CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Spencer Trail Network Special Recreation Use License
Proposed Implementation Date:	May 2013
Proponent:	City of Whitefish
Location:	Spencer Lake area, Whitefish Township 30 North, Range 22 West, Sections 4, 5, 9, 15, and 16
County:	Flathead

I. TYPE AND PURPOSE OF ACTION

The Montana Department of Natural Resources and Conservation (DNRC) is considering a request by the City of Whitefish for a special recreation use license (SRUL) to authorize recreational use on State trust lands approximately 2.5 miles west-southwest of Whitefish, Montana for a multi-year period. The SRUL would set criteria for management of a trail network on State trust land that is unauthorized for the current recreational uses, unmanaged, has existing impacts to resources, and does not capture full revenue for the trusts.

The proposed SRUL would authorize recreational use for the City of Whitefish on approximately 16 miles of existing trails. The proposed SRUL would also authorize the construction and use of approximately 1.2 miles of new trail (including reroutes) and the improvement and use of two parking lots: 1) the “north” parking lot, which would be constructed from a log landing associated with the Spencer Lake North Timber Sale in Section 5 above Twin Bridges Road and 2) the current parking area in Section 15 on the "Rifle Range Road" (Figure 1). The existing unauthorized parking area adjacent to Twin Bridges Road would be immediately scaled down to limit resource impacts and would be authorized under this SRUL to serve as the only parking area at Twin Bridges Road until the log landing is eventually reconfigured for parking following the timber sale; it then would become the overflow parking for the north parking lot. This trail network, as authorized under the SRUL, would be known as the Spencer Trail Network (STN). The SRUL would authorize the improvement and maintenance of the STN by the City of Whitefish.

The land involved in this proposed SRUL is held by the State of Montana in trust for the Common Schools, School for Deaf and Blind, Montana Tech, State Normal School, MSU Billings, and University of Montana Western (Dillon) (Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11). The Board of Land Commissioners and the DNRC are required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run for the beneficiary institutions (Section 77-1-202, MCA). DNRC would manage the proposed SRUL under current regulations and restrictions guiding recreational use of State trust lands. The proposed action would also be consistent with the goals set forth by the Whitefish Neighborhood Plan (WNP).

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

The proposed SRUL evaluated in this checklist environmental assessment (EA) is a portion of a proposed land use authorization that was presented to the public for review in a scoping letter mailed to 329 interested parties on November 2, 2012. The land use authorization under consideration at that time included a land authorization for a trail network (as described in Alternative B in Section 3 below) and on a 400-acre area encompassing the trail network. Advertisements describing the proposed land use authorization as set forth in the scoping letter were run in the Whitefish Pilot on November 7 and 14, 2012 and in the Daily Interlake on November 11, 2012. A public comment period was open for that proposal

from November 2 through December 1, 2012. Seventeen comments were received. During the scoping period, the DNRC and the City of Whitefish modified the proposal to include a land use authorization for only a (generally) 16-foot corridor associated with the trail network. The City of Whitefish submitted the modified application for a land use license on November 9, 2012. Issues generated during public and internal agency scoping, as well as the DNRC response to these issues and/or location of the applicable discussion in this EA, are provided below in Table 1.

Table 1. Issues and Responses

Resource/Topic	Issue	Where Addressed in EA	DNRC Response
Demand for Govt. Services	How will the City of Whitefish afford to take care of this trail system now and in the future?	Section 18	Please see detailed information at cited location in document.
Economics	Public notice of any changes to the Spencer Mountain harvest prescriptions and a full discussion of how those changes may affect timber revenues to the affected trusts must be made before a license is granted.	See response	There would not be any changes to the Spencer Lake Timber Sale if the SRUL were granted. Public notice is not made to changes in a project unless those changes would result in substantial effects to resources that were not disclosed in the original disclosure document (e.g. EA) for the project.
Economics	No license should be granted unless the liability presented by present fuel loads is underwritten by the licensee.	See response	The SRUL would not require the City of Whitefish to underwrite present fuel loads because the fuel loads will be altered by the Spencer Lake Timber Sale which would coincide with the authorization of the SRUL. The DNRC is ultimately responsible for the timber resources on State trust land.

Resource/Topic	Issue	Where Addressed in EA	DNRC Response
Economics	An appraisal must be conducted on the Spencer Mountain subarea that includes impacts of a recreation license on the final harvest values of the Spencer timber sale, the full value of the trail right-of-way lease, plus any aesthetic buffer, at no less than the five percent of full value now in effect for cabin site leasing.	Section 24	The proposed authorization is a non-exclusive SRUL (not a lease) and is thus subject to a different fee policy than a lease (which would typically be for an exclusive use).The trusts would be compensated by the licensee for any trees not subject to harvest as disclosed in the license (gateway trees, anchor trees, etc.). The silvicultural prescription may be less intensive because of the issues associated with recreational use. The DNRC's goal is to offset the loss of net present value of the timber that would be otherwise cut with fees associated with this and similar recreational licenses. At an estimated 6.5 MMBF[1] (2.5 MMBF south and ~ 4 MMBF north) this sale would bring roughly $1.5 million to the trusts, and $255,000 in forest improvement fees. It is likely that the DNRC would reenter these stands within the next 10-20 years to conduct smaller scale regeneration harvests to re-establish a more natural age class distribution.
Economics	Per the WNP, management changes can happen after 10 years if substantial income has been generated. There has been no income generated attributable to the WNP. No license should be granted if the license in any way affects the prescriptions of the Spencer timber sale.	Sections 7 and 24	The DNRC will be conducting the Spencer Lake Timber Sale as planned, and timber harvest would continue in the area if the proposed SRUL were authorized.
Economics	Recreation, and recreation advocacy groups, should not be able to control the Spencer area at the expense of logging and the financial return to the trusts from logging.	See response	The DNRC will be conducting the Spencer Lake Timber Sale as planned, and timber harvest would continue in the area if the proposed SRUL were authorized.
Economics	The scoping map seems to delineate not just trails but an area, indicating some kind of management overlay that will affect the ability of these lands to produce revenue for the affected trusts.	Section1 See response	The map indicated by the respondent refers to the land use authorization as originally scoped (Section 1). This area was changed to be limited to trails with a buffer and the parking lots as described in Section 3 of this EA.

Resource/Topic	Issue	Where Addressed in EA	DNRC Response
Economics, Demand for Govt. Services	No license can be granted without a full accounting of who will assume liability for recreational use on the trails. These trails have already caused serious injuries. DNRC and taxpayers must be indemnified from any liability related to future injuries related to these trails and free-ride structures.	See response	The licensee (the City of Whitefish) would, under its insurance policy, be insured against claims and indemnify the State of Montana as the licensor. The City and State also have statutory liability protection under MCA 70-16-302.
Health and Safety	The land use license should be granted to make the existing trails safer.	Section 14	Please see detailed information at cited location in document.
Health and Safety	The improvements and rehabilitation of the trail system will encourage increased trespass onto adjacent State and private lands.	Section 14	Please see detailed information at cited location in document.
Health and Safety	Improving access for emergency vehicles is critical to the health and safety of those recreating on Spencer Mountain.	Section 18	Please see detailed information at cited location in document.
Health and Safety	The project would result in an increased use of the free-ride mountain biking trails and structures, which could result in increased risk of injury.	Section 14	Please see detailed information at cited location in document.
Out of Scope	The Legacy Lands Advisory Committee and/or the Whitefish Trail Operations Committee do not adequately involve the DNRC, which ultimately has responsibility for the Trust land.	See response	This item is not within the scope of this analysis.
Out of Scope	Although the Legacy Lands Advisory Committee and/or the Whitefish Trail Operations Committee were authorized by the Whitefish City Council as official city committees, neither is listed on the Whitefish City website as a city committee, with posted agendas and minutes available to the public as required by Montana law (MCA 2-3-212).	See response	This item is not within the scope of this analysis.
Out of Scope	A separate EA should be prepared for the Spencer Mountain area, coordinating with the Forest Service and other land managers, to assess recreation opportunities that either already exist in the Flathead or are needed.	See response	This item is not within the scope of this analysis.

Resource/Topic	Issue	Where Addressed in EA	DNRC Response
Proposed Action	Will there be a parking lot located off the DNRC Rifle Range Road for southern trails? If so, how large will it be and who will be responsible for the maintenance of the parking lot and the road?	Section 3	A parking lot (that would support horse trailer parking) would be provided for on the "Rifle Range Road" (there is already an existing parking area in the location). The City of Whitefish would be responsible for the parking lot as it would for the other, but the DNRC would only be responsible for maintenance of the road commensurate with its use; that is, if DNRC uses the road for forest management, DNRC would maintain it accordingly. All other maintenance would be the responsibility of the lessee, licensee and homeowners, commensurate with their use.
Proposed Action	Establish clear criteria and guidelines for determining which previously unauthorized “free-ride” bicycle features will be removed, retained, or reconstructed to protect public resources and public safety on Spencer Mountain.	Section 3	Please see detailed information at cited location in document.
Proposed Action	Failing to conduct appropriate harvest will have stand health, fuels management, and fire safety effects as long as those trees remain.	See response	The DNRC will be conducting the Spencer Lake Timber Sale as planned, and timber harvest would continue in the area if the proposed SRUL were authorized.
Proposed Action	The implementation timeline for Spencer in the WNP states the subarea "would continue to be managed by DNRC as a timber and recreational asset for a minimum of the next 10 years" (November 2014), during which the community would have an "opportunity to develop and submit a proposal." This proposal should not interfere with timber management per the WNP.	See response	The DNRC will be conducting the Spencer Lake Timber Sale as planned, and timber harvest would continue in the area if the proposed SRUL were authorized.
Proposed Action	No license should be granted that affects the Spencer Lake Timber Sale	See response	The DNRC will be conducting the Spencer Lake Timber Sale as planned, and timber harvest would continue in the area if the proposed SRUL were authorized.

Resource/Topic	Issue	Where Addressed in EA	DNRC Response
Proposed Action	The TRTI Master Plan states “defined play areas” for equestrian or motorized use should be considered so they are separate from but integrated into the main trail. The free-ride biking trails should be separate from the rest of the trail system.	Section 15	At this time the DNRC is not contemplating including “defined play areas” within the license area. A comprehensive signage plan will be used to inform all users of which trails are best suited for horse, biking, free-riding, and hiking. More specific separation of commercial equestrian use would be considered under the analysis for renewing commercial equestrian authorizations.
Proposed Action	The trail group must post the private land (and relocate the trail) so as not to promote trespassing on private lands in the SW corner of Section 10.	Section 3	Please see detailed information at cited location in document.
Proposed Action	Who will be responsible for the trail maintenance and monitoring?	Section 3	The City of Whitefish would be responsible.
Proposed Action	The proposed SRUL must allow for non-commercial uses.	Section 3	The proposed SRUL would allow for non-commercial uses.
Proposed Action	The proposed SRUL has too much room for error and the plan needs to have more detail, such as how the City will accomplish and comply with what they have agreed to.	See response	The SRUL, and the associated Trail Guidelines and Trail Management Plan include adequate detail to ensure compliance with license requirements.
Public Involvement	Request to stay on mailing list.	See response	Those responding to the scoping notice and those requesting to be on the mailing list will be notified when this EA is available for public review.
Public Involvement	There has been a lack of public notice regarding actions on State land.	Section 1	Please see detailed information at cited location in document.
Recreation	Supports the enhancement and development of trails and recreation through land use license in the Spencer area.	See response	Noted.
Recreation	Support Whitefish Legacy Partners trails, recreation and land licenses south of Highway 93 in the Spencer Mountain area	See response	Noted.
Recreation	This is an opportunity to support a well-organized effort to ensure multiple uses of public trails that are compatible with one another.	Section 20	Noted.
Recreation	Spencer is an area that is utilized by local mountain bikers frequently and is a destination for out of town visitors; therefore, it should be maintained for these uses.	Section 20	Noted.

Resource/Topic	Issue	Where Addressed in EA	DNRC Response
Recreation	There is enough user demand in the Flathead Valley for trails for horseback riders, hikers, and mountain bikers to justify the proposed SRUL.	Section 20	Noted
Recreation	Snowmobiling must continue to be allowed.	Section 20	Snowmobiling would continue to be allowed.
Recreation	Will recreation only be allowed on roads on State land outside of the proposed SRUL area, or will unauthorized trail building continue on trails outside of the proposed SRUL?	Figure 1 and Section 20	This SRUL would authorize recreational use to the City of Whitefish on trails shown on Figure 1 of this EA. Unauthorized trail building may occur outside of a licensed area; this would be addressed by the DNRC if it occurs.
Recreation	Public recreational use of state lands is well-established as an acceptable use so long as it is consistent with the State's proper management and use of the land for the benefit of trust beneficiaries.	Section 24	Noted.
Recreation and Access	Hunting on State land must be maintained.	See response	Hunting would be allowed within the STN during applicable hunting seasons and according to Montana State statutes and rules.
Soils	Severe erosion has occurred that must be corrected with features such as water bars on the trails.	Section 4	Please see detailed information at cited location in document.
Soils	The project would increase use of the trail system, which would exacerbate current erosion on some sections of trail.	Section 3	Please see detailed information at cited location in document.
Transportation and Access	The project would result in increased use of the Twin Bridges Trail Network, and parking would become more congested.	Section 18	Please see detailed information at cited location in document.
Vegetation	Forest management in the Spencer area must be a priority before recreation because there is currently a high wildfire risk that must be addressed.	Section 7	The DNRC will be conducting the Spencer Lake Timber Sale as planned, and timber harvest would continue in the area if the proposed SRUL were authorized.
Vegetation	Preparing area for expanded/improved recreation might leave increased dead debris.	Section 7	A minor amount of vegetation debris would be created by the reroute of 1.2 miles of trail. This debris would be removed if necessary. The debris created by the clearing of the log landing (north parking lot under the proposed SRUL) would be cleaned up according to the State's slash hazard reduction law[3] adhered to as part of the Spencer Lake Timber Sale.
Vegetation	Project needs to maintain and restore old growth forest.	Section 7	There is no old growth in the proposed SRUL area.

Resource/Topic	Issue	Where Addressed in EA	DNRC Response
Vegetation, Health and Safety	Increased recreational use of the Spencer Mountain area will increase the wildfire risk; therefore, a wildfire mitigation plan must be established. Increased wildfire risk can be mitigated by strategic fuels reduction projects, removal of dead debris caused by recreation, proper signage and monitoring, and improved access to the area for emergency vehicles.	Section 7 and 14	Please see detailed information at cited locations in document. There are no changes to emergency vehicle access proposed as part of the SRUL.

[1] MMBF = million board feet
[2] Control of Timber Slash and Debris, MCA Title 76, Chapter 13, part 4

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

An approach permit would be obtained from the Flathead County Road Department for the parking lot off Twin Bridges Road. If vault toilets are installed at STN parking lot(s) in the future, a sanitary sewer permit would be required from the Flathead City-County Health Department.

3. ALTERNATIVES CONSIDERED:

No Action Alternative A:

Under No Action Alternative A, the DNRC would not authorize a SRUL for the City of Whitefish for recreational use on the existing trail network. Recreation would continue on the current unauthorized trail network. Recreation on the trail network would likely generally increase in conjunction with continued increase in Whitefish-area growth. The DNRC would continue to generate revenue from commercial timber harvest, the sale of general recreation use permits, and current and future land use authorizations, but would not generate revenue from the trail network from the City of Whitefish.

Proposed Action Alternative B:

Under Proposed Action Alternative B, the DNRC would authorize a multi-year SRUL for the City of Whitefish on existing and new trails (including reroutes) located on State trust lands south of Spencer Lake near Whitefish (Figure 1). Compliance with the recreation and revenue goals of the WNP and portions of the Trail Runs Through It (TRTI) Master Plan (Applied Communications 2006) would be achieved. The Trail Management Plan is included as Appendix A.

The SRUL would specifically authorize the following:

- improvements and maintenance of approximately 15 miles of existing trails and technical trail features (TTFs) (16-foot corridor, widened as necessary to accommodate ride-arounds and fall zones);
- construction of 1.2 miles of new trail (including reroutes) according to International Mountain Biking Association standards (IMBA 2004) and the Spencer Lake Free-ride Trail Guidelines (Appendix B) to complete the developed recreation system trails;
- decommissioning of 1.3 miles of existing trail;
- routine maintenance activities on the trail network;
- placement of trail signs to provide for multiple user experience on the trail network;

- improvement and maintenance of a future log landing area associated with the Spencer Lake North Timber Sale to standards that would support a recreation parking lot at the Twin Bridges Road parking area;
- improvement and maintenance of a current parking area on Rifle Range Road to standards that would support a second recreation parking lot (south parking lot) on Rifle Range Road;
- improvement and maintenance of the existing (currently unauthorized) parking area on Twin Bridges Road for temporary use as the primary parking lot and permanent use as overflow parking;
- development of trailhead facilities as deemed necessary and as approved by DNRC at both the north and south parking lots.
- reconstruction and maintenance of mountain biking "free-ride" infrastructure (TTFs) to meet Spencer Lake Free-ride Trail Guidelines (Appendix B); and
- weed management within the SRUL area for weeds attributable to the licensed activities in the SRUL.

The activities associated with Alternative B would occur prior to and during the Spencer Lake Timber Sale (North and South), which would occur on approximately 1,650 acres of forest land that contain the proposed SRUL area (DNRC 2011a).

Alternative B would include activities to improve the current unauthorized parking area and trails to reduce soil erosion, reduce or eliminate water quality impacts to Spencer Lake and the stream that drains Spencer Lake, and improve the safety of the trail system and free-ride infrastructure. These activities include:

Parking

- Eliminate parking within 50 feet of the stream adjacent to the currently unauthorized parking area (the streamside management zone [SMZ]) and within the Twin Bridges Road ROW (30 feet from the centerline of the road) by installing barriers; revegetate closed area to provide sediment filter; and
- improve the surface and drainage of the Spencer Lake North Timber Sale log landing (after logging is completed) and the current parking area off Rifle Range Road to standards that would support recreation parking lots at these two locations; improvements would include final shaping, blading, and surfacing to establish the finished parking areas.

Trails

- construct 0.75 mile of new connector trail;
- reroute trails that are imposing resource damage/safety hazard or currently trespass on neighboring private property (0.45 mile);
- repair or improve free-ride structures and TTFs on all trails to standards identified in the Spencer Lake Freeride Trail Guidelines (Appendix B) which was developed by FFT in conjunction with the DNRC;
- remove free-ride structures that cannot be brought up to standards;
- reclaim unnecessary trail braiding and leave only the route and necessary ride-arounds; construct ride-arounds if necessary to comply with safety standards;
- provide adequate drainage on all trails; and
- ensure trail construction and maintenance are completed to ensure existing drainage features continue to convey runoff and sediment appropriately (Appendix B).

Under Alternative B, trails that are imposing resource damage/safety hazards or currently trespass on neighboring private property (0.45 mile) would be rerouted and unnecessary trail braiding would be removed. Only the main route and necessary ride-arounds would be left, and additional ride-arounds would be constructed as necessary to comply with safety standards. Specific trail prescriptions (Appendix A) are depicted on Figure 2 and include, in approximate order of priority:

1. Maple Syrup (upper and lower) (Trail 5, Figure 2)

   Maple Syrup includes several small wooden bridges to reconstruct to be compliant with the guidelines in Appendix B. Fall zones appropriate to the TTFs as described in Appendix B would also be constructed. The trail includes several steep pitches where drainage and erosion issues would be addressed. This may include water bars, channeling, installing armoring, or rerouting. The trail also has a section of braided trail at the bottom of upper Maple Syrup. An adequate "primary" route would be selected, and alternate braids would be decommissioned. The bottom of Maple Syrup would be rerouted, which is discussed in #2 below.

2. Otter Pop (Trail 3, Figure 2)

   A portion of Otter Pop currently trespasses onto private property. This section would be rerouted onto State land, and the former trespass section of trail would be decommissioned. The new section of trail would be constructed in a manner that is consistent with the "advanced" designation for the trail.

   Otter Pop also features several sections of braided trail. The "primary" trail would remain open, while braids would be decommissioned. The trail also has several substandard wooden features that would be removed and replaced with standardized wooden or dirt features. Some wooden features may be braced or otherwise reconstructed to bring them into compliance. Fall zones would be created around the various TTFs on the trail. The dead-end spur trail (Figure 2) would also be decommissioned and the associated TTF dismantled. A reroute at the bottom of Otter Pop and Maple Syrup would be constructed. Otter Pop currently "T's" into lower Maple Syrup, and both trails then funnel into the skidder trail that runs to the current unauthorized parking area. Maple Syrup and Otter Pop would be rerouted as shown on Figure 2. The rerouted portion of the trail would be consistent with the "intermediate" difficulty of Maple Syrup.

3. East Side Connector Trail Trespass (Connector Trail, Figure 2)

   A portion of the Connector Trail trespasses onto private property. This section would be rerouted onto State land, and the former trespass section would be decommissioned.

4. Decommission "steep" skidder trail from current unauthorized parking area

   The skidder trail that runs directly up the fall line from the parking area would be decommissioned at the time the log landing/new north parking area is created and after a replacement trail with more suitable grade and drainage is constructed.

5. Decommission No Bikes (Trail 12, Figure 2)

   The No Bikes trail would be decommissioned.

6. Build reroute on Lookout trail (Trail 9, Figure 2)

   A reroute involving a number of switchbacks would be built on the Lookout trail that leads to the upper-most point of the free-ride trail system. The purpose of this reroute is to address the steep and heavily eroded trail that currently exists. Upon completion of this reroute, the former trail would be decommissioned.

7. Flow Factory (Trail 4 and 4a, Figure 2)

   The TTFs found on Flow Factory would be brought into compliance. This would primarily involve soil and rock work, as there are relatively few wooden features on this trail. The bottom portion of Flow Factory features a steep, eroded trail that would be rerouted.

8. Spooky Pete's (Trail 2, Figure 2)

   Spooky Pete's features numerous wood features that would be brought into compliance with the guidelines in Appendix B. All TTFs have prominent and well-developed ride-arounds. As such, individual TTFs may be closed rather than closing the trail in its entirety. Some ride-arounds and fall zones may need to be cleared of debris. Some unavoidable bridges would require reconstruction to bring them into compliance prior to the opening of any portion of the trail. Some steep sections would require attention to drainage and erosion issues. Water bars, channeling, or rock armoring may be used. The bottom intersection with the East Side road requires a small reroute to minimize trail user conflicts. This reroute would be completed prior to opening the trail.

9. Recess (Trail 6, Figure 2)

   The TTFs found on Recess would be brought into compliance with the guidelines in Appendix B. Aside from some clearing for fall zones, it is anticipated that this would primarily involve soil and rock work, as there are relatively few wooden features on this trail. The bottom portion of Recess features a steep, eroded trail that would be rerouted. Temporary drainage features would be built on this steep section to minimize erosion pending the reroute.

