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Road Hunt:
A Survey of Road Closure Effectiveness
In the Flathead National Forest's Swan Valley Geographic Area

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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

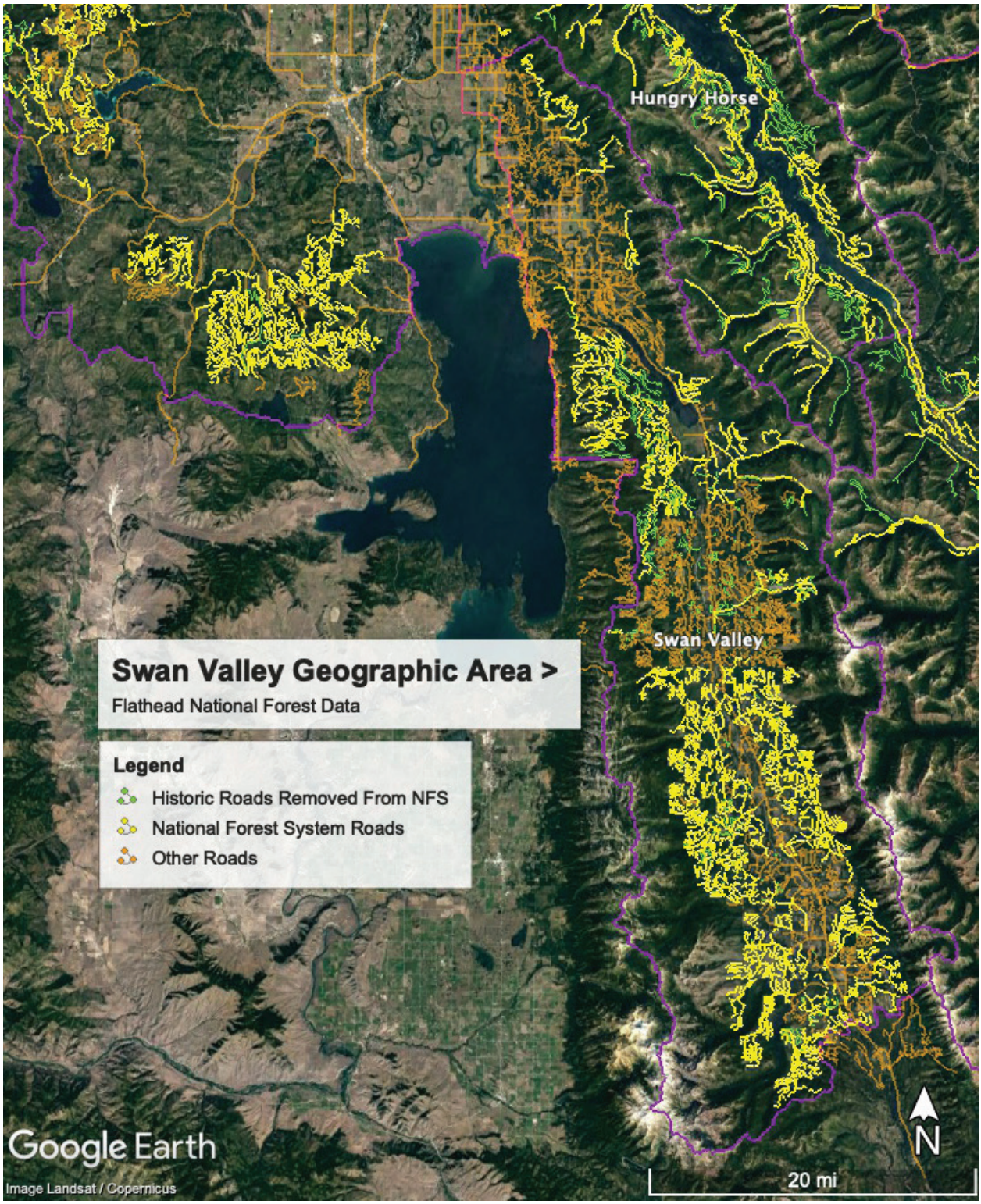


Fig. 5

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.

