	N	9/1/22	PM left side
91015	260	47.65693, -113.83044	BE		VM	N	N			I	N	N	9/1/22	driven over by motorcycle
91016	261	47.65356, -113.83102	BB		VN	N	PM			E	N	N	9/1/22	middle boulder moved in past, PM left edge
91061	82	47.65649, -113.79221	BR		VM	DM				I	N	N	8/19/22	rail down left end

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
91063	70	47.68589, -113.79548	BE		N	N	N			E	N	N	8/12/22	wrong ID as 90971 in photo
91099	280	47.57049, -113.78491	BE		N	DC				I	N	N	9/2/22	photos mismarked as 91009, >50" ATV detour wide left with small tree cut
91200	187	47.34500, -113.71726	BB		N	N	N			E	N	Y	8/23/22	good tree reveg, good boulder placement
91203	188	47.33631, -113.72782	GS	LC		N	N			I	N	N	8/23/22	good gate placement, grass laid down recently in 2 tracks
91220	177	47.38657, -113.63709	GS	LA		DA				I	N	N	8/23/22	DA up right bank
91237	195	47.41392, -113.72979	BB		N	N	PM			E	N	N	8/29/22	PM either thru or right
91240	197	47.41142, -113.74388	GS	NNN		N	PM			E	N	N	8/29/22	pin but no lock, PM either side
91241	198	47.41114, -113.74496	GS	LA		DA				I	N	N	8/29/22	clear DA tracks rt side
91286	231	47.48983, -113.70910	BR		N	N	N			E	N	N	8/30/22	flankded by tank traps
91305	227	47.47411, -113.73305	GS	NNC		N	N			I	N	N	8/30/22	pin but no lock
91308	228	47.47353, -113.73434	GS	LN		N	PA			E	N	N	8/30/22	PA rt over flat boulder

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
91309	229	47.47491, -113.73969	BB		N	N	PA			E	N	N	8/30/22	PA either side thru woods, good slash on road, beginning reveg with larch and lodgepole
91313	214	47.45803, -113.74487	GS	LN		N	PA			E	N	N	8/30/22	PA right shows very old DC now grown in to <50" and no recent tracks, judged effective
91326	115	47.59328, -113.70764	BE		N	N	PM			E	N	N	8/19/22	PM left side
91338	135	47.55356, -113.66856	BE		VN	N	N			E	N	N	8/22/22	lots of foot and horse use but couldn't find motor tracks
91346	122	47.59840, -113.73736	BE		N	N	PA			E	N	N	8/19/22	
91423	90	47.66288, -113.76894	BE		VN	N	N			E	N	N	8/19/22	very shallow berm
91448	107	47.62667, -113.71132	BE		N	N	PM			E	N	N	8/19/22	PM over or right side
91456	247	47.65970, -113.84220	GS	LN		N	N			E	N	N	9/1/22	boulders on right
10229 end	44	47.85892, -113.89586	GS	NNC		N	PM			I	N	N	8/4/22	wide open, snowmo trail
10229P	48	47.88458, -113.84110	GS	NNC		DM	PA			I	N	N	8/4/22	Porcupine pit, no lock
10562 w end	163	47.43885, -113.63624	S					NC		I	N	N	8/23/22	cuts over to 10562 paralleling Holland Lake Rd

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
10577 opp	182	47.39539, -113.67353	GS	LC		N	N			I	N	N	8/23/22	across 9563 from 10577, logging on FS, leads to pvt
44 spur south	165	47.43947, -113.62967	BE		VC	N	PM			I	N	N	8/23/22	
498 End	30	47.90064, -113.96850	BE		VM	N	PM			I	N	N	8/3/22	old motorcycle over hump, current snowmobile route
498A	14	47.98148, -113.97914	BE		VC	N	N			I	N	N	8/3/22	badly driven over
498B	10	47.99209, -113.99171	BE		VM	N	N			I	N	N	8/3/22	
498X	27	47.90651, -113.95797	BE		N	N	PM			E	N	N	8/3/22	
498Y	11	47.99221, -113.99173	BB		VA	DA				I	N	N	8/3/22	3 entrances
5206 end	53	47.90014, -113.71912	BB		N	N	N			E	N	N	8/5/22	
5383 end	98	47.66694, -113.73207	GS	LC		N	PM			I	N	N	8/19/22	heavily used road
5385 end Tr 20	3	48.23143, -114.06725	BB		VA	DA				I	N	N	7/27/22	Tr 20 motorcycles only y/l
5388X	1	48.19651, -114.01413	BE		N	DA				I	N	N	7/27/22	
5392Y	4	48.14581, -113.97503	BB		VC	DA	N			I	N	N	7/27/22	Detour is up Co-Ax track, dead wolverine found 10/21/21, active clearing of downfall
561D	216	47.45210, -113.75190	BB		N	N	PM			E	N	N	8/30/22	PM between boulders
561F	217	47.44925, -113.75352	BE		N	N	N			E	N	N	8/30/22	nice deep tank trap
561X	223	47.42373, -113.77483	BE		N	N	PM			E	N	N	8/30/22	PM rt side if tree limbed