10. Malice in Plunderland (Trail 1, Figure 2)

    The TTFs found on Malice in Plunderland would be brought into compliance and ride-arounds and fall zones would need to be constructed. Numerous wooden features would need to be braced and/or reconstructed. Once ride-arounds are constructed, the trail may be opened with individual TTFs remaining closed pending standardization with the guidelines in Appendix B.

    The bottom portion of the trail would require a substantial reroute which must stay at least 50 feet (the SMZ) from Spencer Lake and its outflow. This trail would, as best as possible, maintain the "expert" character of Malice in Plunderland. Ride-arounds would be built as necessary on this trail. The trail would lead to the area of the North timber sale log landing. Once the reroute is completed, the bottom portion of Malice in Plunderland would be decommissioned.

The improvements and maintenance described above would occur at the expense of the licensee. DNRC would retain the fee title to and overall management of the proposed SRUL area and would continue to manage the land for commercial timber and resource conservation, general recreational use, and for current and future land use authorizations. Approximately 8.3 miles of the STN would be shared (stacked) with the current equestrian (horseback riding) SRUL authorizations.

All future timber harvest proposals would be analyzed in separate EAs; therefore, the effects of future timber harvest (other than the Spencer Lake Timber Sale) are not discussed further in this checklist EA.

Action Alternative C:

Under Action Alternative C, the DNRC would not authorize a SRUL for the requested trail use authorization but would remove all of the unauthorized free-ride structures, decommission excessively steep sections of trail, and remove trail that has trespassed on private property. The DNRC would not maintain or improve the trail network in the future except to ensure unauthorized trail features were removed, eroding trails were decommissioned, and trails do not encroach on private land. DNRC would

continue to generate revenue from timber harvest, the sale of general recreation use permits, and current and future land use authorizations.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable, or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Existing Environment:

The surficial geology of the proposed SRUL area consists of carbonate rocks, meta-argillite, and quartzite of the Belt Supergroup (USGS 2012). There are no unusual geologic features associated with the proposed SRUL area.

The majority of the proposed SRUL area is located on landtype Wzh (Whitefish stony silt loam), which consists of glaciated hillsides with 12 to 45 percent slopes. The soils associated with this landtype are derived from calcareous glacial till, and are typically well-drained (NRCS 2012). These soils support a variety of forest vegetation types. The *K value* of a soil indicates how susceptible the soil is to sheet and rill erosion by water. The K value of soil in this landtype is 0.20, which indicates that the soils on the proposed SRUL area are moderately susceptible to water erosion (NRCS 2012). There are no fragile or unstable soils on the proposed SRUL area.

The proposed SRUL area soils have been disturbed by past timber harvest and recreation. Field reconnaissance of the proposed SRUL area indicates approximately 16 miles of primarily unauthorized user-constructed single track recreation trails serviced by approximately 10 miles of DNRC road. Much of the existing road is currently being used as recreation trails by hikers, mountain bikers, and horseback riders. These roads and trails are severely compacted from recreational use. These roads and trails represent 52 acres that, in general, do not have long-term forest productivity (DNRC 2011a). An estimated 1.2 acres is taken out of production for every one mile of trail (DNRC 2011a).

Several sections of trail, especially steep sections situated in gullies, are actively eroding due to their development prior to current trail development standards (IMBA 2004). Much of the existing trail in the proposed SRUL area was poorly sited, poorly constructed, and has a lack of adequate drainage. Poor drainage and erosion was also observed on sections of trail immediately adjacent to Spencer Lake.

The unauthorized parking area for the existing trail network is highly eroded and damaged (potholes), and does not have adequate construction or drainage. The erosion is occurring within 10 feet of the outlet stream from Spencer Lake. Information pertaining to sediment delivery to surface water is provided in Section 5.

Direct and Indirect Effects[1]:

No Action Alternative A:

There would not be any trail improvements. The erosion on some sections of trail would continue, and would be exacerbated with general increased use of the trail network. New unauthorized trails may be

[1] Unless otherwise noted, the direct, indirect, and cumulative effects analysis area used in this document is the proposed SRUL area.

constructed. The log landing associated with the Spencer Lake Timber Sale would not be improved for use as a parking lot, and would be allowed to revegetate after the timber sale is complete.

The unauthorized parking area on Twin Bridges Road would continue to be a sediment source to the outlet of Spencer Lake (Section 5) until work on this parking area is completed under the Spencer Lake Timber Sale currently planned for 2015 (DNRC 2011a). Portions of trails that are within the SMZ, such as that adjacent to Spencer Lake, would be decommissioned but would not be rerouted.

Proposed Action Alternative B:

Severely eroded sections of trail would be either decommissioned or drainage and armoring features installed to improve stability and reduce erosion. Monitoring of the trails would be conducted annually. Minor soil erosion would occur after mechanical ripping of soil on decommissioned trails before vegetation was reestablished. This effect would be temporary and would not affect surface water. The only trail decommissioning that would occur near surface water would be immediately south of Spencer Lake. Sections of trail within the 50-foot SMZ for Spencer Lake would be rerouted and the former trail decommissioned. Temporary sediment controls (such as silt fence) would be installed until vegetation was reestablished.

The log landing above the current parking area that would be constructed as part of the Spencer Lake North Timber Sale and the current parking area off Rifle Range Road would be improved for use as parking lots during the term of the SRUL; therefore, there would not be any soil productivity in these locations for the time the SRUL was in effect. These parking lots would have adequate surfacing and drainage to support recreational parking. The existing unauthorized parking area would be improved with adequate drainage and surfacing to support temporary use as the primary parking lot and permanent use as overflow parking and the current sediment delivery to the Spencer Lake outlet would be reduced or eliminated. Alternative B would result in a moderate to major beneficial effect to soils within the proposed SRUL area.

Similar to the other trails that have been constructed by the City of Whitefish, the 1.2 miles of new trail would be constructed and maintained according to IMBA standards and principles (IMBA 2004) and according to the Spencer Lake Freeride Trail Guidelines (Appendix B). While bared soil and increased use typically results in additional erosion and wear, proper design and maintenance coupled with the well-drained soil would reduce the potential erosion related to the new trail segment to a negligible to minor effect. The new 1.2 miles of trail would be offset by reclamation of 1.3 miles of trail; therefore, there would be a negligible net gain in soil production within the proposed SRUL area related to trails.

Action Alternative C:

The effects of Alternative C on soils would be similar to those under Alternative A, except severely eroded sections of trail or that within the SMZ would be decommissioned. No new trail would be constructed.

Cumulative Effects:

No Action Alternative A:

Without DNRC management, unauthorized trail construction would likely continue depending on how DNRC addresses illegal trail building; illegal trail construction would likely occur without utilizing standards and features to reduce erosion. Therefore, future unauthorized trail construction and continued trail use, in conjunction with Alternative A, would cumulatively increase soil erosion in the proposed SRUL area.

Proposed Action Alternative B:

Alternative B would not cumulatively affect soil productivity appreciably within the project area for the Spencer Lake Timber Sale, because the net gain is negligible. There would not be any cumulative effects to soil erosion potential, because the Spencer Lake Timber Sale would incorporate best management practices (BMPs) and other mitigations to minimize soil erosion to a low risk, and Alternative B would

have an overall reduction in soil erosion because trails would be either improved to reduce erosion or decommissioned, and the existing parking area would be improved to reduce erosion.

Action Alternative C:

Similar to Alternative A, unauthorized trail construction would likely continue after the DNRC decommissions excessively steep, eroding trail; illegal trail construction would occur without utilizing standards or features to reduce erosion. The DNRC would periodically remove future trail that was excessively steep and/or causing excessive erosion. Therefore, future unauthorized trail construction, in conjunction with Alternative A, would cumulatively increase soil erosion in the proposed SRUL area but to less of an extent as Alternative A.

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5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Existing Environment:

The proposed SRUL area is adjacent to the south shore of Spencer Lake. Spencer Lake is a perennial water body with a seasonal outlet that flows towards the Stillwater River. This seasonal outlet is the only intermittent stream within the proposed SRUL area. During much of the year, the stream is dry a short distance below the Twin Bridges Road. During spring runoff, this stream carries water, but due to a dam on private land, direct connectivity to the Stillwater River is unlikely (DNRC 2011a). There are no perennial streams within the proposed SRUL area.

Because surface water is limited in the proposed SRUL area, the current sediment delivery to surface water from sediment sources is also limited. However, direct sediment delivery to the Spencer Lake outlet stream from the existing unauthorized parking area is occurring. Much of the parking area is within 50 feet of the stream and, in some instances, as close as 10 feet from the stream. Vegetation is present between the parking area and stream; however the proximity to the stream, the poor condition of the parking area, and the volume of use suggests that some sediment is delivered. Also, trails located adjacent to Spencer Lake are within 10 feet of the stream and/or lake in some cases, and poor trail condition is contributing sediment to these surface waters.

Direct and Indirect Effects:

No Action Alternative A:

Except for the decommissioning of trail within the SMZ (as part of the Spencer Lake Timber Sale), there would not be any trail improvements to reduce erosion. The unauthorized parking area would continue to be a sediment source to the outlet of Spencer Lake (Section 5) until work on this parking area is completed under the timber sale.

Proposed Action Alternative B:

Under Alternative B, the sediment sources to the Spencer Lake outlet and Spencer Lake would be removed. Parking would be eliminated within the SMZ for the outlet, and the SMZ would be revegetated to provide a sediment filter. Drainage would be installed. All trail within the SMZ would be rerouted and decommissioned. Minor soil erosion would occur after mechanical ripping of soil on decommissioned trails before vegetation was reestablished. This effect would be temporary and would not affect surface water. The only trail decommissioning that would occur near surface water would be immediately south of Spencer Lake, and temporary sediment controls (such as silt fence) would be installed until vegetation was reestablished. Alternative B would result in a moderate beneficial effect to water quality.

Action Alternative C:

The effects to water quality under Alternative C would be similar to those under Alternative A.

Cumulative Effects:

No Action Alternative A:

There would not be any trail improvements to reduce erosion. The unauthorized parking area would continue to be a sediment source to the outlet of Spencer Lake (Section 5) until work on this parking area is completed under the Spencer Lake Timber Sale. There is a minimal risk of water quality effects due to the Spencer Lake Timber Sale (DNRC 2011a); therefore, there would be a minimal risk of cumulative effects to water quality under Alternative A.

Proposed Action Alternative B:

There is a minimal risk of water quality effects due to the Spencer Lake Timber Sale (DNRC 2011a); therefore,
there would be a minimal risk of cumulative effects to water quality under Alternative B.

Action Alternative C:

There is a minimal risk of water quality effects due to the Spencer Lake Timber Sale (DNRC 2011a); therefore,
there would be a minimal risk of cumulative effects to water quality under Alternative C.

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6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Existing Environment:

The proposed SRUL area is not located in a Class I airshed (those airsheds that can accommodate only the smallest amount of air quality degradation - National Parks, wilderness areas and reservations). The town of Whitefish is a designated nonattainment area for particulate matter of 10 microns (PM-10) or less (NRIS 1998). The proposed SRUL area is not located within the boundaries of the Whitefish non-attainment area.

Temporary and localized reductions in air quality within the proposed SRUL area may occur in the summer and fall during dry conditions. These reductions in air quality are due mostly to road dust generated by motorized residential and recreational traffic on native surface roads and trails. Vehicle traffic on Highway 93, which accesses the existing trail network, is relatively heavy, and therefore generates air quality impacts. Rifle Range Road is a lightly used, native-surfaced road.

Direct and Indirect Effects[2]:

No Action Alternative A:

Under Alternative A, the existing trail network would likely continue to experience increased recreational use due to Whitefish-area growth. There would be a corresponding increase in dust from future increased use of existing trails during dry conditions, which would be a negligible effect to air quality under Alternative A. Traffic increases to the existing trail network would increase consistent with Whitefish-area growth which could negatively affect air quality, but these changes due to Alternative A alone would not cause noticeable effects on traffic-related air quality on Highway 93 above existing levels.

[2] The direct, indirect, and cumulative effects analysis area for air quality is the proposed SRUL area, Highway 93 between Whitefish and Twin Bridges Road, and Rifle Range Road.

Proposed Action Alternative B:

As a result of the improvements to the trails and their management by the City of Whitefish, the roads to the trailheads and parking lots may see increased traffic, above that which would occur under Alternative A. Similar to Alternative A, changes in traffic due to Alternative B alone would not cause noticeable effects on traffic-related air quality on Highway 93 above existing levels. The traffic may also increase on Rifle Range Road due to the improvement of the current parking area to accommodate horse trailer parking, which would decrease air quality on this native surface road during dry periods; however, the increase in traffic, and therefore the decrease in air quality, would be negligible because this parking lot would see much less use than the parking lot off Twin Bridges Road/Highway 93.

Effects related to the initial trail improvements, construction, and parking improvements are expected to be temporary and minor, with dust being released during corresponding periods of soil disturbance. Once the STN becomes an authorized trail network managed by the City of Whitefish, recreation traffic on the trails could increase over time as public awareness and use of the developed recreation within the proposed SRUL area increases. When conditions are dry, such as the summer months, use of the unpaved trails and parking lots would cause dust to be released from the trail or parking lot surface, which would be a temporary, minor effect on air quality (greater than that under Alternative A).

Action Alternative C:

The effects to air quality under Alternative C would be similar to that under Alternative A.

Cumulative Effects:

No Action Alternative A:

Road traffic on Highway 93 would be expected to cumulatively affect air quality in conjunction with Alternative A, Whitefish-area growth, and the expansion of recreational opportunities off of Highway 93 in the Beaver-Skyles and Lupfer areas west of Whitefish (Section 13). Activities that may potentially affect air quality related to the Spencer Lake Timber Sale, such as log hauling/other project traffic on native surface roads and slash burning, would not occur during conditions that would also result in increased dust from trails (i.e. slash burning doesn't occur during dry summer months); therefore, there would be minimal risk of cumulative effects to air quality related to the timber sale under Alternative A.

Proposed Action Alternative B:

The cumulative effects to air quality related to road traffic would be similar to those under Alternative A. Activities that may potentially affect air quality related to the trail and parking improvements under Alternative B would not result in cumulative effects related to the Spencer Lake Timber Sale, because those project activities would not occur at the same time as improvements related to Alternative B.

Action Alternative C:

The cumulative effects to air quality would be similar to those under Alternative A and B.

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7. VEGETATION COVER (NOT SPECIAL STATUS), QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Existing Environment:

Vegetation in the proposed SRUL area is dominated by forest types commonly found in western Montana at elevations between 3,100 to 3,900 feet. All aspects are represented. The primary tree species are Douglas-fir (*Pseudotsuga menziesii*), western larch (*Larix occidentalis*), and ponderosa pine (*Pinus ponderosa*). Other tree species include lodgepole pine (*Pinus contorta*), grand fir (*Abies grandis*), Engelmann spruce (*Picea engelmannii*), western white pine (*Pinus monticola*) and western red cedar (*Thuja plicata*). These trees have been affected by insects and disease, including western larch dwarf

mistletoe (*Arceuthobium laricis*), Douglas-fir bark beetle (*Dendroctonous pseudotsugae*), fir engraver (*Scolytus ventralis*), and armillaria root disease (*Armellaria ostoyae*). Some individual trees have been incorporated into illegally maintained free-ride structures on trails and have sustained damage.

There are no stands characterized as old growth on the proposed SRUL area (DNRC 2011a). There are no special status plant species within the proposed SRUL area.

The understory is dominated by low-growing shrubs and herbaceous species, including ninebark (*Physocarpus malvaceus),* snowberry (*Symphoricarpos albus*), dwarf huckleberry (*Vaccinium caespitosum*), kinnikinnick (*Arctostaphylos uva-ursi*), pinegrass (*Calamagrostis rubescens),* Oregon grape (*Mahonia repens*), and buffaloberry (*Shepherdia canadensis*).

Noxious weeds have been identified on the proposed SRUL area and along access routes to the proposed SRUL area, including spotted knapweed (*Centraurea maculosa*), St. John's-wort (*Hypericum perforatum*), oxeye daisy (*Chrysanthemum leucanthemem*), common tansy *(Tanacetum vulgare),* hound's-tongue *(Cynoglossum officinale),* and orange hawkweed (*Hieracium aurantiacum*). Their prevalence on the proposed SRUL area is low. The DNRC identifies and plans treatment of noxious weed populations as necessary to meet standards established by the State Forest Land Management Plan (SFLMP) (DNRC 1996) and abide by the Montana County Noxious Weed Management Act (MCA 7-22-2101).

Direct and Indirect Effects:

No Action Alternative A:

Without DNRC management, unauthorized trail construction may continue under Alternative A depending on how DNRC addresses unauthorized trail building in the future. The effects to vegetation could include unmanaged clearing of understory for unauthorized trails, removal of trees, construction of free-ride structures directly to trees with associated damage, trampling, and increased chance of human-caused fire. Future increased use of the existing trail network would increase the spread of noxious weeds. The DNRC would continue to be responsible for treatment of noxious weeds within the proposed SRUL area.

The portion of the current unauthorized parking area and trail within the SMZ would be decommissioned under the Spencer Lake Timber Sale, and the SMZ would be allowed to revegetate. The timber sale would reduce the fuel loads within the proposed SRUL area, which would mitigate much of the increased risk of wildfire associated with Alternative A.

Proposed Action Alternative B:

Under Alternative B, revegetation would occur on decommissioned trails and on the portion of the unauthorized parking area that would be decommissioned. Under Alternative B, activities such as pruning trees, removing downfall and hazardous trees, and clearing new trails of ground cover would directly affect vegetation. Clearing for new trails would occur in a narrow swath (approximately 4 feet wide) on 1.2 miles of new trail, but revegetation would occur on 1.3 miles of decommissioned trail. This would result in a negligible effect on vegetation within the proposed SRUL area. Managing the STN under the SRUL would lead to identification and reclamation of problem areas on existing trails, as well as increased public information that would provide details on how to use the trail responsibly in order to reduce the spread of noxious weeds, unauthorized trails, and human-caused fire (Section 14). With the proposed increase in management, the trails may become more confined and better maintained, therefore mitigating potential negative effects to vegetation. The DNRC would continue to manage the proposed SRUL area under all of its current rules and regulations, including those guiding forest management.

The City of Whitefish would be required to meet noxious weed management standards established by the SFLMP and abide by the Montana County Noxious Weed Management Act and control noxious weeds within the proposed SRUL area. DNRC would approve the method of control with the minimum

requirement being a spring treatment of weeds in the trail corridors during the rosette stage by a certified applicator. Only certified weed seed free hay may be used on the licensed area, but increased use by horseback riders from outside the area could increase the spread of noxious weeds depending on the extent that horses using the trails have consumed hay or vegetation that is not weed seed free. The increase of noxious weed establishment and spread would be a negligible to minor effect.

Action Alternative C:

The effects to vegetation would be similar to those under Alternative A.

Cumulative Effects:

No Action Alternative A:

In addition to the effect of ongoing recreational use of roads and unauthorized trails in the proposed SRUL area, past harvesting and road construction in the area have resulted in effects to vegetation including additional weed infestations and removal of forest acreage to become part of a road system. The Spencer Lake Timber Sale is planned in the area of the proposed SRUL, which has been designed to have a positive effect on forest growth, vigor, and desired species mix. Additional areas of exposed soil would be created by this project and would increase the risk of noxious weeds. Increased treatment of noxious weed populations is often implemented with timber sale projects, greatly offsetting the effect, or actually providing a net benefit.

There are two current SRULs for commercial horseback riding on the trail network; these two SRULs will be up for renewal in the future, which will be analyzed in separate EAs. The current and future commercial SRULs for commercial horseback riding, in conjunction with the future increased use of the trail network with no change in DNRC management, represents a cumulative increase in the threat of spread of noxious weeds.

Proposed Action Alternative B:

Potential cumulative effects to vegetation include increased opportunity for the spread of weeds since recreational use of the STN could increase. There would likely be an increase in cost and time on managing current and future timber sales in the area, given the complications of arranging logging activities around a recreational corridor. Past harvesting and road construction in the area have impacted vegetation by allowing the spread of weeds and removing some acreage from forest to become part of a road system. The Spencer Lake Timber Sale is planned in the area of the proposed SRUL, which has been designed to have a positive effect on forest growth, vigor, and desired species mix. In addition, the timber sale would reduce fuel loads within the proposed SRUL area, which would reduce the risk of wildfire cumulatively with the signage and education associated with Alternative B. Additional areas of exposed soil would be created by this project and would increase the risk of noxious weeds. Increased treatment of noxious weed management is often implemented with timber sale projects, greatly offsetting the effect.

Similar to Alternative A, there would be a cumulative increase in the threat of noxious weed spread due to commercial horseback riding SRULs. However, under Alternative B this cumulative effect would be less because managing the STN under the SRUL would lead to identification and reclamation of problem areas on existing trails, as well as increased public information that would provide details on how to use the trail responsibly in order to reduce the spread of noxious weeds, unauthorized trails, and human-caused fire.

Action Alternative C:

The cumulative effects to vegetation would be similar to those under Alternative A.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS (NOT SPECIAL STATUS):
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

Existing Environment[3]:

Of the 108 mammal species found in Montana, 74 are suspected or known to occur in Flathead County (Foresman 2012). Six amphibian and seven reptile species have also been documented in Flathead County (Maxell et al. 2003) and at least 65 species of birds have been documented in the vicinity in the last 10 years (Lenard et al. 2003). The analysis area is located within deer and elk winter range (MNHP 2012), which provides important forage and shelter habitat to aid in maintaining energy reserves in big game.

Spencer Lake contains largemouth bass (*Micropterus salmonoids*), northern pike (*Esox lucius*), pumpkinseed (*Lepomis gibbosus*), yellow perch (*Perca flavescens*), and westslope cutthroat trout (*Oncorhynchus clarkii lewisi*) (Section 9). All of these species have been introduced to Spencer Lake. Only largemouth bass is regularly stocked by MFWP. Spencer Lake was last stocked with largemouth bass in 2008. There are no fish data available for the Spencer Lake outlet stream (MFWP 2012). There would be minimal risk of effects to fish under all of the alternatives. There would be a negligible increase in fishing pressure on Spencer Lake, and the reductions in sediment due to improvements to the existing parking area and SMZ on Spencer Lake would not be likely to affect fish. Therefore, fish (except special status) are not discussed further in this EA.

The analysis area is forested, facilitating use by species requiring connected forested conditions and/or forested interior habitats. However, connectivity within the analysis area has been reduced with past timber harvesting and the network of 10 miles of existing road and approximately 16 miles of user-constructed single track recreation trails. Wildlife within the analysis area currently experience moderate levels of disturbance due to moderate levels of recreational activity. Recreational activities include biking, hiking, commercial horseback riding, and cross-country skiing, snowshoeing, and snowmobiling in the winter (winter recreation use is lighter than that of other seasons) (Section 20). During field evaluations, litter was observed at several locations on the trails.