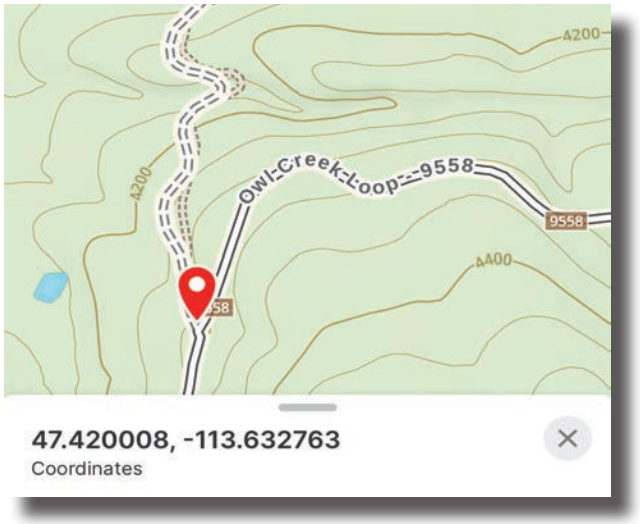


Fig. 6

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.

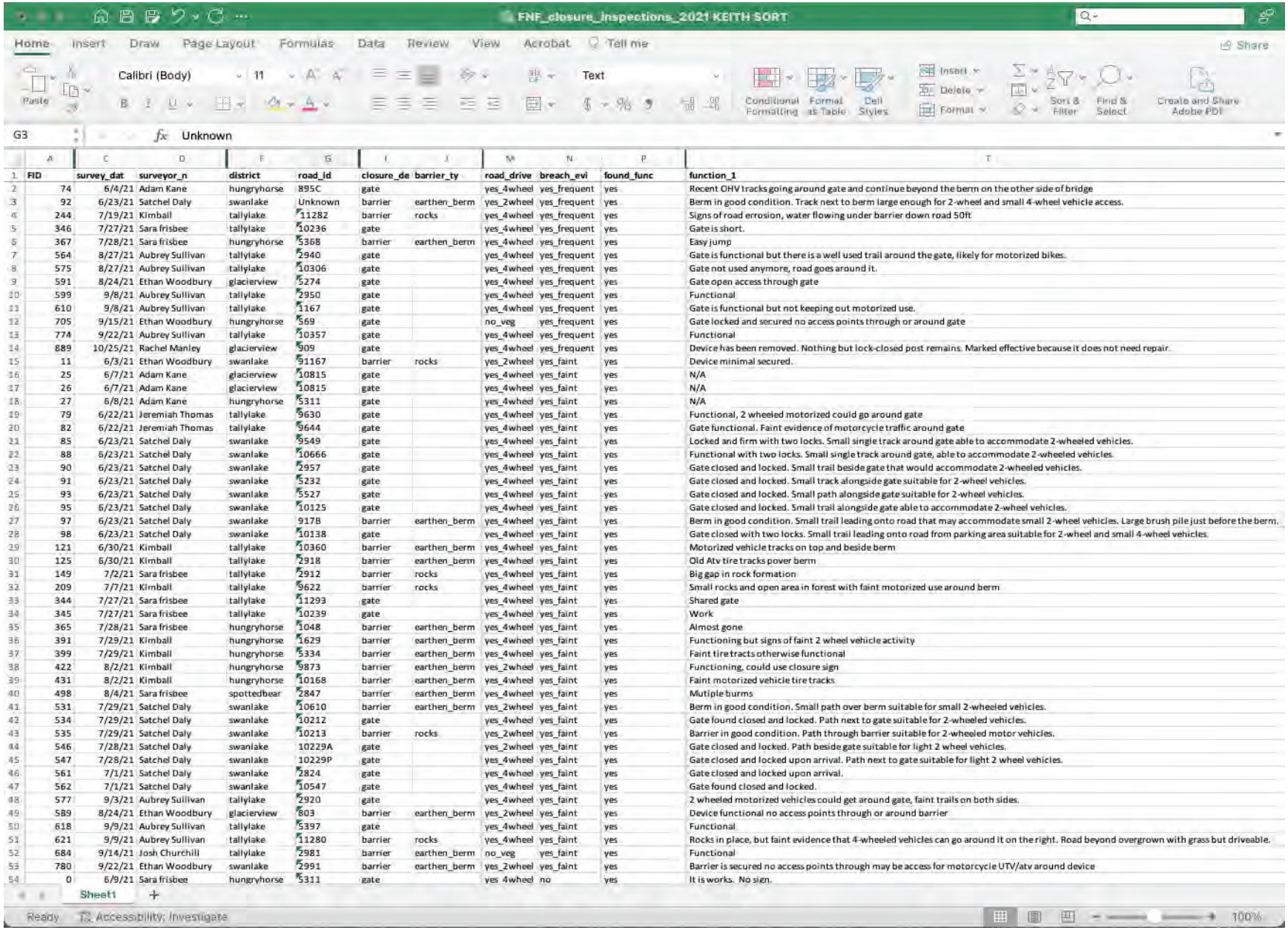
41. See note 24, spreadsheets for 2020, 2021 and 2022.