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
561Y	222	47.42187, -113.77430	BE		N	N	PM			E	N	N	8/30/22	PM left edge of barrier
680 end	57	47.85704, -113.69628	GS	LN		N	N			E	N	N	8/5/22	gate at bridge
680W	56	47.86791, -113.76029	BE		N	N	PM			E	N	N	8/5/22	
680Y	55	47.88190, -113.79914	GS	LN		N	PM			E	N	N	8/5/22	
79 end	207	47.35562, -113.76541	GS	LN		N	PM			E	N	N	8/29/22	PM on right side
79W n end	205	47.36737, -113.76383	BE		N	N	PM			E	N	N	8/29/22	PM over right edge
79W s end	206	47.35667, -113.76375	BE		N	N	N			E	N	Y	8/29/22	well reveged
79Y	190	47.42206, -113.66190	BE		VC	N	PA			I	N	N	8/29/22	berm recently removed and replaced by poorly placed boulders and stumps, dozer or excavator tracks behind, easy PA either side
888C	276	47.57434, -113.78650	GS	LC		N	PM			I	N	N	9/1/22	excavator thru, PM rt side
888Y	272	47.59035, -113.80841	GS	LC		N	PA			I	N	N	9/1/22	cattle type gate, excavator tracks thru, PA left, PM rt
899 N end	101	47.64706, -113.73884	GS	NNC		N	PA			I	N	N	8/19/22	though bent, gate has pin in place but no lock
899 S end	125	47.60600, -113.73852	GS	LA		DA	N			I	N	N	8/19/22	long detour around left

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
903 end	289	47.53385, -113.80150	GS	LC		N	PM			I	N	N	9/2/22	still barren 2-track, PM left
90337 n end	233	47.49190, -113.71408	BE		N	N	PA			E	N	N	8/30/22	PA rt already cut open with horse tracks
90337 s end	230	47.48938, -113.70914	BE		N	N	N			E	N	N	8/30/22	
903B	283	47.55593, -113.79427	BB		VC	N	PM			I	N	N	9/2/22	boulders replaced with cattle style gate, gate locked but excavator thru, PM either side
903E	286	47.54265, -113.79415	GS	NNC		N	PM			I	N	N	9/2/22	cattle type gate, locking chain can be unhooked, PM rt, older truck ruts
90400 opp	148	47.54383, -113.67407	BB		VN	N	PM			E	N	N	8/22/22	clear path between boulders, located opposite side of 9550 from 90400
905 end	162	47.49142, -113.61644	BE		N	N	PC			E	N	N	8/22/22	poor berm at right, located approx 0.5 mile shorter than map, prior to 905Y
9508A	49	47.93866, -113.85522	N						NC	I	N	N	8/5/22	old gate is gone, logging

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
9508B	52	47.94557, -113.85859	GS	NNC		N	PM			I	N	N	8/5/22	actual rd jct is SW of FS mapped location, logging
9508X	58	47.95148, -113.87585	BB		VA	N	N			I	N	N	8/12/22	log placed to help ATV climb over boulders, veg damage behind boulders
9530 end	63	47.77602, -113.70521	BE		NM	DM				I	N	N	8/12/22	mcycle over/around left edge, GPS is a bit off
9546 end	86	47.64922, -113.77340	GS	LN		N	PC			E	N	N	8/19/22	wide horse detour at gate, thinned flat forest for PC
9550A	142	47.54835, -113.69885	BE		N	N	PA			E	N	N	8/22/22	
9558Y	167	47.43928, -113.60266	BB		N	DA				I	N	N	8/23/22	tree cut right for DA
9563 end	180	47.39641, -113.67785	GS	LC		N	PA			I	N	N	8/23/22	PA left side
9566 opp	169	47.43236, -113.58847	BE		VC	DC				I	N	N	8/23/22	located opposite 9566 pit area, high use road blazed with painted arrows over/past right half of berm, is this a bike tour camp down by the creek?