Increasing human presence into wildlife habitats creates the potential for interactions between wildlife and humans. Humans can disturb or displace wildlife, attract wildlife, and/or get into conflicts with wildlife. Disturbance of wildlife by humans may elicit short-term or long-term behavioral responses (avoidance, habituation, or attraction) and/or physiological responses (affecting an individual's energy budget or population productivity, which is especially important within winter or summer range for big game) in wildlife (Joslin and Youmans 1999). This disturbance generally affects not only the narrow trail corridor, but extends some distance out into the adjacent habitats and potentially affects the wildlife in that wider area. This is of particularly importance when recreationalists bring dogs with them since dogs extend the zone of influence around the trail, especially when not on a leash. Unleashed dogs can disrupt wildlife activities, alarm individuals, chase, injure, or even kill wildlife. Collectively, facilitating increases in human activities within wildlife habitats increases the potential for elevated wildlife disturbance.

Some wildlife can be attracted to humans and/or the associated refuse\garbage\litter as a source of easily accessible source of food. Individuals of some species of wildlife can become a nuisance when habituated to artificial food sources that humans introduce. Litter from food items brought while recreating that may not be properly removed introduces foods consumed by humans to wildlife. Receptacles that are not wildlife resistant may allow certain wildlife to access the litter and become

[3] The direct, indirect, and cumulative effects analysis area for general wildlife (not special status) is the approximately 2,500 acres associated with the Spencer Lake Timber Sale (North and South) (located in Sections 4, 5, 8, 9, 15, 16 Township 30N, Range 22W and Section 33 in Township 31N, Range 22W) which includes the proposed SRUL area.

habituated to eating human litter. These refuse receptacles can then become not only an attractant, but may also become a primary source of food. This conditioning of wildlife to human foods can lead to human-wildlife conflicts and result in wildlife mortalities.

Direct and Indirect Effects:

No Action Alternative A:

There would be negligible to minor effects to terrestrial wildlife under Alternative A related to increased use of the existing trail system in the future. This increased use would generally be on existing roads and trails, unless new user-defined trails are created. This would result in an increase in disturbance to wildlife, potential for human-wildlife conflicts, and increased litter attractants. These would be minor adverse effects on wildlife when compared to the current level of disturbance present in the analysis area.

Proposed Action Alternative B:

The increase in the use of the trail network if it becomes an authorized trail system managed by the City of Whitefish is likely to be greater than that under Alternative A. Wildlife currently found near existing trails and roads within the analysis area are likely habituated to a moderate level of disturbance due to recreation. Increased use of the trail system expected under this alternative would be additive to existing levels of disturbance. Additional disturbance would also occur associated with the 1.2 miles of new trail. The SRUL would include stipulations requiring the installation of educational signage encouraging users to leash dogs and to be aware of potential threats to wildlife such as littering, and installing and regularly servicing (wildlife-resistant) litter receptacles. With this mitigation, recreational users would be more educated regarding litter attractants, but because of the likely increased use (beyond that of Alternative A) the threat of litter-attractants would remain. Overall, there would be minor adverse effects on wildlife that would be additive to the existing moderate disturbance present in the analysis area.

Although winter trail use is less than that of other seasons (Section 20), non-motorized winter use of the trails does occur and may increase as the trail network is improved and public awareness of the trails increases, beyond that which would occur under Alternative A. Expanding winter use would increase disturbance to wintering animals beyond that which would occur under Alternative A. Wintering animals would expend energy moving away from human disturbance, which would also reduce the time they could be browsing or conserving energy. The increased amount of winter use is expected to be minor; therefore, there would a minor adverse effect on big game winter range within the analysis area.

Action Alternative C:

The effects to terrestrial, avian, and aquatic life and habitats would be similar to those under Alternative A, except that there may be a short-term decrease in use by mountain bikers after the free-ride structures and steep sections of trail are decommissioned. Therefore, there could be a short-term decrease in effects to wildlife. However, in general trail recreation in the Whitefish area is increasing with area growth, and in the long term recreational use would increase regardless of the removal of these features.

Cumulative Effects:

No Action Alternative A:

Increased levels and distribution of recreation across the existing trail network and surrounding area under Alternative A would be additive to the current level of recreation, and therefore recreation-related disturbance to wildlife. There is already a moderate level of disturbance to wildlife in the area due to residential and agricultural development. Without improvements such as educational signs and wildlife-resistant litter receptacles, the cumulative effects of increased recreation use under Alternative A would result in minor cumulative effects on wildlife through increased wildlife disturbance, potential for conflicts, and litter attractants.

Any increased trail use in the winter would increase the disturbance to winter range and be additive to Spencer Lake Timber Sale activities if occurring concurrently. After harvesting, any winter recreational

use would be expected to be minor and have minor adverse cumulative effects on deer and elk winter range.

Proposed Action Alternative B:

Increased levels and distribution of recreation across the existing trail network and surrounding area under Alternative A would be additive to the current level of recreation but would be greater than that under Alternative A. There is already a moderate level of disturbance to wildlife in the area due to residential and agricultural development. Educational signs at the trailheads would inform users of the inherent risks of recreating in an area with abundant wildlife and educate trail-users of proper behaviors around wildlife including proper disposal of wildlife attractants and minimizing potential for disturbance and human-wildlife conflicts. Additionally, wildlife-resistant litter receptacles would be installed at trailheads to minimize the risk of wildlife becoming attracted to trails or trailheads due to food rewards. With the above mitigations, the cumulative effects of the SRUL would result in minor cumulative effects associated with increased wildlife disturbance, potential for conflicts, and litter.

Increased trail use in the winter expected under this alternative would increase the disturbance to winter range and be additive to Spencer Lake Timber Sale activities if occurring at the same time. Any increased trail use in the winter would cumulatively increase the disturbance to winter range when harvest was occurring; this cumulative disturbance to winter range would be greater under Alternative B than under Alternatives A and C. After harvesting, any winter recreational use would be expected to be minor and have minor adverse cumulative effects on deer and elk winter range.

Action Alternative C:

The cumulative effects to terrestrial, avian, and aquatic life and habitats would be similar to those under Alternative A.

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9. SPECIAL STATUS, UNIQUE, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

SPECIAL STATUS SPECIES

Existing Environment[4]:

There are no special status plant species known, or with the potential, to occur within the analysis area (MNHP 2012b).

Grizzly bear (*Ursus arctos*) is the only threatened or endangered species that has the potential to occur within the analysis area. A small amount of suitable lynx habitat is present, but due to the existing level of disturbance and limited quantity of suitable habitat lynx are unlikely to be present. Seven wildlife species designated as sensitive are known, or have the potential, to occur within the analysis area: westslope cutthroat trout, gray wolf (*Canus lupus*), fisher (*Martes pennanti*), common loon (*Gavia immer*), flammulated owl (*Otus flammeolus*), pileated woodpecker (*Dryocopus pileatus*), and northern goshawk (*Accipiter gentilis*).

[4] Unless otherwise noted for a specific species, the direct, indirect, and cumulative effects analysis area for special status wildlife is the approximately 2,500 acres associated with the Spencer Lake Timber Sale (North and South) (located in Sections 4, 5, 8, 9, 15, 16 Township 30N, Range 22W and Section 33 in Township 31N, Range 22W) which includes the proposed SRUL area.

Grizzly bear (Threatened)

The analysis area is approximately 7 miles outside of the Lazy Creek subunit of the Northern Continental Divide Ecosystem (NCDE) and over 1 mile outside of the 'occupied habitat' area as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones (Wittinger 2002). Sustained use of the analysis area by grizzly bears is not likely or anticipated due to the distance of the area from the NCDE recovery zone, and relatively high density of human developments and high human use on lands surrounding the analysis area. Should any grizzly bears be present in the area, it is possible that they would come into conflict with humans and be removed by wildlife managers. These factors would likely preclude successful long-term occupancy of the analysis area by grizzly bears. Transient use of the analysis area by individual grizzly bears could occur. A number of studies have documented disturbance and displacement of grizzly bears associated with human use of trails and roads (Jope 1985, McLellan and Shackleton 1989, Mace and Waller 1996, Waller and Servheen 2005). Graves (2002) found that grizzly bears selected against areas within 450 to 600 meters from single-track trails similar to those within the proposed SRUL area. Litter-attractants have been observed on the existing unmanaged trail network. Numerous human developments and agricultural lands occur within 1 to 2 miles of the analysis area.

Direct and Indirect Effects:

No Action Alternative A:

Any transient individuals present within the analysis area would likely experience moderate levels of disturbance from the current recreational use on the existing trail network and from human developments adjacent to the area. Although the anticipated increase in recreational use due to Whitefish-area growth would increase the potential for litter-attractants and human interactions, the effect of Alternative A on transient grizzly bears is negligible due to the current level of disturbance.

Proposed Action Alternative B:

Under Alternative B, the STN would be authorized and would be improved with signage educating users about controlling litter and encouraging the use of leashes for dogs. Minor disturbance effects associated with increased use of the trail network would not likely greatly increase the risk to grizzly bears above existing levels and regularly-serviced, bear-resistant litter receptacles and signage would serve to reduce any increased risk from the existing condition. Increased risk of human-bear encounters could also occur. However, risk associated with human-bear encounters under Alternative B would not likely greatly increase risks to bears from existing levels and information signs and monitoring conflicts in the area would serve to mitigate any increased risk from the existing condition. Overall, the effects of disturbance on grizzly bears and increased risk of bear-human encounters under Alternative B would be minor.

Action Alternative C:

The effects to grizzly bear would be similar to those under Alternative A, except that there may be a short-term decrease in use by mountain bikers after the free-ride structures and steep sections of trail are decommissioned. Therefore, there could be a short-term decrease in potential effects to grizzly bears. However, in general trail recreation in the Whitefish area is increasing with area growth, and in the long term recreational use would increase regardless of the removal of these features.

Cumulative Effects (all alternatives):

The cumulative effects analysis area for grizzly bears is an approximately 63,000-acre area following topographic and geographic boundaries around the proposed SRUL area (Appendix C). Under all of the alternatives, the increased use of the STN, coupled with previous and planned recreation system expansion in the area, would also increase the cumulative risk of human-bear encounters in the cumulative effects analysis area. This cumulative risk would be greatest under Alternative B. However, there is already an inherently moderate risk for human-bear encounters in the cumulative effects analysis area due to the amount of residential development, cabin site leases, ski developments, and agricultural activity in the Stillwater valley, and moderate levels of recreational use. Alternative B, with the above-

described mitigations to reduce litter attractants, reduce disturbance related to increased use of the trails with signage, and educate the user would result in minor cumulative effects to grizzly bears.

Westslope cutthroat trout (Sensitive)

Westslope cutthroat trout were introduced to Spencer Lake and are abundant. Westslope cutthroat are found in both lake and stream environments and feed primarily on aquatic insects and zooplankton. Westslope cutthroat spawn in the spring in running water. The westslope cutthroat trout has been reduced in its range in western Montana primarily by hybridization with rainbow trout, and habitat loss and degradation. The westslope cutthroat trout present in Spencer Lake is potentially a hybrid species (MFWP 2012).

Direct and Indirect Effects:

No Action Alternative A:

There would be at most a negligible increase in fishing pressure on Spencer Lake due to increasing use of the trail network, which would be unlikely to affect westslope cutthroat trout. There would be minimal risk to westslope cutthroat trout populations or habitat under Alternative A.

The reductions in sediment due to improvements to the current unauthorized parking area and SMZ under the Spencer Lake Timber Sale would not be likely to affect westslope cutthroat trout.

Proposed Action Alternative B:

There would be at most a negligible increase in fishing pressure on Spencer Lake due to authorizing an SRUL, and a reduction in sediment delivery due to improving the parking area and SMZ under Alternative B would be unlikely to affect westslope cutthroat trout. There would be minimal risk to westslope cutthroat trout populations or habitat under Alternative B.

Action Alternative C:

The effects to westslope cutthroat trout under Alternative C would be similar to those under Alternative A.

Cumulative Effects (all alternatives):

There would be a minimal risk of cumulative effect to westslope cutthroat trout under all of the alternatives because there are negligible direct and indirect effects.

Gray wolf (Sensitive)

Key components of gray wolf habitat include a sufficient year-round prey base of deer, elk, moose, and alternative prey; suitable and somewhat secluded denning and rendezvous sites; and sufficient space with minimum exposure to humans. Wolves are social animals that form packs organized around a breeding pair. Wolves usually den in underground burrows dug in steep slopes. When young wolves (pups) are 6 to 10 weeks old, the pack moves from dens to rendezvous sites. Rendezvous sites are gathering areas where pups stay while the pack hunts.

The analysis area is at the southern edge of the home range of the Lazy Creek pack, and use of the analysis area by gray wolf may occur (Laudon pers. comm. 2012). Individuals dispersing from the Lazy Creek pack may also pass through the analysis area. Wolves are most sensitive at den and rendezvous sites, which are not known to occur in the analysis area.

Direct and Indirect Effects:

No Action Alternative A:

The increased use of the existing trail network due to increased Whitefish-area growth would have effects to gray wolf similar to those described below for Alternative B.

Proposed Action Alternative B:

The trail improvements and authorization for management by the City of Whitefish would cause an increase in use of the trail network above that which would occur under Alternative A. Increased visitation and recreational use may displace individuals of big game species such as elk, mule deer, and white-tailed deer, which are the primary prey species of the wolf (Kunkel et al 1999). This could reduce hunting opportunities for the wolves from the Lazy Creek pack within the analysis area. There is already a moderate level of human disturbance within the analysis area, and increased use is likely to occur during the winter (Section 20). Potential temporary displacement of big game animals associated with trail use would not likely affect prey availability for local wolf packs. However, direct disturbance and temporary displacement of wolves could occur. Trail construction, maintenance, and use could disturb gray wolves should they be using the area. Increased human disturbance levels would likely reduce potential gray wolf use into the future, but due to the current level of disturbance the analysis area is poorly suited for den and rendezvous sites. Therefore, the disturbance due to authorization of the STN would be a negligible to minor effect on wolves.

Action Alternative C:

The effects to gray wolves under Alternative C would be similar to those under Alternative B.

Cumulative Effects (all alternatives):

The cumulative effects analysis area for gray wolf is the same as that for grizzly bear (Appendix C). Under all alternatives, the increased use of the trail network, in conjunction with previous, proposed, and future trail building in the area (Section 13) would cumulatively increase the long-term effects of big game displacement and disturbance related to trail construction, maintenance, and recreational use on gray wolves. This cumulative effect would be greatest under Alternative B. However, there is already an existing moderate risk of displacement and disturbance to gray wolves due to the high amount of residential development, cabin site leases, ski developments, agricultural activity, and moderate levels of recreational use within the cumulative effects analysis area. Therefore, the previous, planned, and proposed expansions of the recreation system within the cumulative effects analysis area would be a negligible to minor cumulative effect on gray wolves.

Fisher (Sensitive)

Fishers are a mid-sized forest carnivore that uses a variety of forest successional stages, but are disproportionately found in stands with dense canopies (Powell 1982, Johnson 1984, Jones 1991, Heinemeyer and Jones 1994) and avoid openings or young forested stands (Buskirk and Powell 1994). Fishers appear to be highly selective of stands that contain resting and denning sites and tend to use areas within 150 feet of water (Jones 1991). Modeling fisher habitats generated an estimate of 236 acres of suitable fisher foraging, resting, denning, and travel habitats (236 upland acres and 0 riparian acres) in the analysis area. An additional 67 acres are in a correct cover type, but lack structural attributes necessary for use as fisher resting and denning habitats; development of these structural attributes through time is possible as these stands mature (DNRC 2011a). There have not been any observations of fisher within 10 miles of the analysis area (MNHP 2012a). Due to the lack of riparian fisher habitat, lack of recent fisher observations, and existing recreational activities within the analysis area, extended use of the area by fishers is low.

Direct and Indirect Effects:

No Action Alternative A:

There would be an increase in potential disturbance due to increased human recreation over time, but this would be a negligible adverse effects on fishers because: 1) trapping pressure is unlikely to increase because motorized access is already available to the analysis area, 2) the analysis area generally lacks preferred riparian habitat and expected use of the area by fishers is low, and 3) there have not been any observations of fisher within 10 miles of the analysis area (MNHP 2012a).

Proposed Action Alternative B:

Trail construction or reroutes would not generally affect fisher resting and denning habitats. The decommissioning of trail segments in riparian areas around Spencer Lake would have a negligible effect on riparian habitat connectivity. There could be an increase in potential disturbance due to increased recreation that could be greater than that under Alternative A, but this would still be a negligible effect on fishers for the same reason discussed above under Alternative A.

Action Alternative C:

The effects to fishers under Alternative C would be similar to those under Alternative A.

Cumulative Effects (all alternatives):

There would be minimal risk of cumulative effects to fishers under all alternatives because there are negligible direct or indirect effects.

Common loon (Sensitive)

Common loons are known to nest on Spencer Lake. The common loon is a large and mainly aquatic bird that preys largely on fish, but will also consume frogs, salamanders, snails, leeches, and aquatic insects. Loons are highly territorial, and typically just one pair nests on a small to mid-size lake (such as Spencer Lake). Nests can be located on small islands, partially submerged logs, or on floating mats of herbaceous vegetation. Loons are poorly adapted to living out of the water; therefore nests are generally located where they can slip directly from the nest into the water. Loons are relatively sensitive to human disturbance and are usually associated with water bodies with lower levels of human disturbance. Human disturbance during the nesting and early chick-rearing period (mid-April thru mid-July) could lead to nest failures if the adults are disturbed and leave the nest unattended for even short periods of time. In general, besides direct loss of nesting and nursery habitat, loon reproduction tends to be most seriously affected by disturbance by recreationists.

Direct and Indirect Effects:

No Action Alternative A:

A portion of the existing trail network runs along the south edge of Spencer Lake. Nesting loons already have the potential for disturbance from this trail section. Under Alternative A, the location of trails near Spencer Lake would not appreciably change. Over time, the existing trail network would likely have increased use in conjunction with Whitefish-area growth, and the adverse effects to loons of disturbance near the lake would be negligible to minor.

Proposed Action Alternative B:

The effects to loons would be similar to those under Alternative A, except the trail within the SMZ south of Spencer Lake would be decommissioned, rerouted to a location out of the SMZ, and mitigations would be applied to further lessen impacts to loon. Rerouting these sections of trail away from Spencer Lake would decrease potential disturbance on loons. To further mitigate disturbance to nesting loons on Spencer Lake, the SRUL would include stipulations requiring signage that would educate users about the potential presence of nesting loons. However, by formalizing trail use and providing trailhead infrastructure, Alternative B could measurably increase overall levels of recreational use in the vicinity of Spencer Lake. Overall, with the rerouting of trail sections away from the edge of Spencer Lake and providing education materials regarding loons in the area, the increase in potential disturbance to nesting loons would be negligible to minor under Alternative B.

Action Alternative C:

The effects to loons under Alternative C would be similar to those under Alternative A.

Cumulative Effects (all alternatives):

The cumulative effects analysis area for loons is the area including the Beaver-Skyles public recreation easement (Section 13) and the proposed SRUL area. There have been observations of loons on many of the area lakes, including Beaver, Little Beaver, Murray, Dollar, and Woods. Except for Little Beaver Lake, there is currently motorized access to these lakes and recreation is common; therefore, there is already a moderate level of disturbance to loons on these lakes. Other trail projects in the area of these lakes (Section 13) would increase the potential disturbance to loons in the cumulative effects area, especially during nesting. Under all of the alternatives there would be minor cumulative effects on loons.

Flammulated owl (Sensitive)

Flammulated owls inhabit dry ponderosa pine and Douglas-fir stands such as those in the analysis area. Flammulated owls breed in montane forest containing open stands of conifers with some understory of brush or saplings. There were approximately 825 acres of flammulated owl habitat identified within the sections that contain the analysis area (DNRC 2011a). Flammulated owls are generally tolerant of human disturbance (McCallum 1994).

Direct and Indirect Effects:

No Action Alternative A:

In conjunction with an increase in future Whitefish area growth there would be an increase in recreational use of the analysis area. There would not be any improvements to the trail network under Alternative A and flammulated owl habitat would not be affected. Because flammulated owls are generally tolerant of human disturbance and this alternative would not appreciably affect flammulated owl habitat, there would be minimal risk of effects to flammulated owls under Alternative A.

Proposed Action Alternative B:

There would likely be an increase in recreational use under Alternative B, greater than that under Alternative A. Improvements to the trail network would not include harvest other than incidental clearing of small diameter trees. Snags would be avoided during new trail construction to maintain nesting habitat. Because flammulated owls are generally tolerant of human disturbance and potential nest snags would be maintained, there would be minimal risk of effects to flammulated owl under Alternative B.

Action Alternative C:

The effects to flammulated owls would be similar to those under Alternative A.

Cumulative Effects (all alternatives):

Under all of the alternatives, increased visitation as a result of expanding the developed recreation system in the Whitefish area (Section 13) and current and future SRULs would not likely have a measurable cumulative effect on flammulated owls because owl habitat would not be appreciably modified and they are generally tolerant of human disturbance.

Pileated woodpecker (Sensitive)

In the analysis area potential pileated woodpecker nesting habitat exists on approximately 1,498 acres (DNRC 2011a). Preferred nest trees are western larch, ponderosa pine, cottonwood, and quaking aspen, usually 20 inches diameter and larger. The feeding and nesting habitat requirements, including large snags or decayed trees for nesting and downed wood for feeding, closely tie these woodpeckers to mature forests with late-successional characteristics. The density of pileated woodpeckers is positively correlated with the amount of dead and/or dying wood in a stand (McClelland 1979). Pileated woodpeckers tend to be tolerant of human activities (Bull and Jackson 1995).

No Action Alternative A:

In conjunction with an increase in future Whitefish area growth there would be an increase in recreational use of the analysis area. There would not be any improvements to the trail network under Alternative A and improvements made as part of the Spencer Lake Timber Sale would not affect pileated woodpecker habitat. Because pileated woodpeckers are tolerant of human disturbance, there would be minimal risk of effects to pileated woodpeckers under Alternative A.

Proposed Action Alternative B:

There would likely be an increase in recreational use under Alternative B, greater than that under Alternative A. Improvements to the trail network would not include harvest other than incidental clearing of small diameter trees and downed woody debris. Snags would be avoided to maintain nesting habitat. Because pileated woodpeckers are tolerant of human disturbance, and snags would not be appreciably affected, there would be minimal risk of effects to pileated woodpeckers under Alternative B.

Action Alternative C:

The effects to pileated woodpecker would be similar to those under Alternative A.

Cumulative Effects (all alternatives):

Under all of the alternatives, increased visitation as a result of expanding the developed recreation system in the Whitefish area (Section 13) and current and future SRULs would not have a negligible cumulative effect on pileated woodpeckers because their habitat would not be appreciably modified and because of their tolerance to human disturbance.