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.

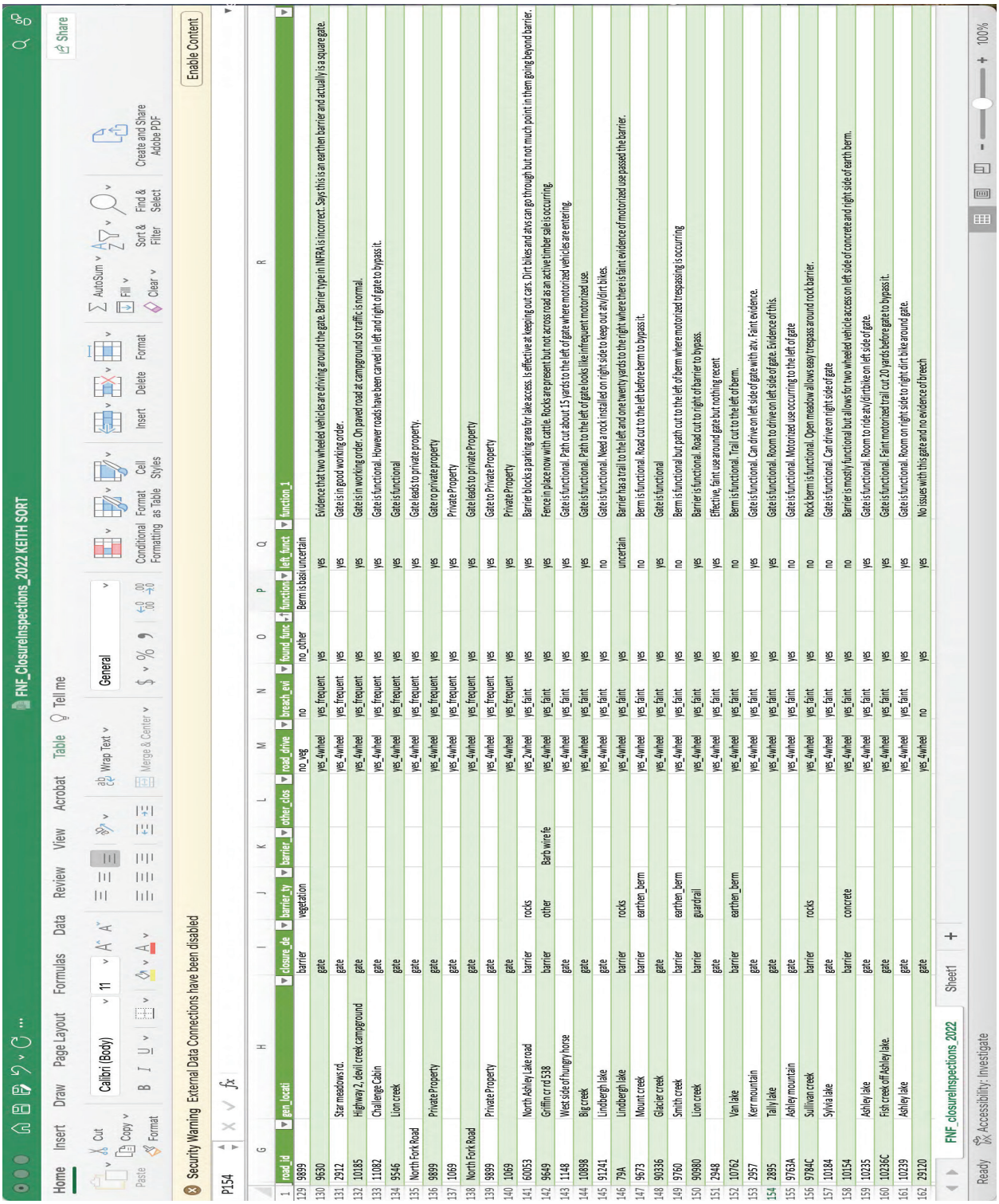
44. See note 24, spreadsheet for 2021.

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



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 going 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	917B	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	9873	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	Mutiple 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."

Appendix A

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: _____

Appendix B

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	

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
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

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
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

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
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

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
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?

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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