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
9568 end	303	47.58015, -113.86813	BB		VM	N	N			I	N	N	9/2/22	PM between boulders, m tracks beyond creek
9570 end	189	47.33319, -113.72917	GS	LC		N	PM			I	N	N	8/23/22	PM left, 2 tracks barren
9576 end	221	47.42719, -113.78303	GS	LN		N	PM			E	N	N	8/30/22	PM right end of gate
9578 n end	211	47.45329, -113.72996	GS	LC		N	PM			I	N	N	8/30/22	significant car/truck use, connects Kraft 561 to Lindbergh 79 on s end
9578 s end	196	47.41265, -113.74172	GS	LC		DC				I	N	N	8/29/22	active DC around right of gate, at least a >50" ATV if not truck, jct w/ 79, connects to Kraft 561
9580 end	215	47.45630, -113.75738	GS	NVC		N	PM			I	N	N	8/30/22	locking post broken off, 2-tracks not reveged, PM right
9591Y	236	47.49365, -113.72017	N						NC	I	N	N	8/30/22	no device, fresh tracks
966B	246	47.65773, -113.83944	BB		N	N	PA			E	N	N	9/1/22	old detour recently blocked but PA remains by going up bank and back down

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
966C	248	47.65539, -113.84348	BB		VN	N	PM			E	N	N	9/1/22	PM left or thru boulders
966Y	245	47.66368, -113.82965	BE		N	N	N			E	N	Y	9/1/22	berm with boulders, tree reveg behind berm, Mid-Swan flagging
9713 at 10229	43	47.87229, -113.88730	GS	LC		N	PA			I	N	N	8/4/22	PA left, PM right, downfall cut behind
9714 at 498	15	47.97400, -113.97488	GS	LC		N	N			I	N	N	8/3/22	
9714 at 9745	38	47.94479, -113.94319	BE		VA	DA				I	N	N	8/4/22	AT detour left side
9760 east end	149	47.54836, -113.70162	BE		N	DA	N			I	N	N	8/22/22	clear wide DA left
9762 end	137	47.54936, -113.66719	BB		VA	N	PC			I	N	N	8/22/22	left boulder move and utilized by ATV, car/truck could fit through, straddled brush scarred up
9762Y	136	47.55005, -113.66782	BE		N	N	N			E	N	N	8/22/22	brand new berm 50 yds down 9762, new trail parking being built
9785A	282	47.55713, -113.77870	GS	LC		N	PM			I	N	N	9/2/22	gate cross bar is broken, could be finished by hand, truck tracks in mud and still 2-track, PM left

Road #	Frm #	Road Closure Location Latitude, Longitude	Closure Device	Gate	Barrier	De-tour	Pot Det	Sign	No Dev	Assess-ment	Bike	Re-veg	Inspect Date	Keywords, Notes
97A end	200	47.39733, -113.74341	BB		N	DC				I	N	N	8/29/22	DC shows tracks at least >50" wide, 2-track turns to 1-track further on
9814 end	172	47.42097, -113.61585	GS	LC		DM				I	Y	N	8/23/22	no veg in 2 tracks, major mtn bke detour around left plus motorcycle track, also snowmobile route and N Cont Divide Mtn Bike Rt
9835Y	118	47.59441, -113.71553	BE		N	N	PA			E	N	N	8/19/22	PA either side
9879 FS bndry	226	47.45538, -113.70668	GS	LC		N	PA			I	N	N	8/30/22	PA between gate and berm dip, where entering FS land, dozer/exc tracks
996 end	258	47.63794, -113.84886	GS	LC		N	PM			I	N	N	9/1/22	recent car/truck tracks, poor flanking fix left PM rt side

CERTIFICATE OF SERVICE

I hereby certify that on August 2, 2023, I filed the foregoing with the Clerk of the Court using the CM/ECF system, which will cause a copy to be served on all counsel of record.

/s/ Benjamin J. Scrimshaw
Benjamin J. Scrimshaw