Northern goshawk (Sensitive)

Northern goshawks are forest generalists, but tend to avoid young, dense forests due to their large size and wingspan. Optimal habitat for northern goshawks includes forest stands with canopy cover greater than 60 percent, overstory trees with diameters greater than 15 inches, and the presence of dead or defective trees greater than 10 inches in diameter. Typically, the home range and foraging area is 1,235 to 9,884 acres and may be comprised of a variety of forest types and openings. Quality foraging habitat is single- or two-storied, non-alpine stands with open or relatively open understories (Samson 2006). Goshawks are not dependent on large, unbroken tracts of old growth or mature forest (Brewer et al. 2007).

A pair of goshawks with a possible juvenile was observed in the analysis area in the eastern portion of Section 4 in 2010, but no nest site was identified (DNRC 2011a). Section 4 currently contains a high density of existing trails. Northern goshawks nest approximately May 1 through August 31, which is also the period of highest recreational use in the analysis area. Therefore, northern goshawks likely experience a moderate level of disturbance from existing recreational use. Continued monitoring is planned to determine if a nest is in the vicinity; however, for this analysis, it will be presumed that a nest exists in the approximate location where the pair was detected in 2010.

No Action Alternative A:

Increased recreational use of the analysis area in the future as a result of Whitefish-area growth could increase the disturbance to nesting goshawk because the nesting season is in conjunction with the period of highest use of the trail network. If goshawks are nesting in the area, they likely experience a moderate amount of disturbance due to recreational use and additional use under this alternative would be minor. Therefore, the anticipated adverse effects to goshawk under Alternative A would be minor.

Proposed Action Alternative B:

Increased use of the trail network would occur, above that which would occur under Alternative A. The increased use of the analysis area under Alternative B could increase the effect of disturbance to nesting goshawks above that under Alternative A. If goshawks are nesting in the area, they likely experience a

moderate amount of disturbance due to recreational use and additional use under this alternative would be minor. New trail locations in the vicinity of the presumed nesting area are in close proximity to existing trails and would not likely increase disturbance into previously undisturbed areas. Therefore, the effect to goshawk under Alternative B would be minor.

Action Alternative C:

The effects to northern goshawk would be similar to those under Alternative A, except that there may be a short-term decrease in use by mountain bikers after the free-ride structures and steep sections of trail are decommissioned. Therefore, there could be a short-term decrease in potential disturbance to goshawks. However, in general trail recreation in the Whitefish area is increasing with area growth, and in the long term recreational use would increase regardless of the removal of these features.

Cumulative Effects (all alternatives):

The cumulative effects analysis area for northern goshawk is an approximately 5,434-acre (8,680 foot radius) circle centered on the approximate location of the potential nest in Section 4. This scale includes enough area to support a pair of goshawks while approximating the home range size for northern goshawks (Reynolds et al. 1992). At least 2,628 acres exists as potential goshawk nesting habitat, and additionally some portion of the 2,184 acres of thinned forest in the analysis area could also be suitable nesting or foraging habitats. Collectively, moderate amounts of potential northern goshawk habitats exist in the cumulative effects analysis area. Previous land management activities by adjacent private land owners have reduced the capacity of the analysis area for potential nest sites. Ongoing harvesting associated with timber sale projects on DNRC-managed lands or other ownerships could continue reducing potential northern goshawk nesting and foraging habitats. Increased recreational use and trail development (Section 13) under all alternatives within the cumulative effects analysis area could increase disturbance to nesting goshawks by a negligible to minor degree. If goshawks are nesting in the area, they likely experience a moderate amount of disturbance due to existing recreational use. Therefore, cumulative effects to goshawks under all alternatives would be expected to be minor.

WETLANDS

Existing Environment:

The only National Wetlands Inventory (NWI)-classified wetlands that occur within the proposed SRUL area are located along the outlet of Spencer Lake (MNHP 2010a, 2010b). This area of freshwater emergent marsh is directly adjacent to the existing unauthorized parking area. Sediment delivery from the parking area is currently entering these wetlands (Sections 4 and 5).

Direct and Indirect Effects:

No Action Alternative A:

The current sediment delivery to the wetlands from the unauthorized parking area would continue until the parking area was improved as part of the Spencer Lake Timber Sale (DNRC 2011a).

Proposed Action Alternative B:

Under Alternative B, the sediment source to the Spencer Lake wetlands would be removed. Parking would be eliminated within the SMZ for the outlet, and adequate vegetation filters and drainage would be installed. Alternative B would result in a moderate beneficial effect to water quality.

Action Alternative C:

The effects to wetlands would be similar to those under Alternative A.

Cumulative Effects (all alternatives):

There would not be any cumulative effects to wetlands under any of the alternatives. The BMPs associated with the Spencer Lake Timber Sale would result in minimal changes to water quality.

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10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological, or paleontological resources.

Existing Environment:

The remnants of an historic cabin were identified in Section 9 of Township 30 North, Range 22 West (DNRC 2011a). This historic feature is not located within the proposed SRUL area.

Direct, Indirect, and Cumulative Effects (all alternatives):

There would not be any effect to historical and archaeological sites under any of the alternatives.

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11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light, or visual change would be produced? Identify cumulative effects to aesthetics.

Existing Environment:

The proposed SRUL area includes the existing trail network, the unauthorized parking area at Twin Bridges Road, and the existing parking area off Rifle Range Road. The primary observation points are from the roads, trails, and from the Twin Bridges Road where it passes the parking area. Currently, litter in some locations on the trail network degrades the visual aesthetic and the recreational quality of the trail network. Portions of the trails are degraded, and free-ride structures, which in some cases are haphazardly constructed, further reduce the visual aesthetics of the trails. Observers of the unauthorized parking area on Spencer Lake would notice that it is severely degraded and cars are parked along the road adjacent to the parking area on busy days.

Direct and Indirect Effects:

No Action Alternative A:

There would not be any improvements to the trails; therefore, the current visual conditions would persist. With increased visitation due to Whitefish-area growth, the visual aesthetic is likely to decrease. This would be a moderate effect on aesthetics under Alternative A. Once the unauthorized parking area was improved as part of the Spencer Lake Timber Sale the visual impact to observers would be improved, but visitors on Twin Bridges Road would still continue to see parked cars on the side of Twin Bridges Road on busy days, and this visual effect may increase after the portion of the parking area in the SMZ is blocked off as part of the Spencer Lake Timber Sale.

Proposed Action Alternative B:

Under Alternative B, degraded portions of trails would be improved with adequate armoring and/or drainage, or they would be decommissioned. The current unauthorized parking area would be substantially reduced in size, its surface would be graded, and adequate drainage structures would be installed; however, this parking lot would only be used as overflow parking. A parking lot would be constructed from the log landing associated with the Spencer Lake North Timber Sale, which in conjunction with the overflow parking would alleviate the parking on the side of Twin Bridges Road. However, until the log landing is converted into a recreational parking lot the primary parking would be the overflow lot. This would result in temporary visual effects related to parking on Twin Bridges Road that would be similar to those under Alternative A. Another parking lot would be improved from the existing parking area on Rifle Range Road. This parking lot would not likely influence parking at Twin Bridges Road, but it would have a visual effect as a new kiosk and signage would be visible from Rifle Range

Road. Signage urging users to dispose of their litter appropriately (either pack it out, or in regularly-serviced, wildlife-resistant litter receptacles provided at the trailhead) would be installed at appropriate locations on trails and at the parking lots. The increased level of visitation would still result in some litter that is improperly disposed of but these improvements would provide a minor to moderate beneficial effect to the visual qualities of the proposed SRUL area.

Free-ride structures would be brought up to standards identified in Appendix B or they would be removed. Remaining structures may still represent a degraded visual aesthetic for some users; therefore, the free-ride structures under Alternative B would have a negligible to moderate effect on visual quality depending on the perspective of the user.

Action Alternative C:

The DNRC would decommission excessively steep portions of trail and remove all free-ride structures. This would be a moderate to major visual effect that would be beneficial or negative depending on the perspective of the user. However, based on the history of the proposed SRUL area, it is likely that steep trails and the technical structures would be illegally constructed again and without any of the standards discussed in Appendix B. Therefore, if the steep trails and structures were constructed again the visual effect would be returned to baseline (existing condition) until the DNRC performed another trail decommissioning.

Cumulative Effects:

No Action Alternative A:

Alternative A, in conjunction with temporary effects to aesthetics associated with the Spencer Lake Timber Sale, would have a minor cumulative effect. During harvest, and prior to final clean up, there would be a temporary decrease in visual quality within the proposed SRUL area. Continued decreases in visual quality due to increased use of the trail network, without management, would cumulatively add to this effect. After the timber sale and final clean up has been completed, users would notice a more open forest which may provide more open line of sight to the free-ride structures, which would not be improved. This would be a cumulative effect that depended upon the perspective of the user, but it would be greater than that under Alternative B because the structures would remain sub-standard..

Proposed Action Alternative B:

There would not be any long-term cumulative effects on aesthetics under Alternative B. For users that consider the free-ride structures to be a negative impact on visual quality, there would be a temporary cumulative effect on aesthetics during the harvesting activities associated with the Spencer Lake Timber Sale (slash, downed material, disturbed ground), prior to clean up. After the timber sale is complete (after clean up), users would notice a more open forest which may provide more open line of sight to free-ride structures, which would be a cumulative effect that depended upon the perspective of the user.

Action Alternative C:

The cumulative effect of the Spencer Lake Timber Sale with Alternative C would depend on whether steep trail and free-ride structures were illegally constructed again by users. If these features were decommissioned, there would not be any cumulative effect to visual resources related to the Spencer Timber Sale. If these features were reconstructed there would be a cumulative visual effect that would be greater than under Alternative B because these features would not be constructed according to standards (Appendix B).

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

There would not be any effect on environmental resources of land, water, air, or energy.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

Trail Runs Through It Project/Whitefish Trail

The TRTI project was renamed the Whitefish Trail in 2010. The Master Plan for the TRTI project, developed in 2006, details a "recreational trail network that includes a continuous corridor encircling the greater Whitefish area. This network will enhance access to public lands and other trail systems while respecting traditional use and promoting public interest in forest health. Primary goals of the trail network will be to provide opportunities for relaxation and outdoor recreation close to town, promote open space, increase revenues for the School Trust Lands, and support the local economy" (Applied Communications 2006). The first phase of the TRTI project was analyzed by the DNRC in an EA in December 2007 (DNRC 2007).

Goguen Land Exchange

The DNRC exchanged 435 acres of State land for 599 acres of private land located west of Whitefish (DNRC 2008). The State trust land consisted of 435 acres of forest land in Sections 28 and 29 of Township 31 North, Range 22 West in the Stillwater State Forest (known as the *State Trust Parcel*). The Goguen land that was exchanged consisted of three pieces: 569 forested acres in Sections 2, 11 and 12 of Township 31 North, Range 23 West (known as the *Lupfer Parcel*); 30 acres of mixed agricultural/forested land in Section 5 of Township 30 North, Range 22 West (known as the *Highway 93 Parcel*)); and one commercial property located at 140 Lupfer Avenue in Whitefish (known as the *Commercial Property*).

Trail Runs Through It Phase 1A

The DNRC analyzed a request by the City of Whitefish for the authorization for construction and operation of Phase 1A of the TRTI trail complex plan (DNRC 2009). The Phase 1A trail extends from Lion Mountain Loop (LML) Road to the existing parking lot at the Two Bear gate and the north boundary of the State ownership in Section 33. The document analyzed the proposal to build approximately 5 miles of trail, approximately 700 linear feet of road, a parking area, and sanitation facilities to accommodate use of this area.

Whitefish Trail - Phase II, Beaver Lake

This EA analyzed a proposal to grant authorization for construction and operation of Phase II of the Whitefish Trail (DNRC 2011b). Granting the proposed authorization required an amendment to the current land use license. The project area is located on State trust lands in the Beaver Lake complex, more specifically described as Sections 8, 17, 18, 19, 20, T31N, R22W.

Spencer Lake Timber Sale

The DNRC analyzed this timber sale in an EA dated January 2011 (DNRC 2011a), and it was approved by the Land Board on December 17, 2012. The proposed SRUL area is located within the boundaries of this project. The activities proposed under Alternative B would occur prior to, during, and after the north portion of the Spencer Lake Timber Sale.

Beaver Land Banking Project

The DNRC analyzed a request by an adjacent landowner to acquire approximately 580 acres of State trust land in the Beaver-Skyles area (DNRC 2012a). Revenue from the sale will be deposited in a special account, with monies from other sales around the State, to purchase replacement lands meeting acquisition criteria related to legal access, productivity, potential income, and proximity to existing State ownership which would then be held in trust for the same beneficiaries. The project includes the construction of approximately 1.5 miles of new trail that will be incorporated into the Whitefish trail system.

Whitefish Trail - Phase III, Swift Creek

The DNRC analyzed a request by the City of Whitefish to expand the Whitefish Trail system through the Swift Creek area (DNRC 2012c). The project consisted of constructing approximately three miles of new trail which includes trail construction on approximately one mile of existing road. A main trailhead was built at an existing gravel pit with an option of another smaller trailhead located further north. The main trailhead could provide access to additional trail loops in the future as additional land use planning and trail expansion proposals take place. Amenities include both directional and interpretive signing as well as a trailhead that accommodates parking for vehicles.

Beaver-Skyles Public Recreation Easement

The DNRC analyzed a proposal by the City of Whitefish to purchase a permanent public recreation easement from the DNRC on approximately 1,580 acres of State trust land in the Beaver Lake and Skyles Lake areas (DNRC 2012c). The easement will:

- permanently secure a public right of non-motorized access throughout the easement area, and on current and future trails;
- allow continued forest management by the State of Montana (with limitations);
- prohibit residential and commercial development; this would restrict the State's right to subdivide the land;
- allow for the future establishment of non-commercial recreation facilities (trailheads, day use sites, etc.); and
- allow non-commercial uses.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

Existing Environment:

The trail network is used by mountain bikers, hikers/runners, horseback riders, and those engaging in winter sports such as cross-country skiing, snowshoeing, and snowmobiling. Safety is the responsibility of the users and/or outfitters (in the case of the equestrian SRUL holders). There is no signage to encourage safe trail use (especially considering the multiple uses) and the user-created trails are not maintained. The current trail network is unique in the area in that it includes a substantial number of free-ride TTFs that increase the challenge and technical nature of the mountain biking trails. Free-ride trails within the proposed SRUL area are inherently risky due to their technical nature; however, there is no notification to users at the trailheads of the higher difficulty level associated with the current trail network.

Over the past 12 years, DNRC on several occasions has removed TTFs as they were discovered, only to have them reappear again on some other trail.

Emergency vehicles have access to the DNRC road system to provide for fire protection, security, and to provide medical services as needed. There have not been any incidents of human-caused fire associated with the existing trail network or unauthorized parking area to date.

Direct and Indirect Effects:

No Action Alternative A:

There would not be any improvements to the existing trail system, and the free-ride TTFs (and new TTFs built in the future) would remain substandard and excessively dangerous. The existing safety risks would continue and more people would be using the trails. The increased use of the trail system would correspond with an increased threat of multiple user conflicts and human-caused fire. These would be moderate effects on health and safety.

Under the Spencer Lake Timber Sale, the current parking area would be reduced in size to remove the portion within the SMZ. Without another parking lot there would be a substantial increase in the number of cars that would park along Twin Bridges Road. This would be a moderate to major effect on health and safety related to traffic hazards. Emergency vehicle access on DNRC roads would not change but congestion on the side of Twin Bridges Road could impede emergency vehicles at that location.

Proposed Action Alternative B:

The upgrade or removal of unsafe TTFs, decommissioning of overly steep trails, and installation of signage that educates the user about safely enjoying the multiple use trails would likely increase the safety of the trails and the TTFs. However, the inherent risks associated with this type of activity would remain. The proposed SRUL could increase the use of the trail network, above that which would occur under Alternative A. Signage that would be required by stipulations in the SRUL would minimize the risk of trespass onto adjoining private land. The authorization for management by the City of Whitefish and expanding public awareness of this recreation opportunity would also attract users that lack the skills to safely ride these trails, which are substantially more technical than the other trails in the Whitefish area. However, the stipulations for signage in the SRUL would also include notifying users about the expert skill level of the free-ride trails and require individuals to make a choice about whether they possess the necessary skills to safely ride the trails. Users that choose to ride the trail network would be provided information that allows them to choose which trails they can be responsible for safely riding. Therefore, the proposed SRUL would likely decrease the chance that a user would be injured on the trails because individuals would be notified at the trailheads of the higher difficulty level and the risks and allow users to avoid trails that they can't safely ride.

The increased use of the trail network would likely be greater than that which would occur under Alternative A, but signage would be installed reminding and educating users about fire risk, fire-safe practices, and fire prevention opportunities. This would help mitigate the risk of human-caused fire associated with increased use of the STN.

A greater number of people would likely be parking vehicles in the parking lots in order to use the STN, which would increase safety risks related to egress and ingress off of and into Twin Bridges Road (minor increase) and Rifle Range Road (negligible increase due to light use). Until the log landing is converted into a recreational parking lot, the current parking area would be the primary parking. This would cause temporary impacts to safety related to cars parking on Twin Bridges Road that would be similar to those under Alternative A. In the long term, on busy days, if the north parking lot was full vehicles would park in the overflow lot. If the overflow parking lot was full, vehicles would be parked along Twin Bridges Road, which would cause similar traffic hazard and emergency vehicle access effects as those under Alternative A. However, because more parking would ultimately be available, the potential for vehicle parking on the road, and associated traffic hazards, would be less than that under Alternative A.

Action Alternative C:

The DNRC would remove the free-ride TTFs and decommission steep sections of trail, which would improve the safety of the trail network for the short term. However, similar to Alternative A there would not be any other improvements to the trail system related to signage and user education. The potential for multiple use conflicts would be the same as under Alternative A. Furthermore, based on previous experience the DNRC assumes that free-ride structures would continue to be constructed in new locations after structures are removed, and would not be constructed to standards that would be more protective of safety (Appendix B). Therefore, although there would be a short-term increase in trail safety related to removing the free-ride structures, the potential for multiple use conflicts would remain and there would be the same long-term safety concerns as those under Alternative A.

Cumulative Effects (all alternatives):

Under all alternatives, the expansion of developed recreation in the Whitefish area would cumulatively lead to more recreational users in the area, which would not, by itself, cumulatively add to safety risks. The Spencer Lake Timber Sale would generally not pose a cumulative hazard to recreational users, because most of the recreational use occurs in the spring, summer, and fall and the timber harvest would generally occur in the winter.

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15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

Existing Environment:

The proposed SRUL area is land that is managed for timber, general recreation use permits, and land use licenses by the DNRC. There are two SRULs held by commercial equestrian operations that use the trail network in the proposed SRUL area. Approximately 8.3 miles of the proposed SRUL area is already authorized for these other SRULs.

Direct and Indirect Effects:

No Action Alternative A:

There would not be any changes to industrial, commercial, or agricultural activities and production. The commercial equestrian operations would continue to share the trails with other users, but future increased use of the trail network by mountain bikers and hikers (in particular those with dogs) would increase the chance of negative encounters between the various users (particularly horseback users).

Proposed Action Alternative B:

DNRC would retain the right to manage timber and issue permits and licenses on forest land within the proposed SRUL area. There may be an increase in use of the proposed SRUL area (greater than that under Alternative A). There would be signage at the trailhead and on trails, especially at trail junctions, that would aid in educating users about trail etiquette and sharing the trails and would reduce the chance of negative encounters between various users. Authorizing the proposed SRUL could increase the number of mountain bikers and hikers on the trails, which has the potential to negatively impact the recreation experience for the users of the current commercial equestrian operation SRULs (and therefore the commercial operators) due to more people on the trails and situations that could startle horses (dogs and mountain bikes). There would not be any changes to the other SRULs currently authorized on the proposed SRUL area.

Action Alternative C:

The effects to various uses of the proposed SRUL area would be similar to those under Alternative A, except that there may be a short-term decrease in use by mountain bikers after the free-ride structures and steep sections of trail are decommissioned. Therefore, there could be a short-term decrease in potential negative encounters between mountain bikers and horseback users. However, in general trail

recreation in the Whitefish area is increasing with area growth, and in the long term recreational use by mountain bikers would increase regardless of the removal of these features.

Cumulative Effects (all alternatives):

Under all of the alternatives, there would not be any cumulative effect to various uses of the proposed SRUL. Two commercial horseback riding operations typically apply to DNRC for annual renewals of their licenses , but if the renewals are granted it would not generally indicate that a greater number of horseback riders would be present on the trail network than currently are present.

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16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

None of the alternatives would directly change employment in the area.

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17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

There would not be any effects to local and state tax base or tax revenues under any of the alternatives.

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18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

Existing Environment:

The Twin Bridges Road and current unauthorized parking area associated with the existing trail network is accessed by Highway 93. Highway 93 has a relatively high volume of traffic because it is the main road into and out of Whitefish. The current unauthorized parking area is generally full in summer and fall and on busy days vehicles are parked on the sides of Twin Bridges Road. A parking area off Rifle Range Road is also used but to a limited extent.

Direct and Indirect Effects:

<u>No Action Alternative A:</u>

Traffic to the existing trail network would increase consistent with Whitefish-area growth, but these changes would be negligible when compared to the relatively high volume of traffic on Highway 93 and increased traffic due to area growth. The current parking area would become increasingly crowded, and it would reach capacity more quickly, especially after the portion of the parking area in the SMZ is removed under the Spencer Lake Timber Sale. More drivers may attempt to park their cars on the sides of Twin Bridges Road, which may impede traffic, including emergency vehicles. There would not be a noticeable change in use of the parking area off Rifle Range Road.

<u>Proposed Action Alternative B:</u>

Once the proposed SRUL area comes under the authorized management of the City of Whitefish, traffic increases to the STN would may increase above that which would occur under Alternative A, but these changes would be negligible when compared to the relatively high volume of traffic on Highway 93 and increased traffic due to area growth.

To meet the conditions of the proposed SRUL related to the SMZ and road ROW, the parking area would be reduced by approximately 40 percent and it would serve as the only parking area initially, and then it would become an overflow lot to the new parking lot proposed to be constructed from the Spencer Lake Timber Sale log landing. Until the log landing was no longer necessary for the timber sale, this overflow

lot would remain as the main parking lot. In the short term (approximately two years), this would cause the parking lot to quickly reach capacity, especially on busy days. More drivers may attempt to park on the sides of Twin Bridges Road, which would cause a moderate to major increase in the safety hazard and access difficulties for emergency vehicles. When the landing area associated with the Spencer Lake Timber Sale is available (in approximately summer or fall 2014), the proposed SRUL would authorize this estimated ½-acre area to be used as a parking lot for the STN, and the current parking area would become the overflow lot. This would substantially relieve parking congestion in the existing parking lot and on the sides of Twin Bridges Road, but it is possible that some cars would still park on Twin Bridges Road on busy days. It is unlikely that improving the parking lot on Rifle Range Road would alleviate parking at Twin Bridges Road because these parking lots access different areas of the trail network.

The proposed SRUL would require the City of Whitefish to assume management responsibility of the STN. The City would be supported in their management responsibilities by the Flathead Fat Tire bicycle club, and the WLP, which would include a financial and staff commitment of resources. The City of Whitefish would be committing to this responsibility by entering into the SRUL with the DNRC and would use volunteers from the bike club, WLP, existing staff, or hire staff as necessary (e.g. a trail coordinator); therefore, the demand for services from the City of Whitefish would be a minor effect. In addition, DNRC would have to devote ongoing staff time and resources to administering the land authorization.

Action Alternative C:

The effects to government services would be similar to those under Alternative A.

Cumulative Effects:

There would not be any cumulative effect to the demand for government services under Alternatives A or C. However, there would be a cumulative increase in the demand for City of Whitefish and DNRC resources under Alternative B because of the previous commitment of the City and DNRC to manage several other developed recreation projects in recent years (Section 13).

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19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

Real Estate Management Plan (REMP) (DNRC 2005)

The REMP is the guiding management philosophy of the DNRC Real Estate Management Bureau and embodies three general goals: 1) sharing in expected community growth; 2) planning proactively; and 3) increasing revenue for trust beneficiaries.

State Forest Land Management Plan (SFLMP) (DNRC 1996)

Because the area that would be subject to the land use license is classified Forest Management land, the proposed SRUL is subject to the SFLMP.

Whitefish Area Trust Lands Neighborhood Plan (WTLAC 2004)

The proposed SRUL area is part of the Spencer Mountain Subarea of the WNP. This subarea has specific concepts and implementation strategies that apply to the proposed SRUL, namely the objective of preserving public access to Spencer Mountain for a large variety of users.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

Existing Environment:

The existing trail network is popular with local residents and visitors to the area. The network has approximately 16 miles of existing trail and an additional 1 to 2 miles of existing road that is also being used recreationally. Much of the existing trail network has been further developed over time by mountain bikers, horseback riders, hikers, and motorized recreational vehicles without authorization by, or input from, the DNRC. Some winter use occurs (snowshoeing, cross-country skiing, snowmobiling) but it is less than that in other seasons. One existing unauthorized parking area at Twin Bridges Road, and one parking area off Rifle Range Road, services the trail network.

Any non-motorized use is allowed on this trail network. The DNRC roads that are utilized along with the trails in the proposed SRUL area are generally closed to public motorized use; snowmobile use is allowed November 1 through April 15. Motorized vehicles, including off-road vehicle (ORV) use, is otherwise not allowed any time of the year, but unauthorized ORV use does occasionally occur.

User data is available for fishing use on Spencer Lake. Fishing on Spencer Lake fluctuates from year to year, and did not appear to be increasing or decreasing with time. Fishing use on Spencer Lake is generally lighter than on other area lakes (MFWP 2012) and there is very little boat use because of a lack of boat access.

Direct and Indirect Effects:

No Action Alternative A:

There would not be any improvements to the existing trail network, but the DNRC would continue to monitor the area to determine user-demand and monitor for resource damage, maintenance needs, etc. Unauthorized trail and free-ride structure construction would continue, which would likely not be constructed to the guidelines proposed in the SRUL (Appendix B). Recreational use of the trail network would increase in conjunction with an increase in Whitefish-area growth and the trail network would degrade further. Without management, conflicts could develop between different user groups, and safety concerns in the absence of signage and education would persist.

Proposed Action Alternative B:

The STN would be authorized and the trail network would be improved to ensure resource protection, increase safety, and allow for long-term quality recreation. Fifteen miles of existing trails would be included in the authorization (with a 16-foot wide corridor), as well as 1.2 miles of new trail (including reroutes). Decommissioning of 1.3 miles of trail would occur. Specific trail prescriptions would be applied (Section 3) that would maintain, to the extent possible, the existing difficulty levels on the free-ride trails.

The approximately 16 miles of the trail network (then identified as the STN) authorized under this SRUL may increase the attractiveness of the area for recreation. The increase would be less in winter then in other seasons. Snowmobiling would continue to be allowed during the authorized season (November 1 through April 15).

Trails have the potential to become more crowded, but signage at the trailhead and on the trail system would educate users about appropriate trail etiquette and alert users to potential hazards such as trail junctions. Additionally, the signage would aid in distributing users across the trail network because maps and trail signs would allow people to get further from the trailheads without getting lost or disoriented. The authorization of the free-ride biking trails in an area with many other pre-existing authorized recreational trails might also attract users to these trails who lack the skills to safely ride these trails, which are substantially more technical than the other nearby authorized trails. Signage notifying

individuals of the higher difficulty associated with the free-ride trails would allow users to decide whether they possess the skills to safely ride these trails (Section 14). The attractiveness of the STN may increase more for mountain biking than for other uses, because of the unique nature of the free-ride trails compared to other trails in the area. Authorizing the proposed SRUL has the potential to increase the number of mountain bikers and hikers on the trails, which could negatively impact the recreation experience for the users of the current commercial horseback operation SRULs due to more people on the trails and situations that could startle horses (dogs and mountain bikes). There would be signage at the trailhead and on trails, especially at trail junctions, that would aid in educating users about trail etiquette and sharing the trails and would reduce the chance of negative encounters between various users.

Authorizing the City of Whitefish to actively manage the STN, as it does its other trails, would likely increase education to area users about resource damage and would help encourage users to refrain from unauthorized activities. As stated in the SRUL, if unauthorized trails or structures are identified they would be removed. Fishing pressure on Spencer Lake is not expected to increase, because motorized access is already available and the trail network is not necessary to access Spencer Lake.

Action Alternative C:

The DNRC would decommission excessively steep portions of trails and would remove the free-ride structures, which would reduce the attractiveness of the trail network for mountain bikers that seek out these features. However, based on the history of the proposed SRUL area, it is likely that in the absence of an authorization such as the SRUL the steep trails and the technical structures would be illegally constructed again and without any of the standards provided in Appendix B. This would bring these users back to the trails, but the safety concerns would persist (Section 14).

There could be a short-term decrease in the potential for negative encounters between mountain bikers and horseback users. However, in general trail recreation in the Whitefish area is increasing with area growth, and in the long term recreational use by mountain bikers would increase regardless of the removal of these features.

Cumulative Effects:

No Action Alternative A:

There would not be any cumulative effects to recreation under Alternative A.

Proposed Action Alternative B:

Alternative B would cumulatively add to the (authorized) developed recreation in the Whitefish area. Approximately 30 miles of trail has been constructed, or has been approved to be constructed, related to the Whitefish Trail system (Section 13). Alternative B would cumulatively add 16 additional miles to this developed recreation system (approximately 18.3 miles are already authorized for one recreational use [horseback riding]), an increase of over 50 percent as a result of the SRUL.

Action Alternative C:

There would not be any cumulative effects to recreation under Alternative C.

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21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

There would not be any changes to the density and distribution of population or housing under any of the alternatives.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

There would not be any changes to native or traditional lifestyles or communities under any of the alternatives.

23. UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

Existing Environment:

The existing trail system is unique in the area in that it contains free-ride biking structures and other technical trail features that are not available in the Whitefish area.

Direct, Indirect, and Cumulative Effects:

No Action Alternative A:

There would not be any effect to uniqueness and diversity under Alternative A.

Proposed Action Alternative B:

Alternative B would preserve this unique quality of the STN but would also provide management to protect natural resources and increase the safety of the entire trail network. The SRUL would also provide improvements such as signage and information that would allow users to enjoy the area.

Action Alternative C:

To prevent unauthorized construction and use of free-ride trails, which may not meet the guidelines for safety (Appendix B), the DNRC would remove the free-ride structures as they have done in the past. This would affect this unique quality related to the existing trail network, which could be seen as beneficial or negative depending on the perspective of the user. It is likely that the impact would be short-term, and that the structures would be constructed again in the future.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

Existing Environment:

The DNRC currently manages the land within the proposed SRUL as forest land. Timber management is the primary revenue-generating activity at this time. Two commercial entities hold separate SRULs for horseback riding on roughly 16.7 miles of roads and trails within the proposed SRUL, which historically generate approximately $2,000 per year in income for the trusts. These SRULs are soon to be updated and fees will likely increase to reflect more current market conditions. General recreation use permits for hiking, biking, and horse backing riding on State trust lands cost $10 each ($20/family) and because they are not tied to specific trust land parcels they generate an undetermined amount of revenue each year in the Spencer area.

Direct and Indirect Effects:

No Action Alternative A:

The DNRC would continue to generate revenue for the trusts from commercial timber harvest, general and special recreation use permits, and current and future land use licenses.

Proposed Action Alternative B:

The DNRC would continue to generate revenue for the trusts from timber harvest, firewood permits if applicable, general recreation use permits, and current and future land use licenses. There would likely be an increase in cost and time on managing current and future timber sales in the area, given the complications of arranging logging activities around a recreational corridor. The DNRC would collect fees from the City of Whitefish for a multi-year SRUL (renewable). These include:

- Recreation Use Fee –likely to be comparable with the formula used in calculating the fee for the Whitefish Trail Land Use License;
- Trail Corridor Fee - $200 per mile of trail corridor, or approximately $3,200 for the current estimated length of trail in the project;
- Acreage Fee - rental fee of $0.01171 per square foot (appraised at $8,498 per acre X 6%), for an approximate total annual acreage fee of $612.

Cumulative Effects:

No Action Alternative A:

There would not be any cumulative effects to socioeconomics as a result of Alternative A.

Proposed Action Alternative B:

In conjunction with the Spencer Lake Timber Sale, and other trail authorizations on trust lands in the Whitefish area (Section 18), Alternative B would result in a cumulative increase in revenue to the trusts from the Northwest Land Office of the DNRC.

Action Alternative C:

There would not be any cumulative effects to socioeconomics under Alternative C.

EA Checklist Prepared By:	**Name:**	Stephanie Lauer, JBR Environmental Consultants, Inc.	**Date:**	May 23, 2013
	Title:	Project Manager/MEPA Specialist		

V. FINDING

25. ALTERNATIVE SELECTED:

The Department of Natural Resources and Conservation has completed the Environmental Assessment (EA) for the Spencer Trail Network Special Recreation Use License. In the development of this EA checklist three alternatives were considered:

- Alternative A, no action;
- Alternative B, allow for the licensing of non-motorized recreational use including free-riding and the associated technical trail features; and
- Alternative C, not issuing the license, removing all the technical trail features and disallowing any future construction of these features associated with free-riding, but allowing for continued lawful yet unmanaged general recreational use.

These alternatives were evaluated on their ability to meet the DNRC's mandate of managing school trust lands to generate revenue for the trust beneficiary; protect the future income-generating capacity of the land; and consider effects to the human environment, including health and safety, and environmental factors specific to the site.

After a thorough review of the EA checklist, project file, DNRC policies, standards, and guidelines, I have selected Alternative B for implementation on this project.

I have selected Alternative B for implementation with the understanding that project design and mitigation measures identified in the EA will be applied to meet the intended resource protection.

Alternative B has been selected for the following reasons:

1) Alternative B provides best opportunity to manage impacts from the current recreational use (inadequate parking, trespassing on private land, better location and maintenance of trails and trail features) and minimize adverse effects to the primary use of these lands, which is forest management.

2) It provides a framework to address issues related to health and safety for recreational users and liability protection for both the licensee and the DNRC.

3) DNRC is required to administer these lands to produce the largest measure of reasonable and legitimate long-term return for beneficiaries *(Montana Codes Annotated 77-1-202*). Issuance of this license will allow DNRC to meet this obligation by deriving full market value for the recreational use and managing this recreational use in such a way as to minimize the detrimental impact to forest management revenues.

4) It is in alignment with wants and desires of the majority of recreational users and therefore will create the basis for a cooperative relationship for managing the on-going recreational use between different user groups, the licensee and the DNRC.

5) The selected alternative includes adjustments, mitigations, and activities to address to the extent possible, issues raised by the adjacent landowners, the public at large, and the DNRC. In addition to those items addressed in 1- 4 above, issues identified by the public include:

   a) Licensee's ability to perform:

      As stated in Section 18 of the EA (page 35), the City of Whitefish as licensee would be responsible for performance of the terms and conditions stipulated in the license, but would do so with support from the Flathead Fat Tire Bicycle Club, and the WLP. The licensed activities would presumably be administered by the City's Parks and Recreation Department and would serve as DNRC's point of contact in its administration of the license. The licensed activities would be carried out in accordance with the license, the Trail Management Plan, the Trail Guidelines, and the Operating Plan which were all developed with input from the City and are all attached as supporting documents to the license.

   b) Adverse affects to active forest management, including wildfire hazard mitigation and other traditional

legal uses, such as hunting, snowmobiling, commercial horse operations:

Active forest management and the sale of forest products will continue to be the primary use of the lands within the license area. As stated in Section 1 (page 1) under Project Development, both the North and South Spencer Timber Sales will be conducted in and around the license area as agreed to by the Friends of Spencer and the WLP and as approved by the Land Board. It is a stated objective of the Timber Sales to reduce the fire hazard, through treatment of forest fuel accumulations. Another of the stated timber sale objectives is that forest management activities will be conducted with sensitivity toward the on-going recreational use to minimize potential impacts. It is expected that the trees that will be integral to the trail network (necessary for the technical trail features, anchor, or gateway trees, etc.) that the trusts will be compensated for permanently committing those trees for this purpose.

This license is for non-exclusive use and therefore any activities such as hunting, snowmobiling, general recreational use, or commercial horse operations that were legally conducted and authorized before the license can and will continue after the license is in place.

c) Improved management to decrease user conflict and improve recreational experience:

Redesign and improvements to the existing parking and construction of additional parking will be part of the project design as described in Alternative B under Alternatives Considered, pg 8. The implementation of a Trail Management Plan with specific Trail Guidelines will ensure that monitoring and maintenance will be done on a regular basis resulting in resource protection and a better user experience.

Comprehensive signage and regularly scheduled meetings of the main users (this licensee, the commercial horse operators, and the rifle range lessee) will daylight specific issues and resolutions to be documented and implemented in the Operating Plan. Regular communication between the user groups will facilitate resolving user conflicts early and address issues of mutual concern.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

With the understanding that the project will be implemented with the mitigations identified and discussed herein under Section 25 Alternative Selected, I find that none of the project impacts are regarded as severe, enduring, geographically widespread, or frequent. Further, I find that the quantity and quality of the natural resources, including any that may be considered unique or fragile, will not be adversely affected to a significant degree. I find no precedent for future actions that would cause significant impacts, and I find no conflict with local, State, or Federal laws. In summary, I find that adverse impacts will be avoided, controlled, or mitigated by the design of the project to an extent that they are not significant.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

EA Checklist Approved By:	**Name:**	Greg Poncin
	Title:	Kalispell Unit Manager
Signature: /s/ Greg Poncin		**Date**: May 23, 2013

REFERENCES:

Applied Communications. 2006. Trail Runs Through It Master Plan. August 2006.

Arjo, W.M., D.H. Pletscher, and R.R. Ream. 2002. Dietary overlap between wolves and coyotes in Northwestern Montana. Journal of Mammalogy 83:754-766.

Bull, E. L., and J. A. Jackson. 1995. Pileated woodpecker: Dryocopus pileatus. American Ornithologists' Union. Washington DC. 24 pp.

Brewer, L.T., R. Bush, J.E. Canfield, A.R. Dohmen. 2007. Northern goshawk: Northern Region overview. Key findings and project considerations. Prepared by the Northern Goshawk Working Group, May 2007.

Buskirk, S.W., and R.A. Powell. 1994. Habitat ecology of fishers and American martens. Pages 283-296 *in* Buskirk, S.W., A. Harestad, M. Raphael, eds. Biology and conservation of martens, sables and fishers. Cornell University Press, Ithaca, NY.

Foresman, K.R.. 2012. Mammals of Montana. Second Edition. Mountain Press Publishing Company, July 25, 2012. 440 pp.

Garrott, R., S. Creel, and K. Hamlin. 2006. Monitoring and assessment of wolf-ungulate interactions and population trends within the Greater Yellowstone Area, SW Montana and Montana Statewide. Unpublished report at http://www.homepage.montana.edu/~rgarrott/wolfungulate/index.htm.

Graves, T.A. 2002. Spatial and temporal response of grizzly bears to recreational use on trails. MS Thesis, University of Montana, Missoula, 56 pp.

Heinemeyer, K. S., and J. L. Jones. 1994. Fisher biology and management in the western United States: A literature review and adaptive management strategy. USDA Forest Service, Northern Region, Missoula, Montana. 108pp.

International Mountain Biking Association (IMBA). 2004. Trail Solutions; IMBA's Guide to Building Sweet Singletrack and Managing Mountain Biking. Published 2004.

Johnson, S. 1984. Home range, movements, and habitat use of fishers in Wisconsin. M.S. Thesis, University Wisconsin, Stevens Point. 78pp.

Jones, J.L. 1991. Habitat use of fisher in north-central Idaho. M.S. Thesis, University of Idaho, Moscow, Idaho. 147 pp.

Jope, K.L. 1985. Implications of grizzly bear habituation to hikers. Wildlife Society Bulletin 13: 32-7.

Kunkel, K, T.K. Ruth, D.H. Pletscher, and M.G. Hornocker. 1999. Winter prey selection by wolves and cougars in and near Glacier National Park, Montana. Journal of Wildlife Management. 63:901-910.

Kunkel, K.E., D.H. Pletscher, D.K. Boyd, R.R. Ream, and M.W. Fairchild. 2004. Factors correlated with foraging behavior of wolves in and near Glacier National Park, Montana. Journal of Wildlife Management 68(1):167-178.

Laudon, Kent (MFWP Region 1 Biologist). Personal communication with Stephanie Lauer, December 13, 2012

Lenard, S; J. Carlson, J. Ellis, C. Jones, and C. Tilly. 2003. P.D. Skaar's Montana Bird Distribution, 6th Edition. Montana Audubon, Helena, Montana.

Mace, R.D., and J.S. Waller. 1996. Grizzly bear distribution and human conflicts in the Jewel Basin Hiking Area, Swan Mountains, Montana. Wildlife Society Bulletin 24:461-467.

Maxell, B. A., J.K Werner, P. Hendricks, D.L. Flath. 2003. Herpetology in Montana: a history, status summary, checklists, dichotomous keys, accounts for native, potentially native, and exotic species, and indexed bibliography. Northwest Fauna Number 5. Society for Northwestern Vertebrate Biology. Olympia, Washington. 138pp.

McCallum, D. A. 1994. Review of technical knowledge: flammulated owls. Pages 14-46 *in* G. D. Hayward and J. Verner, tech eds. Flammulated, boreal, and great gray owls in the United States: a technical conservation assessment. USDA Forest Service Gen. Tech. Rep. RM-253. Fort Collins, Colorado.

McLellan, B.N., D.M. Shackleton. 1989. Immediate reactions of grizzly bears to human activities. Wildlife Society Bulletin 17:269-274.

McClelland, B.R. 1979. The pileated woodpecker in forests of the Northern Rocky Mountains. Pages 283-299 *in* Role of insectivorous birds in forest ecosystems. Academic Press.

Montana Department of Fish, Wildlife and Parks (MFWP). 2012. Montana Fisheries Information System. http://fwp.mt.gov/fishing/mFish/ [Accessed December 7, 2012]

Montana Department of Natural Resources and Conservation (DNRC). 1996. State Forest Land Management Plan Environmental Impact Statement and Record of Decision. May 30, 1996.

Montana Department of Natural Resources and Conservation (DNRC). 2005. Real Estate Management Programmatic Plan Final Environmental Impact Statement and Record of Decision. July 18, 2005.

Montana Department of Natural Resources and Conservation (DNRC). 2007. Trail Runs Through It Environmental Assessment. December 2007.

Montana Department of Natural Resources and Conservation (DNRC). 2008. Goguen Land Exchange Environmental Assessment. December 2008.

Montana Department of Natural Resources and Conservation (DNRC). 2009. Trail Runs Through It Phase 1A Environmental Assessment. July 2009.

Montana Department of Natural Resources and Conservation (DNRC). 2011a. Spencer Lake Timber Sale Environmental Assessment. January 2011.

Montana Department of Natural Resources and Conservation (DNRC). 2011b. Whitefish Trail - Phase II, Beaver Lake Checklist Environmental Assessment. May 2011.

Montana Department of Natural Resources and Conservation (DNRC). 2011b. Spencer Lake Timber Sale Environmental Assessment. January 2011.

Montana Department of Natural Resources and Conservation (DNRC). 2012a. Beaver Land Banking Project Checklist Environmental Assessment. June 2012.

Montana Department of Natural Resources and Conservation (DNRC). 2012b. Whitefish Trail - Phase III, Swift Creek Checklist Environmental Assessment. September 2012.

Montana Department of Natural Resources and Conservation (DNRC). 2012c. Beaver-Skyles Public Recreation Easement Environmental Assessment. November 2012.

Montana Natural Heritage Program (MNHP). 2010a. Wetland and Riparian Area Map for Beaver Lake quad. Map dated June 29, 2010.

Montana Natural Heritage Program (MNHP). 2010b. Wetland and Riparian Area Map for Rhodes quad. Map dated June 29, 2010.

Montana Natural Heritage Program (MNHP). 2012a. Natural Heritage Map Viewer. http://mtnhp.org/mapviewer/ [Accessed November 5, 2012]

Montana Natural Heritage Program (MNHP). 2012b. Natural Heritage Data Report for Beaver Skyles Easement EA. Submitted to Stephanie Lauer November 7, 2012.

Montana Natural Resources Information System (NRIS). 1998. Whitefish PM-10 Nonattainment Area Map. NRIS Map 98NRIS248-ak dated August 28, 1998.

Powell, R. 1982. The fisher: National history, ecology, and behavior. University of Minnesota Press, Minneapolis, Minnesota. 217pp.

Raskin, Edward B., Casey J. Clishe, Andrew T. Loch, Johanna M. Bell. 2006. Effectiveness of timber harvest practices for controlling sediment related water quality impacts. Journal of the American Water Resources Association 42 (5), 1307–1327.

Reynolds, R. T., R. T. Graham, M. H. Reiser, R. L. Bassett, P. L. Kennedy, D. A. Boyce Jr., G. Goodwin, R. Smith, and E. L. Fisher. 1992. Management recommendations for the northern goshawk in the Southwestern United States. Management recommendations for the northern goshawk in the Southwestern United States. U. S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, General Technical Report RM-217.

Samson, F.B. 2006. A conservation assessment of the northern goshawk, black-backed woodpecker, flammulated owl, and pileated woodpecker in the Northern Region, USDA Forest Service. Unpublished report.

United States Geological Survey (USGS). 2012. Mineral Resources Online Spatial Data. http://mrdata.usgs.gov/sgmc/mt.html [Accessed November 5, 2012]

USDA Natural Resources Conservation Service (NRCS). Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx [Accessed November 5, 2012]

Waller, J.S., and C. Servheen. 2005. Effects of transportation infrastructure on grizzly bears in northwest Montana. Journal of Wildlife Management 69:985-1000.

Whitefish Trust Lands Advisory Committee (WTLAC). 2004. Montana Department of Natural Resources and Conservation and Conservation Partners, Inc. Whitefish School Trust Lands Neighborhood Plan.

Wittinger, W.T. 2002. Grizzly bear distribution outside of recovery zones. Unpublished memorandum on file at USDA Forest Service, Region 1. Missoula, Montana.

Figures

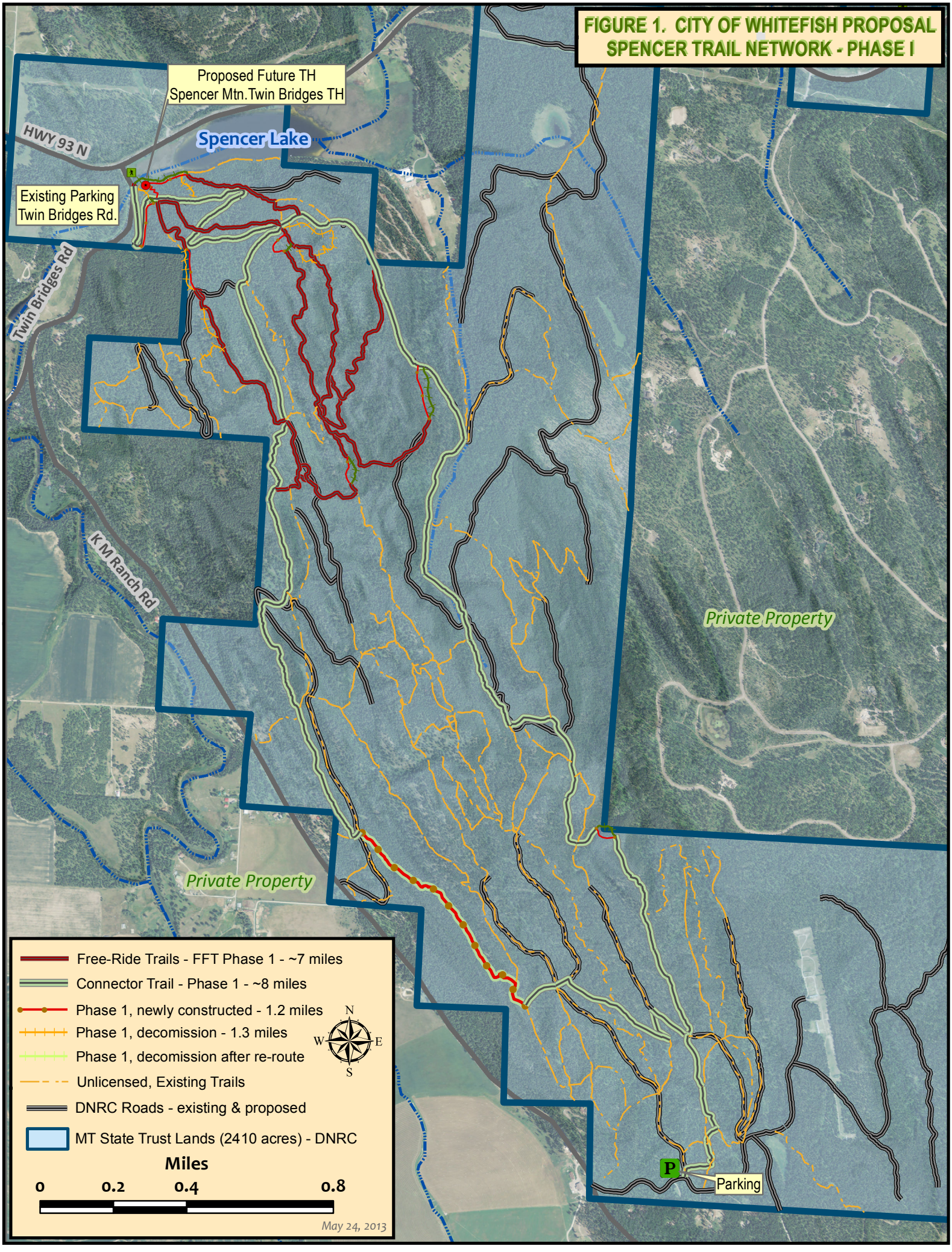
FIGURE 1. CITY OF WHITEFISH PROPOSAL
SPENCER TRAIL NETWORK - PHASE I
Proposed Future TH
Spencer Mtn.Twin Bridges TH
Spencer Lake
HWY 93 N
Existing Parking
Twin Bridges Rd.
Twin Bridges Rd
K M Ranch Rd
Private Property
Private Property
P
Parking
Free-Ride Trails - FFT Phase 1 - ~7 miles
Connector Trail - Phase 1 - ~8 miles
Phase 1, newly constructed - 1.2 miles
Phase 1, decomission - 1.3 miles
Phase 1, decomission after re-route
Unlicensed, Existing Trails
DNRC Roads - existing & proposed
MT State Trust Lands (2410 acres) - DNRC
N
W
E
S
Miles
0
0.2
0.4
0.8
May 24, 2013

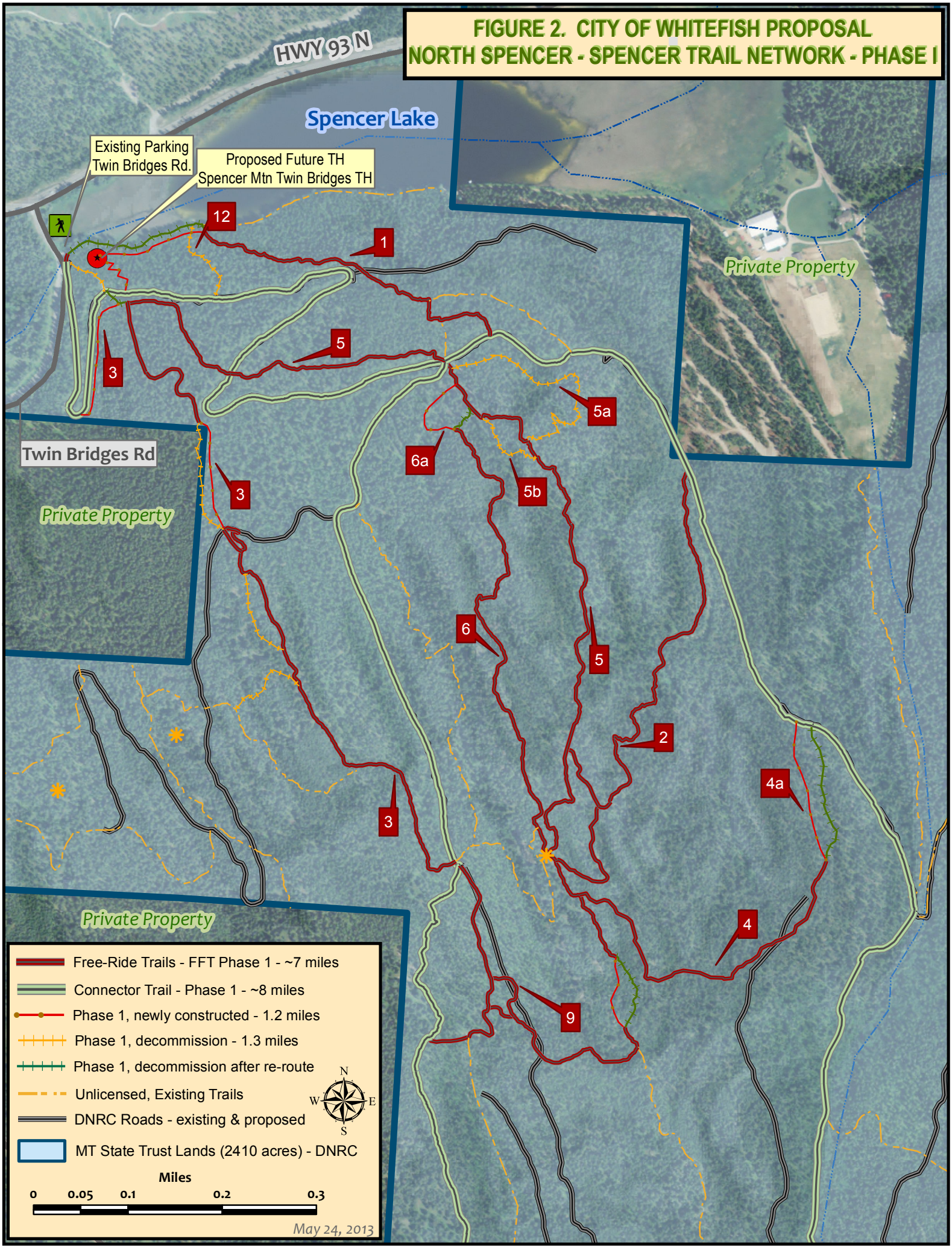
FIGURE 2. CITY OF WHITEFISH PROPOSAL
NORTH SPENCER - SPENCER TRAIL NETWORK - PHASE I
HWY 93 N
Spencer Lake
Existing Parking
Twin Bridges Rd.
Proposed Future TH
Spencer Mtn Twin Bridges TH
Private Property
Twin Bridges Rd
Private Property
Private Property
12
1
3
5
5a
6a
5b
3
6
5
2
4a
3
4
9
Free-Ride Trails - FFT Phase 1 - ~7 miles
Connector Trail - Phase 1 - ~8 miles
Phase 1, newly constructed - 1.2 miles
Phase 1, decommission - 1.3 miles
Phase 1, decommission after re-route
Unlicensed, Existing Trails
DNRC Roads - existing & proposed
MT State Trust Lands (2410 acres) - DNRC
N
W
E
S
Miles
0
0.05
0.1
0.2
0.3
May 24, 2013

Appendix A

Trail Management Plan

TRAIL MANAGEMENT PLAN

This Trail Management Plan ("TMP") will set forth the order in which trail construction, decommissioning, and initial maintenance will take place. This document is meant to be followed in conjunction with the Special Recreational Use License ("SRUL") as well as the Trail Guidelines ("Guidelines") document attached thereto.

Attached to this TMP is a map of the Spencer area trails, including both the Whitefish Trail Connector as well as the Freeride trails. The plan set forth herein shall govern the initial work on the trails so as to bring them into compliance with the Guidelines and the SRUL. Maintenance thereafter shall be performed in accordance with the SRUL and Guidelines.

Projects below are listed in approximate order of priority. The order in which the below work is performed may be altered at Licensee's discretion so long as the two top priority trails get done first (numbers 2 and 3, below). Trails and/or Technical Trail Features ("TTFs") will be closed pending maintenance and construction to achieve compliance with the Guidelines. Trails will be reopened once all TTFs are compliant with Guidelines. In the alternative, specific TTFs may be closed, thus enabling a trail to be reopened where adequate ride-arounds exist or are constructed. The purpose of this restriction is to ensure that non-compliant TTFs remain closed until they meet the applicable Guidelines. Nothing in this document precludes the closing of a trail or feature if it becomes non-compliant with the Guidelines at any point in the future.

Work and maintenance on the Spencer area trails will be performed as follows:

1. Install appropriate signage

In coordination with the Licensor, the Licensee will install signage at trailheads and on all trails encompassed by the SRUL. This includes signs as contemplated by the Guidelines, or in the alternative, temporary signs designating a trail or feature as "closed." Trailhead signage may be temporary in nature given the anticipated revisions to the trailhead.

2. Maple Syrup (upper and lower) (Trail 5 on attached map)

Maple Syrup includes several small wooden bridges to reconstruct to be compliant with the Guidelines. Fall zones appropriate to the TTFs as described in the Trail Guidelines will also be constructed. The trail includes several steep pitches where drainage and erosion issues will be addressed in consultation with the Licensor. This may include water bars, channeling, installing armoring, or re-routing.

The trail also has a section of braided trail at the bottom of "upper" Maple Syrup. An adequate "primary" route will be selected, and alternate "braids" will be decommissioned.

The bottom of Maple Syrup will be re-routed, which is discussed in the “Otter Pop” section below.

3. Otter Pop (Trail 3 on attached map)

A portion of Otter Pop currently trespasses onto private property. Upon prior approval, this section will be re-routed onto land held by Licensor, and the old section of trail will be decommissioned. The new section of trail will be built in a manner that is consistent with the “advanced” designation for the trail.

Otter Pop also features several sections of braided trail. The “primary” trail will remain open, while braids will be decommissioned. The trail also has several substandard wooden features that will be removed. These features will be replaced with Standardized wooden or dirt features. Some wooden features may be braced or otherwise reconstructed so as to bring them into compliance. Fall zones will be created around the various TTF’s on the trail. The dead-end spur trail depicted on the map will also be decommissioned and the associated TTF dismantled.

A reroute at the bottom of Otter Pop and Maple Syrup will be constructed. Otter Pop currently “T’s” into lower Maple Syrup, and both trails then funnel into the skidder trail that runs to the parking lot. Maple Syrup and Otter Pop will be rerouted as shown on the attached map. The re-routed portion of the trail will be consistent with the “intermediate” difficulty of Maple Syrup. It is anticipated that this section will be built with soil moving machinery, the use of which is subject to Licensor’s prior written approval.

4. East Side Connector Trail Trespass (Trail “WT” on attached map, trespass not shown)

A portion f the Connector Trail NW of the Rifle Range trespasses on private property. This section will be re-routed by licensee onto land administered by the licensor, and the old section will be decommissioned.

5. Decommission “Steep” skidder trail from parking lot

The Skidder Trail that runs directly up the fall line from the trailhead / parking lot will be decommissioned by the licensor at the time the log landing/new parking area is created and after a replacement trail with more suitable grade and drainage is constructed.

6. Decommission “No Bikes” (Trail 12 on attached map)

The “No Bikes” trail that runs to the fishing access point on Spencer Lake will be decommissioned to licensor’s specifications by the licensee.

7. Build re-route on Lookout trail (Trail 9 on attached map)

A re-route involving a number of switch backs will be built on the “Lookout” trail that leads to the upper most point of the freeride trail system. The purpose of this re-route is to address the steep and heavily eroded trail that currently exists. Upon completion of this re-route, the old trail will be decommissioned to licensor’s specifications.

8. Flow Factory (Trail 4 and 4a on attached map)

TTFs found on Flow Factory will need to be brought into compliance. It is anticipated that this will primarily involve dirt and rock work, as there are relatively few wooden features on this trail.

The bottom portion of Flow Factory features a steep, eroded trail that will need re-routing. It is envisioned that this re-route will not occur until phase 2 due to anticipated logging in the area.

9. Spooky Pete’s (Trail 2 on attached map)

Spooky Pete’s features numerous wood features that will need to be brought up to compliance with the Guidelines. All TTFs have prominent and well developed ride-arounds. As such, individual TTFs may be closed rather than closing the trail in its entirety. Prior to opening the trail, some ride-arounds and fall zones may need to be cleared. Also, some unavoidable bridges will require reconstruction to bring into compliance with the Guidelines prior to the opening of any portion of the trail. Some steep sections will require attention to drainage. Water bars, channeling, or rock armoring may be used.

The bottom intersection with the East Side road requires a small re-route to minimize trail user conflicts. This re-route should be completed prior to opening the trail.

10. Recess (Trail 6 on attached map)

TTFs found on Recess will need to be brought into compliance. Aside from some clearing for fall zones, it is anticipated that this will primarily involve dirt and rock work, as there are relatively few wooden features on this trail.

The bottom portion of Recess features a steep, eroded trail that will need re-routing. The timing of the new construction and decommissioning will be coordinated with the timber sale to take advantage of favorable conditions where impacts to the new trail will be minimized. Temporary drainage features should be built on this steep section to minimize erosion pending the re-route.

11. Malice in Plunderland (Trail 1 on attached map)

TTFs found on Malice in Plunderland will need to be brought into compliance and ride-arounds and fall zones will need to be constructed. Numerous wooden features will

need to be braced and/or reconstructed. Once ride-arounds are constructed, the trail may be opened with individual TTFs remaining closed pending standardization.

The bottom portion of the trail will require a substantial re-route and must stay at least 50' from Spencer Lake and its outflow. This trail will, as best as possible, maintain the "expert" character of Malice in Plunderland. Ride-arounds will be built as necessary on this trail. The trail will lead to the area of the log landing that is anticipated to be built above the current parking lot and trailhead. It is anticipated that this section will be built using soil moving machinery, however the use of such equipment is subject to Licensor's written approval. Once the re-route is completed, the bottom portion of Malice in Plunderland will be decommissioned.

12. Connector Trail New Construction (Trail "WT" on attached map; new construction not shown)

There is approximately .75 miles of new construction on the West Side Connector Trail to be completed by the licensee. Construction will be to IMBA standards, and the timing will be coordinated with the North and South Spencer Timber Sale activities to take advantage of the earliest and most favorable window of opportunity.

Appendix B

Spencer Lake Free-ride Trail Guidelines

SPENCER LAKE FREERIDE TRAIL GUIDELINES

INTRODUCTION

The Spencer Lake area trails have been in existence for some time, predominantly as unauthorized trails and Technical Trail Features ("TTFs") developed by users. These trails are located on land held in trust by the State of Montana for the purpose of generating revenue for public schools, and are managed accordingly by the Department of Natural Resources and Conservation (the "DNRC"). The primary user groups are hikers, mountain bikers, and equestrians. Several trails (the "Trails"), as designated in the Spencer Lake Freeride Trail Management Plan (the "Management Plan"), will be maintained and overseen by The City of Whitefish, and all goals, policies, and agreements contained therein are incorporated into this document.

The Special Recreational Use License (SRUL) is entered into with the intention of authorizing the Trails in an effort to allow for continued free ride use in the Spencer Lake area, while at the same time addressing environmental, and maintenance concerns. This document is intended to provide Guidelines for Trails and technical trail features (TTFs) that are most frequently used by the free ride biking community. These Guidelines only intended to govern the trails incorporating TTF's that are referenced in the SRUL. These Guidelines are established, in part, in accordance with the provisions of Mont. Code Ann. § 70-16-301 *et seq*. All users of the Trails do so "without any assurance from the landowner that the property is safe for any purpose." All users of the Trails are required to use the Trails and TTFs in a manner that is coordinate with their skill and ability level. These Guidelines are adopted with the knowledge that the Trails exist in a natural environment and that changing Trail conditions may render Trails and/or TTF's unrideable or unsafe at certain times. It is the obligation of trail users to assess conditions and make decisions appropriately. These are adopted in an attempt to mitigate certain risks and improve safety to the extent that is reasonably feasible. However, the implementation of these Guidelines should not in any way be construed as an assurance of the safety of the Trails or the TTFs. Further, this document is not intended to have general or programmatic applicability, but is intended to apply solely to the contractual relationship set forth in the SRUL.

This document will set forth Guidelines by which the Trails will be maintained and improved. The Trails often incorporate TTFs, which require significant maintenance and oversight. TTFs are natural or man-made obstacles or options in the trail or alongside the trail that are intended for mountain bike use and require bike handling skills to ride. They range from easy (such as a 4" rollable drop in the trail or a 3 ft. wide ladder bridge to ride over) to expert (such as a steep rock chute to roll down, a 6" wide ladder bridge to cross, or a 12" high rock step-up to climb up onto). This document is designed to set forth design and construction Guidelines and maintenance Guidelines for such features in order to fulfill the obligations set forth in the SRUL.

The purpose of this document is to provide Guidelines for the Spencer Freeride Trails, while maintaining the existing character of the trails that made them popular. The

purpose is also to provide DNRC with the means to manage this use within the context of its overall mission for these lands which is forest management and revenue production. This document attempts to provide standardized criteria for a recreational experience that is appropriate for public trails on public lands while at the same time recognizing the recreational value of the Trails and TTFs as they presently exist. These Guidelines will apply not only to the maintenance of the existing Trails, but also to the construction of any additional trails that may be built in the future under this land use authorization.

This document is drafted with the recognition that use of the Trails carries inherent risks to the user that can be minimized, but not eliminated. The goal in developing these Guidelines is to warn Trail users of potential hazards and to establish skill level recommendations for individual Trails and TTFs. It is recognized that the activities contemplated by these Guidelines have been taking place in an unlicensed manner in this area for over a decade. By approving these Trails and adopting these Guidelines, the goal is to minimize uncontrolled freeride trail building by providing the Spencer Freeride Trails for these recreational pursuits, while minimizing unnecessary hazards associated therewith, and making this use compatible with other recreational uses and DNRC's forest management activities.

PRIORITIES

Priorities for implementation of this plan are as follows:

1. Incorporate Guidelines to existing Trails and TTFs by order of priority.
2. Maintain Trails and TTFs to Guidelines.
3. Prevent unauthorized trail or TTF construction in licensed area where possible. Initiate efforts for the removal of unauthorized trails / TTF construction.
4. Provide notice to trial users regarding trail difficulty levels so that users may independently exercise judgment and the needed caution regarding which trails to use.

DESIGN FLEXIBILITY

Trails are inherently terrain dependant, and thus a certain level of flexibility is required in developing trail Guidelines. The Trails will be maintained, as closely as possible, in their present, mapped locations. However, it is acknowledged that, at times, it may be necessary to include re-routes of trails or the movement of TTFs. As such, conditions on the ground and materials will determine the exact Trail routing and TTF locations in such situations. Trails will be routed and built according to the Guidelines and specifications described in this document. If DNRC deems that unacceptable resource damage is occurring, it reserves the right to require trail work that may include maintenance or reconstruction to correct the situation. DNRC also may require re-location and decommissioning of problem trail segments.

INCORPORATION OF WHISTLER and IMBA GUIDELINES and STANDARDS

This document is, in large part, based on pre-existing standards and Guidelines. Notably, the "Whistler Trail Standards" provided by the Resort Municipality of Whistler were used as a base for these Guidelines. The Whistler standards are specifically recognized as being relevant to freeride mountain bike trails such as those being licensed here. While the Whistler standards are not a perfect fit for this trail system, they were used to provide many Guidelines in drafting these Guidelines. The International Mountain Bike Association ("IMBA") has also promulgated a series of Guidelines, relative to bike parks and freeriding (http://www.imba.com/resources/freeriding) including "How to Design Challenging Trails", which are incorporated by reference into this document.

If the Guidelines set forth herein are inconsistent with the Whistler or International Mountain Bike Association standards referenced above, these Guidelines shall be deemed controlling.

RISK ASSESSMENT

The following is a description of the key risk assessment techniques and practices that should be used when maintaining and constructing the Trails from IMBA Guidelines. Trails are built and maintained according to established Trail and TTF Guidelines (described herein). Trails and both natural and manmade TTFs must be durable, and designed to moderate the risk of injury when riders fail to negotiate them properly.

- Emphasize Skill Instead of Consequence.
- Provide Options and "Ride-Arounds." When building challenging TTFs, offer easier alternate routes that avoid the feature whenever possible. Don't build advanced technical challenges on trails designed for beginners or intermediates unless they have a ride-around. Offer opportunities for all skill levels.
- Build skill "Gateway Filters." Entrances to difficult trails and TTFs should be made challenging (as difficult as the most challenging mandatory part of the trail or TTF). These gateways will cause inexperienced riders to dismount early, before the TTF is high above the ground where the rider is more likely to be injured should a fall occur. This will reduce the risk of less skilled riders attempting a trail or feature that is beyond their ability. By contrast, wide or easy entrances leading to high or narrow exposed features should be avoided.
- Provide appropriate Fall Zones. Attempt to clear hazards from areas where riders are likely to land from a fall.
- Build "Choke Points." Narrow, difficult and very visible TTFs will slow riders down before a higher risk area. Choke points are built close to the ground with fall zones in case of a fall.
- Design Proper Flow into trails. When possible, avoid abrupt transitions from open and flowing to tight and technical.
- Reduce Surprise. Provide clear site lines and don't surprise trail users with unexpected technical trail features. Challenging trails should be properly signed.

- Make sure that people can see technically challenging trail sections well in advance. The most difficult section of a TTF will be made visible from the entry. By placing the difficult section in view, the rider can make an informed decision before they may get into difficulty with a TTF that may be beyond their ability.
- Mark trails and TTFs according to established Sign Guidelines. Trailhead signs can provide general information about trails and features, but their highest priority is to alert riders to the difficulty level and technical challenges on the trail ahead.

DIFFICULTY LEVELS

The following describes the difficulty rating system used in this document. It describes the general riding experience provided and the types of skills required for each difficulty level.

These ratings are used in setting forth the classification of the Trails. Many of the Trails were in existence at the time these Guidelines were adopted, and thus these classifications were applied retroactively. The Trails exist in a natural environment, and while reasonable efforts are made to maintain the Trails to these Guidelines, natural conditions may affect the Trails in such a way that the obstacles encountered and difficulty of the Trails may change without notice (e.g., trees and/or branches in the trail due to blowdown).

The ratings included herein describe the general types of features to be included on a trail for a given ability level. Trails and the specific features included thereon should be built and maintained in accordance with these ratings. The ratings described herein are relative to one another and may be different from ratings used in other locations. An intermediate trail under these Guidelines may be more or less difficult than intermediate trails found outside of the Spencer recreation area.

Novice (Green Circle)

- Easiest trails; minimum rider skill required.
- Users need to be competent bicycle riders with experience on basic dirt trails and wide natural surface trails such as the Whitefish Trail
- Gentle climbs and easily avoidable obstacles such as rocks, roots and potholes.
- Beginners will find challenges.
- Wide trails with good traction and easy turns.
- Gentle climbs and descents.
- Unavoidable TTFs are easy (such as small roll-able rocks and wide, low to the ground bridges).
- More difficult TTFs are easily avoidable (more difficult TTF will be an optional route off of the main trail, or the TTF will have an easy ride-around option)
- No drops, no jumps and no obstacles with consequences for lack of speed

Intermediate (Blue Square)

- More difficult trails / more challenging riding with moderate slopes and or obstacles, possibly on a narrow trail with mixed traction.

- Users need to be competent bicycle riders and have significant mountain bike experience on singletrack trails such as those found at the Pig Farm Trails.
- Narrower trails with possibility of poor traction and tight switchbacks.
- Steeper climbs and descents.
- Unavoidable TTFs are more difficult (such as roll-able rock drops and roll-able logs, wide bridges, wide log rides, wide teeter totters and small jumps).
- Most difficult TTFs are easily avoidable.
- Small jumps and drops, however no “gap” jumps or drops.
- No jumps with consequence for lack of speed.

Advanced (Black Diamond)

- Very difficult trails providing a challenging riding experience.
- Could include a mixture of steep climbs and descents, loose trail surfaces, numerous difficult obstacles to avoid or jump over, drop-offs and sharp corners. Some sections may be easier to walk.
- Requires significant riding experience and fitness.
- Very narrow trails with the possibility of poor traction, loose trail surfaces, and steeply banked turns.
- Steep climbs and descents.
- Unavoidable TTFs are most difficult (such as narrow elevated bridges and teeter-totters, steep chutes, rock faces, rocky terrain and wall rides)
- Some TTFs may require mandatory “air” (such as drop-offs that are too high to roll, or gap jumps that cannot be rolled).

Expert (Double Black Diamond)

- The most difficult trail classification. Expert trails should only be attempted by highly skilled riders. These trails are intended to provide a challenge for the most experienced riders.
- Exceptional rider skills and balance are essential to clear challenging obstacles or jumps.
- Expert level TTFs must have rollable options or ride-arounds. The use of gateways is of paramount importance for these features.
- Ride-arounds may incorporate “Advanced” level features.
- Trails are intended for primarily downhill traffic.
- Trails will often include Steep descents with sharp transitions
- Trails may include elevated features, many connected features such as rhythm sections that may require speed and/or momentum to successfully negotiate, and frequent mandatory air, including large gap jumps and large drops.
- Difficulty exceeds Advanced due to height, widths and exposure

ENVIRONMENTAL GUIDELINES

The benefits of a trail network for recreational use must be balanced with the desire of protecting our natural environment and maintaining site productivity for forest

management. The parties are actively pursuing environmental sustainability, which can be described as a condition where we use only as much of nature's resources that can be replenished indefinitely. Trail construction must strive for minimal impact on our natural surroundings. Trails, TTFs, and trailheads (trail facilities) that adversely impact the environment will not only have a low aesthetic value, but also incur a high maintenance cost. Trail facilities should be designed with consideration for the specific environment and intended use. All intrusions into the environment have some degree of impact. However, these impacts can be minimized to balance the need for a recreational experience with the impact on the surrounding environment. As many of the Trails already exist, these Guidelines will be used when maintaining and improving the Trails, re-routing the Trails, and for any construction of new Trails that may occur.

General Guidelines include, but are not limited to, the following:

- Avoid sensitive or fragile archaeological or historic sites.
- Deactivate shortcuts by obstructing access with rocks, branches, fallen trees or new plantings. Provide signs, explaining trail closure rationale.
- Avoid building trails in community watersheds.
- Avoid exposing roots or cover exposed roots where possible.
- Trail placement should avoid hazard areas such as steep ravines, bluffs, cliffs, embankments, hazardous trees, snags, undercut stream banks, etc. as may be appropriate for the Trail's difficulty.
- Assess the impacts of trail use on wildlife species.
  Avoid critical habitat of rare or fragile plant species. If there are fragile plant communities next to the trail, delineate the trail edges by using logs or rocks.
- Avoid unstable slopes, erosion-prone soil and shallow rooted trees with high wind-throw potential.
- Avoid trail routing that encourages users to take shortcuts where an easier route or interesting feature is visible. If an interesting feature exists, where feasible locate the trail to provide the desired access to the trail user. Use landforms or vegetation to block potential shortcut routes. Alter the shortcut route if it is superior to the original route.
- Live trees will not be cut without authorization. Cutting of live or dead trees must be approved by DNRC in advance, and approval may be withheld at DNRC's discretion.
- Route trails on bedrock or hard packed surfaces and avoid organic materials.
- Use set cobblestones in sensitive areas and steep descents to minimize trail erosion.
- Use downed Western Red Cedar, Larch or old tight-ringed Douglas Fir for construction material when possible due to their resistance to rot. All such use is subject to prior authorization from DNRC.

These Guidelines are adopted with the understanding that they are applied to an existing trail network, and that the existing trails were not necessarily built using best practices to minimize erosion and other ecological concerns. The potential ecological and environmental impacts include (but are not limited to) soil displacement and

erosion, damage to vegetation, weed infestation, and water quality issues. Over time and with increased use, ecological and environmental issues may arise that require mitigating techniques to be employed on the Trails. These techniques may include rock armoring, installation of water bars, and/or re-routing the Trail. Either party may raise environmental or ecological issues with the Trails, thereby initiating a review process to assess the implementation of potential mitigating techniques. It is envisioned that this will be an ongoing process, and is necessary to preserve the Trail system in a sustainable manner.

Drainage

Trails should be constructed so as to maximize drainage and avoid standing water or persistent wetness in the Trail tread. Where possible, Trails should be designed and graded so as to shed water, and where necessary, water bars should be utilized to direct the water away from the Trail. Primary drainage concerns include steep, straight Trails that tend to become rutted from use and water runoff.

Use Of Machinery

The use of machinery for future projects will be at the sole discretion of DNRC and shall be evaluated on a case by case basis. In the event the use of machinery is approved, additional guidelines may be established for such use. For any machinery that may be used in the future, limited access Trails that penetrate sensitive areas should be constructed manually with materials and equipment that can be easily transported by small work crews. Low impact construction techniques should be employed such as small underinflated, rubber tired vehicles, and construction pads, platforms or cranes. Prefabricated structures that can be manually assembled on site should be used, if necessary.

Mitigation Measures

If resource damage caused by mountain bikes is located, determine the reasons it is occurring and take measures to correct the situation. Consider hardening trails, installing water bars, using seasonal closures, relocating the trail, or recommending alternate routes. Inform riders of the problem and suggest measures they can take to correct the situation. All proposed reroutes or substantial changes in the trail must be approved by DNRC.

TRAIL GUIDELINES

The following describes the guidelines that will be followed for construction and maintenance of Trails and TTFs where possible.

Trail Armoring

Where possible, trail segments that are prone to ruts and erosion from riding will be armored using natural rock, concrete or wood materials. Additional trail armoring may also be used in high impact areas. For example:

- TTF take-offs and landings
- Banked turns (berms)
- 1-man rocks, sandstone pavers or logs may be used as a trail border

TECHNICAL TRAIL FEATURE GUIDELINES

TTFs are natural or man-made obstacles or options in the trail or alongside the trail that require bike handling skills to ride. They range from easy (such as a 4” roll-able drop in the trail or a 3 ft. wide ladder bridge to ride over) to expert (such as a steep rock chute to roll down, a 6” wide ladder bridge to cross, or a 12” high rock step-up to climb up onto).

Strength and Stability

All TTF structures should be built and finished to minimize potential injury to a falling rider colliding with the structure, its supports or other nearby obstacles. The TTF must be capable of supporting a centered vertical load of 450 lbs (three adults) and a horizontal load of a 180 lbs adult leaning against the constructed feature with less than 2 inches of displacement.

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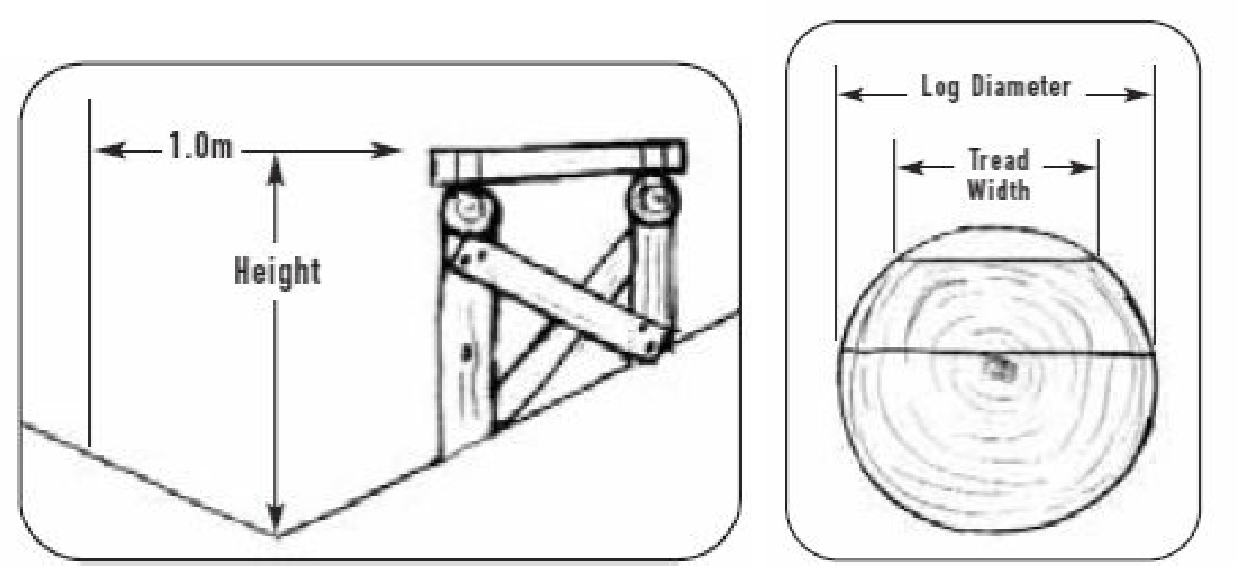
TTF Height And Width

A TTF’s difficulty depends greatly on the maximum height and minimum width of the TTF. Maximum height and minimum width are dependent on the TTF’s difficulty. As the height increases, the risk of injury in the case of a fall increases.

TTF height is measured vertically from the feature’s deck (riding surface) to the lowest point within 3’ adjacent to the feature. Tread Width is the amount of flat rideable surface. The following shows an example of the TTF height and width measurements:



Bridges exceeding maximum height guidelines may require alternate methods such as railings. Note: width of handlebars may be as wide as 35 inches.

Materials should be selected, installed and maintained for durability, strength, riding predictability, aesthetics and environmental acceptability. Select wood that is resistant to decay.

The following materials will be used for TTF construction:

- Stringers: logs, split wood, or dimensional lumber. Posts: logs, split wood, treated posts or dimensional lumber.
- Footings: concrete or rock (2-4”cobble +5/8”- crushed)
- Bridge Decking: dimensional lumber or split wood rungs (see below for preferences)
- Other Decking (Riding Surface) materials: split logs, flattened logs or dimensional lumber planks

Special attention should be given to abutments and places where the TTF touches the ground. In critical areas, untreated wood should generally not touch the ground directly. Use of foundation materials such as rock, or concrete footings is encouraged in such critical areas. Untreated wood may touch the ground in areas that are easily replaced if rot becomes an issue and in areas where the rider transitions from the natural trail bed onto the TTF. Particular attention should be paid to these interfaces during inspection so that rotted wood can be replaced before it becomes a hazard.

The choice of bridge decking material depends on the probability of it getting wet. Split wood has the advantages of a grippy surface and natural look, but dimensional lumber is easier to work with. The following is a partial list in order of preference:

- Split Cedar (most rot resistant, grippy surface, natural look, splits very easily)
- Larch (high strength, grippy surface, rot resistance, natural look, can be difficult to split)

- Split Douglas Fir (high strength, rot resistance, grippy surface, natural look, but difficult to split)
- Dimensional lumber (easiest material to work with)
- Split Pine or Spruce (grippy surface, natural look, splits easily, but less rot resistant)
- Split Hemlock / Alpine Fir (lowest strength and rot resistance, but has a natural look and splits easily – acceptable, but rungs should be thicker and should be taken from older slower growing trees)

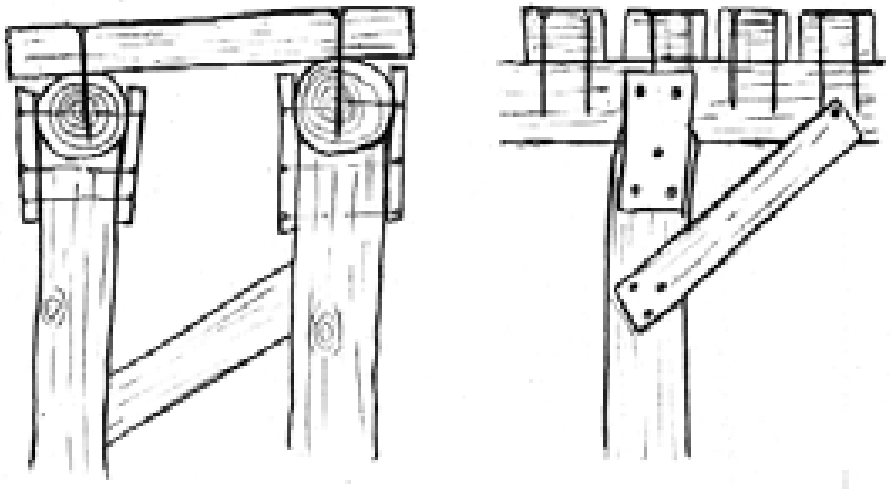
Slippery surfaces such as pressure treated lumber or dimensional lumber should have an anti-slip surface such as diamond wire mesh or roofing material applied to it.

Construction Practices

Cross bracing of vertical members is required. Also, TTFs should not be mounted to living trees because nailing to live trees is harmful to the tree and render them unmerchantable. Notwithstanding the foregoing, certain existing TTFs are already attached to live trees. In certain circumstances, the most feasible option may be to keep those TTFs attached to those standing trees. DNRC reserves the right to authorize such use of trees on a case by case basis, and such use will involve compensating DNRC due to rendering the trees unmerchantable.

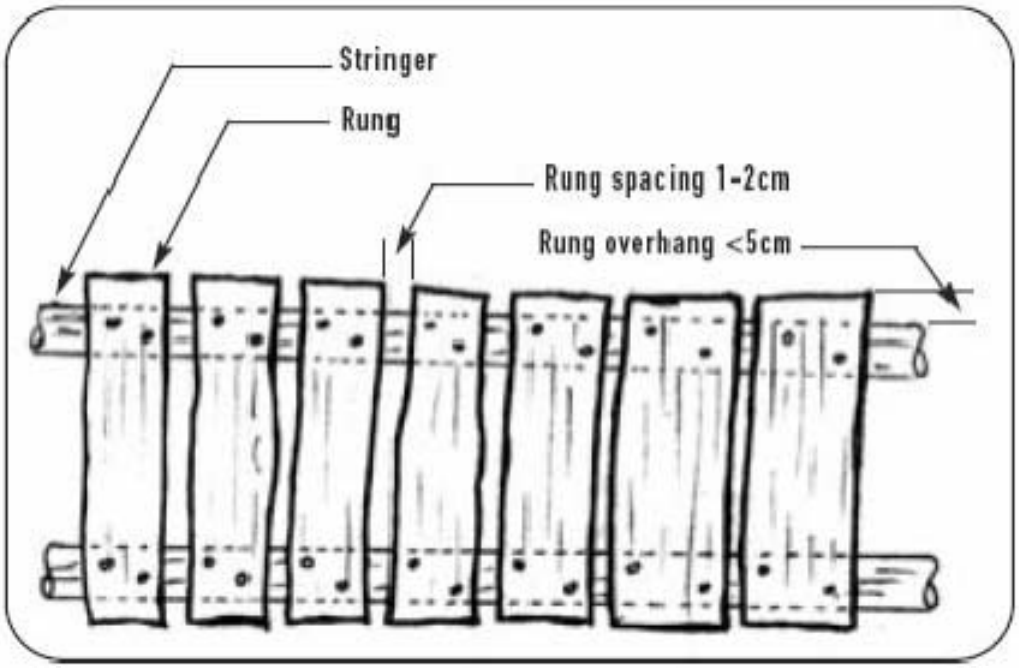
The preferable method of joining members together is nuts and bolts, the second choice is screws and the last method is ardox nails. Ensure two-thirds of the nail or screw length penetrates the stringer. Loading on member should be done in such a way as not to rely exclusively on the shear strength of the joining method. (see figure below)

Wooden features should be stronger and more stable than the the greatest anticipated force and weight. Use cross and diagonal bracing. The strength of the TTF shouldn't rely on the shear strength of the fasteners. The approach to the TTF should be on dry stable ground to help prevent water and mud from being carried onto the wood which can cause deterioration and slippery surfaces.



Bridge Rung Spacing

Deck rungs must be placed tightly so that children will not catch their feet between rungs, arms will not fit between rungs and dogs will use bridges. An appropriate spacing between rungs is 1 inch to promote drainage of water and mud. Rungs should not overhang stringers by more than 2 inches (see figure below).



Bridge Surfacing

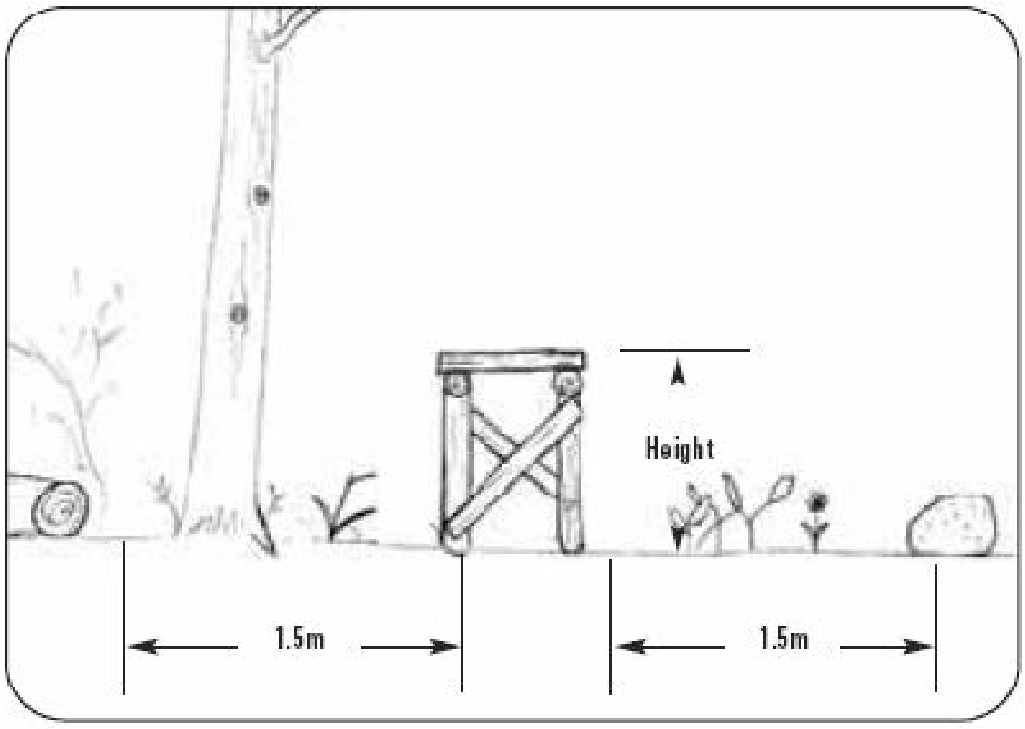
It is recommended that wood surfaces, particularly those with a slope exceeding 10°, have an applied anti-slip surface. The exception being split wood, having a rough surface finish. Recommended methods are expanded diamond lath or rolled roofing material. Chicken wire, although popular, is not durable.

FALL ZONES

The Fall Zone is the area adjacent to a TTF that the rider may deviate into should they fail to negotiate the TTF. Included in the fall zone are the sides of the trail, the bottom of descents and the outside of corners. Risk of injury may be reduced with careful review of the area surrounding the trail. Potential causes of injury are branches or stumps and roots that are not cut flush with the tree or the ground, rocks and debris as well as the TTF itself if it has not been finished to acceptable guidelines. Mountain biking has certain risks that cannot be completely eliminated, and TTFs, particularly advanced TTFs, may increase that risk. All Trail users are expected to pay attention to signage

and proceed with caution. Trail users are also expected to inspect the Trails and TTFs prior to using them so as to assess any potential hazards or risks that may exist.

Fall zones should be cleared of significant hazards to a minimum of 3' on all sides of the TTF up to 12" high and 4.5' on both sides for TTFs that are 12" and higher (see figure below).



Clearing fall zones includes but is not limited to:

- Cutting or digging out any sharp objects
- Trimming tree branches to branch collar or shoulder
- Covering of hazards is another option if material such as rotten logs, bark, mulch, dirt etc. is available. (Areas where falls are frequent may need re-covering).
- Dulling of sharp points or edges of exposed rocks

The fall zone should not be cleared of all foliage, since the purpose of Fall Zone Guidelines is to minimize the chance of injury should a fall occur. Replanting of the fall zone with a durable species may be considered.

The primary focus for fall zone clearing should be in the trails rated More Difficult where a rider is learning how to ride TTFs and their falling skills may not be perfected. The extent of the clearing of fall zones should consider the likelihood and manner in which a fall may occur. Clearing fall zones will generally not include moving large rocks or the removal of live trees. The purpose of clearing fall zones is to address hazards that can be reasonably mitigated, not to remove all potential hazards along the Trails.

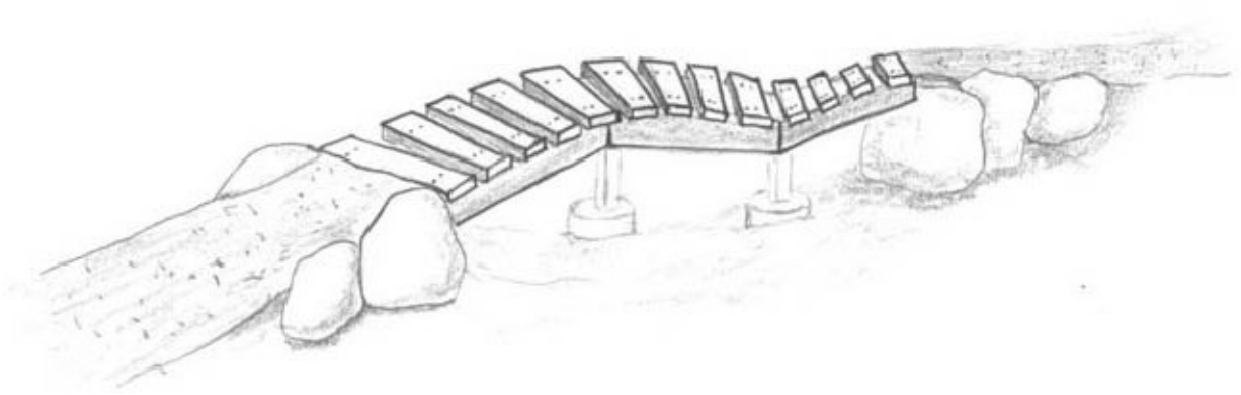
RIDE AROUNDS

Non-rollable TTFs, and TTFs that exceed the marked difficulty of the Trail on which they are located must have a ride around. The ride around must be rollable and the difficulty of the ride around may not exceed the difficulty rating of the Trail on which it is located. For instance, if an advanced feature is found on an intermediate trail, an intermediate ride around must be available.

GUIDELINES FOR SPECIFIC FEATURES

The following Guidelines are applicable to Novice, Intermediate, Advanced, and Expert trails, as indicated below.

Ladder Bridges
Ladder bridges were first used to allow trail users to cross wet areas. Now, they are a common and popular TTF that require certain skills to cross successfully.



Key Not-to-Exceed Specs:

	Novice	Intermediate	Advanced	Expert
Deck Height	< 2 feet	< 4 feet	< 8 feet	<15 feet
Deck Width	> 3 feet	> 2 feet	> 1/4 deck height	At least 20" wide
Bisecting angle between connected sections	Large enough to easily allow transition without wheel lifting techniques	Large enough to easily allow transition without wheel lifting techniques	Tight turn - may require wheel lifting techniques	Tight turn - may require wheel lifting techniques

Skinnies
Skinnies are narrow elevated wooden structures for developing and practicing balance. Balance is a key skill required to negotiate very narrow trail passages and/or trails with

exposure to dangerous falls. Skinnies are similar to bridges, but are intended to be more challenging to ride.

Key Not-to-Exceed Specs:

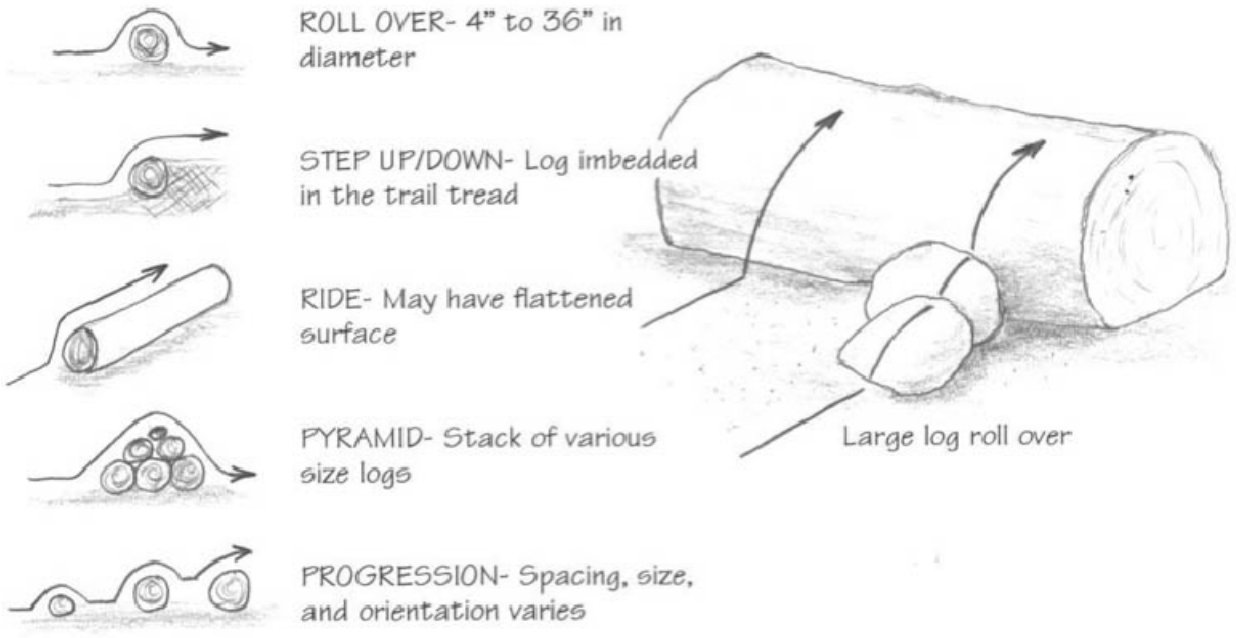
	Novice	Intermediate	Advanced	Expert
Deck Height	N/A	< 2 feet	< 4 feet	<8 feet
Deck Width	N/A	> 8 inches	> 1/6 deck height	At least 6”
Bisecting angle between connected sections	N/A	N/A - straight only	Any turn may require wheel lifting techniques	Any turn may require wheel lifting techniques

Log Rides

Log rides, like skinnies, are used to build and practice balance skills. They may have a narrow rounded riding surface (unaltered), a narrow flat surface etched in the top, or the log may be split in half providing a wider flat riding surface. Logs may be left lying on the ground or elevated by boulders, posts or log rounds with saddle notch joints (“Lincoln Log” joints). Log rides should conform to the same specifications as skinnies, but intermediate log rides may include deck widths of less than 8” for surfaces that are elevated less than 15.”

Other Log Features

Logs are a common natural feature on Trails. TTFs incorporating logs are an acceptable means of addressing logs on Trails, and may be favorable to removal of the logs.



Key Not-to-Exceed Specs:

- Rollovers, step-ups and step-downs: <3 ft. high
- Pyramids (log stacks): < 4 ft. high

Steep Rolls

Steep rolls are a common feature on technical and advanced Trails. These steep rolls are generally of a shorter duration, and therefore are not considered in evaluating the grade of the Trails. The steepness and length of a roll will increase with the difficulty rating of a trail. The pitch and length of the roll will largely depend on the entrance, exit, and surface material of the trail. Steep rolls may be up to 70 degrees on Expert trails.

Drops

Drops may be natural or man-made. The deck height is the height from the end of the deck to the ground. The distance to the landing slope and the angle of the landing slope are determined by a number of factors including the location of the drop, the speed at which a rider will approach the drop, and turns or obstacles that may exist after the drop. Intermediate level drops should be rollable.

Key Not-to-Exceed Specs:

	Novice	Intermediate	Advanced	Expert
Deck Height	N/A	< 2 feet	< 6 feet	<12 feet
Deck Width	N/A	> 2 feet	> 1/2 deck height	At least 18"

Take off Slope	N/A	0% (flat) to 10%	-10% to 30%	+/- 40%

Take off slopes that exceed 30% are considered dirt jumps and should be built according to dirt jump specifications.

Landing slopes should be built appropriately for the size of the drop. Landing slopes should be at least 1.5 bike lengths long. Larger drops require steeper landing slopes. Landing slopes will also be affected by the distance of the gap to the landing. The larger the gap, the shallower the landing slope should be.

Dirt Jumps

The size and dimensions of dirt jumps are dependent on the location of the jump and the intended skill level of the Trail. Dirt jumps on Intermediate trails should be table tops or should otherwise be rollable. Steeper jumps actually slow down riders, so can be used as choke points in a dirt jump flow line. Other types of dirt jumps are Step-Downs (has lower angle take-off and a lower elevation sloped landing), and Step-Ups (where the rider jumps up to a surface higher than the lip/top of the take off). Dirt jumps should be consistent with the character of the trail. Steep dirt jumps should not be included on trails that generally consist of shallow dirt jumps. All dirt jumps should be at least 2.5 feet wide.
Dirt jump height and steepness will depend on the intended trajectory for the jump as well as the intended distance to be travelled. While the specific height and steepness of dirt jumps will largely depend on the situation found on the trail, the following guidelines should be used. The below numbers are guidelines only, and are not intended to be strictly adhered to, for the reasons set forth herein. The gaps specified are assuming flat ground with moderate speed. Downhill situations where more speed is carried into the jump may require longer gaps, and uphill situations may require shorter gaps. All jumps on intermediate jumps must be rollable. Generally, shallower jumps are easier than steeper jumps.

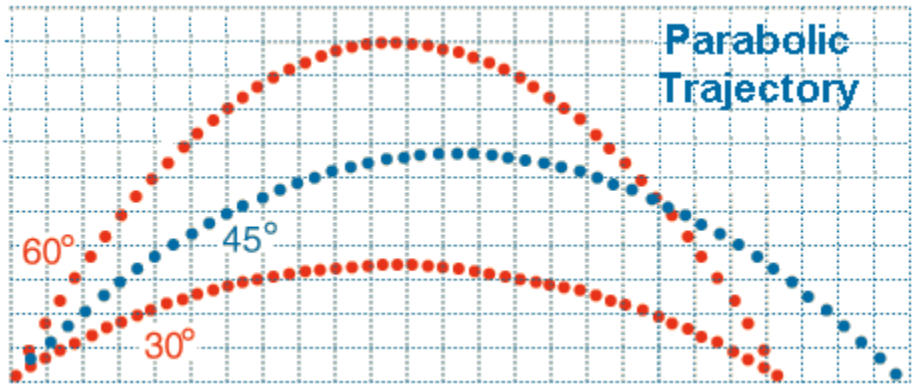
Easy Intermediate: 3 feet tall, 30 degree take off, 8-10 foot gap.

Intermediate: 4 feet tall, 45 degree take off, 10-12 foot gap.

Advanced Intermediate : 4 feet tall, 50-55 degree take off, 10-12 foot gap

Advanced (shallow angle): 5-6 feet tall, 45 degree take off, 16-20 foot of gap
Advanced (steep angle): 5-6 feet tall, 55 degree take off, 12-16 foot gap.

Expert: 6-7 feet tall, 60-70 degree take off, 16+ foot gap.



Dirt jump landings should be at least 1.5 bike lengths long. For step ups, the landing will generally be less steep than the take off. For step downs, the landing will generally be steeper than the take off.

In a rhythm section, the distance from one landing to the next take off should be at least 1.5 times the gap of the jump.

SIGN GUIDELINES

Signs are a necessary component of trail management. Signs provide the rider with general information about the dangers and inherent risks of the recreational trail features. DNRC will approve all signage and their location. In order to retain the "primitive" aesthetic of Spencer Lake, signs visible from main trails will be simple, natural posts with arrows, difficulty icons and numbers that correspond with the main sign at the Twin Bridges parking lot.

The current parking area by Twin Bridges will have an entry sign with a trail map, IMBA Rules Of The Trail, and detailed trail information, including descriptions with the name, character, intent and level of difficulty of the trail (See Appendix XX). The sign will also inform cyclists that any trailwork performed beyond what is allowed in the Special Recreation Use License is illegal and will jeopardize future Freeride opportunities on DNRC land. Recreationalists will be reminded that a general recreation usepermit fee is required for access to state lands outside the Whitefish Trail and Spencer Freeride trail corridor. A brief history of Montana School Trust Lands and the cooperative relationship between the DNRC and recreational stakeholders will be included.

Primary Trailhead Signs

Trailhead signs as necessary will inform the rider of the trail technical difficulty and conditions expected.

Signs at the trailhead displays trail information such as:

- Topographical map of area
- Trail length
- Trail elevation gain / loss
- Trail difficulty ratings

- Explanation of Trail difficulties
- Cautionary notes (i.e. Trails may be more difficult when wet)
- Acceptable trail user groups
- IMBA rules of the trail
- Ride on open trails only
- Leave no trace
- Never spook animals.
- FFT web and other contact information for maintenance concerns or how to get involved.
- Background information on the surrounding area and trails
- Bulletin board
- Fire danger, fire prevention, and who to call in case of emergency
- Provide information about sensitive wildlife species and how to avoid impacting sensitive species such as nesting loons.

Individual Trailhead Signs
These signs are to be located at the entrance(s) of a particular trail to provide the user with the information necessary to make an informed and educated decision whether to proceed or not.

Individual Trailhead Signs display information about a specific trails such as:
Map locator number
Trail name
Difficulty rating
Trail length (distance to next landmark)
Accepted users / restricted users
A written explanation of what the user may encounter on the trail
Alert to and quantity of higher difficulty alternative route NTFs/TTFs if present
Conditions subject to change
Inspect TTFs prior to riding
Trail profile

DEFINITIONS

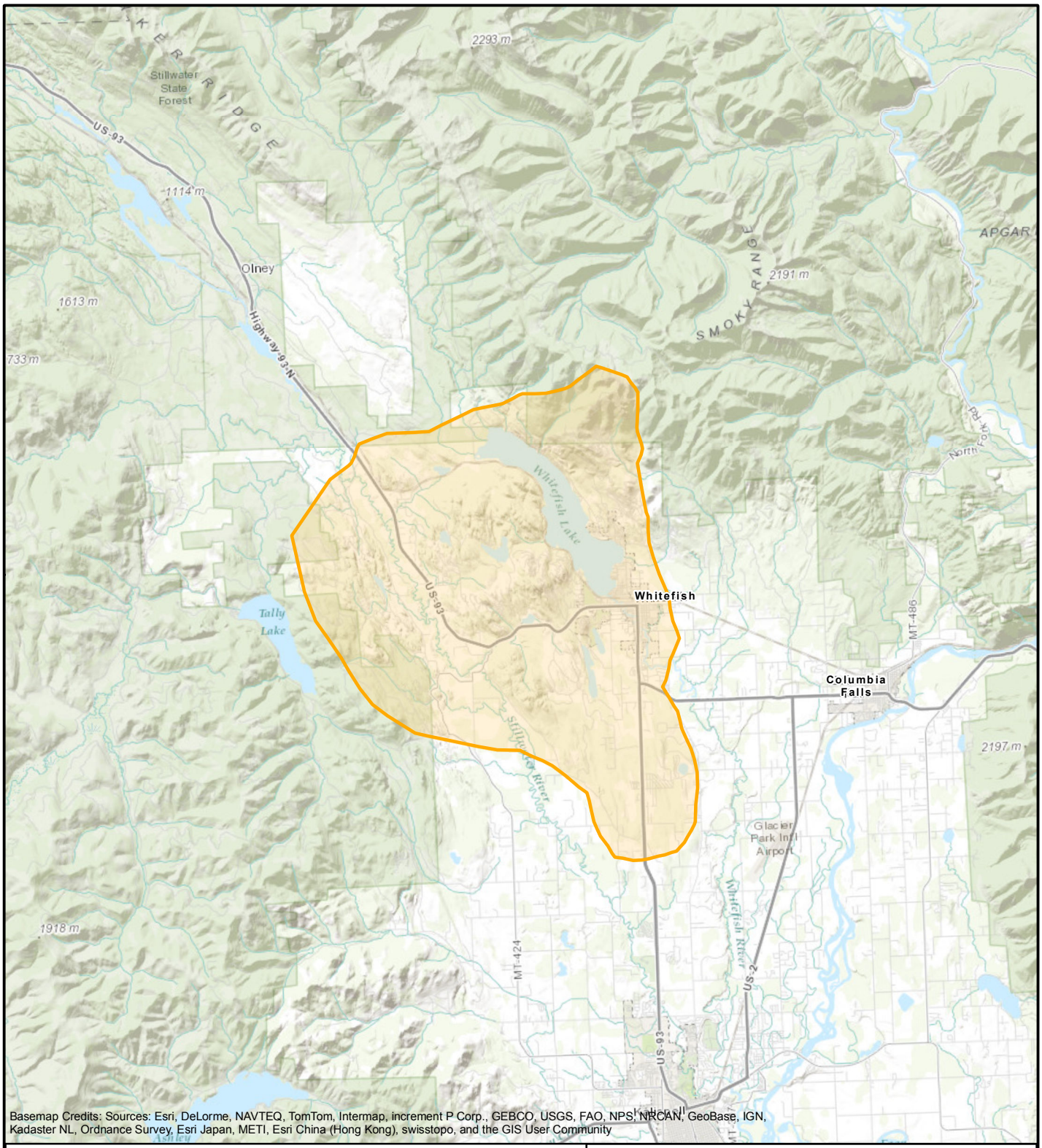
A-Frame – two ramps (approach and exit) placed together with no level section at the apex. Typically used to bridge deadfall across the trail.
Armoring – lining the trail bed with durable materials to resist erosion.
Berm – built up bank on the outside of a corner to improve cornering.
Boardwalk – a raised walkway made of boards; used to traverse sensitive areas; similar to bridge.
Bridge – a structure that is built above and across a river or other obstacle allowing passage across or over obstacle.
Coffin Jump – a jump constructed from material excavated from behind the jump, leaving a hole.
Danger – likely to cause harm or result in injury.

Dirt Jump – A jump with a positively sloped takeoff and a negatively sloped landing constructed of dirt, rocks, and /or logs, intended to allow bikes to become airborne. Dirt Jumps can be Gap Jumps, Table Tops, Step Downs, or Step Ups.
Drop – a drop in the trail, possibly at the end of a log or off a rock; may require a technique depending on the vertical drop and/or the angle of descent. Drops are generally not Rollable.
Exposure – placing a rider in the position or location that an error in balance or maneuvering may result in an injury; for example, a narrow bridge above rocks, would be exposure and the greater the elevation of the bridge above the rocks the greater the level of exposure.
Face – the steep exposed side of a rock.
Fall-Away – a drop-off which incorporates a turn in the trail.
Freeride A category of mountain biking that places an emphasis on skilled maneuvers, difficult descents, jumps, and drops.
Gap Jump – two ramps placed back to back with a space between them, the rider must travel with enough velocity to cross the space and land on the second ramp.
Gateway – a qualifier placed before a trail or TTF; for example, a 2x4 placed before an elevated bridge or a difficult corner. If the rider can successfully negotiate the more difficult gateway, then they will likely be able to negotiate the TTF.
Ladder – a TTF with rungs attached to sides (stringers) made of wood. May function similarly to a bridge, but a Ladder may be inclined at steeper angles (see Roll Over).
Logjam – a pile of logs placed near perpendicular to trail to make a ramp, usually placed in front of and behind deadfall to ease passage.
Machine Built – constructed with the use of an excavator or other such motorized equipment.
Mandatory Air – a TTF requiring a wheelie drop or other advanced technique to exit due to a steep or undercut exit.
Manual – technique used to lift the front end of a bike up without the use of a pedal stroke; can be used off mandatory airs, etc.; generally requires more forward momentum than a wheelie drop.
Ramp – any inclined structure, typically used as an approach to or exit from a TTF. A ramp can also be a jump.
Rhythm Section – series of gap jumps placed end to end. Most technical form of jumping due to skill, timing, technique and failure consequence.
Rollable – a section that can be ridden without requiring higher-level rider skills; for example, an elevated bridge intersection/corner that can be ridden without having to hop and rotate, or a small Drop that can be ridden without both wheels leaving the ground.
Roll Over – usually a rock that gets steeper the farther the rider advances, to the point where stopping may not be an option and the rider must continue despite not being prepared for what's ahead.
Skinny A narrow riding surface, often times a tree or bridge, that is elevated above the normal trail grade.
Step Down – A jump where the landing is at a significantly lower elevation than the take off. A Step Down may be similar to a Drop-Off in some circumstances.

Step Up – A jump where the landing is at a significantly higher elevation than the take off.
Table Top – A jump composed of a take off ramp and a landing ramp, wherein the space between the ramps is filled with dirt, wood structures, or other such ridable materials such that the jump can be “jumped” or rolled without leaving the ground
Teeter-Totter – a TTF consisting of a long plank balanced on a central support for riders to cross over, providing an
down motion as the rider passes over the pivot.
Tongue – a steep ramp on the exit of a TTF, often as an easier alternative to mandatory air.
Tread – the traveled surface of the trail.
TTF – Technical Trail Feature – an obstacle on the trail requiring negotiation, the feature can be either man made or natural, such as an elevated bridge or a rock face respectively.
Wheelie Drop – technique used to pedal off drops-off or logs with the back wheel landing before the front wheel.

Appendix C

Cumulative Effects Analysis Area for Grizzly Bear and Gray Wolf



Legend

Cumulative effects analysis area for grizzly bear & gray wolf (63,257 acres)

N

4 2 0 4 Miles

Montana DNRC Spencer Trail Network SRUL

Appendix C
Cumulative Effects Analysis Area for Grizzly Bear & Gray Wolf

DRAWN BY: NF
DATE DRAWN: 5/13/2013
SCALE: 1 in = 4 miles

Path: X:\MT\Clients\Whitefish_City\Whitefish_Legacy_MEPA\GrizzlyWolfCEA.mxd

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