Close the Loop Trail and Public Recreation Use Easements

Environmental Assessment

Montana Department of Natural Resources & Conservation

January, 2019

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Acronyms

ADA	American Disabilities Act
ARM	Administrative Rules of Montana
BMP	Best Management Practice
BNSF	Burlington Northern Santa Fe
CEAA	Cumulative Effects Analysis Area
CWA	Clean Water Act
DNRC	Department of Natural Resources and Conservation
EA	Environmental Assessment
GIS	Geographic Information System
IMBA	International Mountain Biking Association
IPAC	Information for Planning and Consultation
MBF	Thousand board feet
MEPA	Montana Environmental Policy Act
MFWP	Montana Fish, Wildlife, and Parks
MMbf	***Million board feet***
MNHP	Montana Natural Heritage Program
MSWAP	Montana's State Wildlife Action Plan
NRHP	National Register of Historic Places
NRCS	Natural Resource Conservation Service
REMP	Real Estate Management Plan
TRTI	Trail Runs Through It
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WLP	Wildlife Legacy Partners
WTLAC	Whitefish Trust Lands Advisory Committee

NOTICE OF DECISION

A Department of Natural Resources and Conservation (DNRC) Interdisciplinary Team (ID Team) has completed the Environmental Assessment (EA) for the proposed Connect the Loop and Public Recreation Use Easements.

The project is located 7 miles northwest of Whitefish, Montana in portions of sections, 31, 32, & 33, T32N R22W; and sections 6, 7, & 8, T31N R22W. The State Normal School Trust (MSU-Billings, Western Montana University), MSU Grant and Morrill Grant (Montana State- Bozeman) and the School for the Deaf and Blind Trust (Great Falls) would be the beneficiary institutions of the income generated by this project.

Extensive data collection and reconnaissance of the project area were conducted by Tetra Tech, the contractor tasked with writing and assembling this MEPA document, the DNRC Stillwater Unit staff and the Inter-Disciplinary (ID) Team. The ID Team is a combination of staff from Tetra Tech and the DNRC comprised of wildlife biologists, a fisheries engineer, a hydrogeologist, a hydrologist, environmental scientists, soil scientist archeologist, economist, foresters and administrative staff.

DNRC initiated the public scoping process for this project with a scoping notice posted on the DNRC Website and in the *Whitefish Pilot* and the *Daily Interlake* newspapers. The scoping period was open for 40 days where DNRC along with the City of Whitefish and Whitefish Legacy Partners hosted two open houses on July 13, 2017 and July 27, 2017. 144 letters were sent to adjacent landowners, individuals on the Statewide scoping list, natural resource agencies and other interested parties. Public input received consisted of 19 responses.

In March 2018, a Draft Environmental Assessment was prepared and posted on the DNRC Website. A legal ad was published in the *Whitefish Pilot* and the *Daily Interlake* newspapers and interested parties were notified that the EA was available for review. The comment period was open for 30 days. 65 support comments, 60 open letter signatures and 16 individual comments were received. The final document reflects the incorporated changes as a ~~strikeout~~ and ***bold italics***. You will notice the Economics Section 3.8 has been entirely rewritten but does not appear in bold italics. After further review, not enough of the “draft” language remained in Economics to show the reader what was stricken out. For comparison, a copy of the draft Economics section is available upon request from our office.

The issues and concerns identified through the public scoping, ID Team work and Draft EA were summarized and used to further refine the project. After a thorough review of the EA, project file, public correspondence, Montana Statutes, Montana DNRC Forested State Trust Lands Habitat Conservation Plan (HCP), Real Estate Management Plan (REMB), State Forest Land Management Plan (SFLMP), Whitefish Neighborhood Plan, Whitefish Trail Management and Operations Plan and adopted rules, I have made the following 3 decisions:

(1) Alternative Selected

Two alternatives are presented and were fully analyzed in the EA:

- Under **No-Action**, the State of Montana would <u>not</u> grant the City of Whitefish a

Close the Loop Trail Easement, a Public Recreation Use Easement, or a Swift Creek Trail permanent easement on the state trust land shown on Figure 1.

These trust lands would remain as land managed by the DNRC for forest management, development and other revenue generating activities. The DNRC would continue to allow dispersed and developed recreation from existing trails and trailheads.

- Under the **Proposed Action**, the Proponent (City of Whitefish) would purchase from the State of Montana an easement for a Close the Loop Trail, an easement for a new Public Recreation Use Area, and an easement for the land currently licensed as the Swift Creek Trail (Figure 1 and Figure 2). The DNRC would retain the fee title to, and overall management of the land within the easement. DNRC would also continue to manage the land for commercial timber and resource conservation and for current and future land use licenses.

On behalf of the DNRC I have selected the **Action Alternative**.

Rationale for Alternative Selected

With considerations to the following rationale, I have selected the **Action Alternative**:

- The Action Alternative meets the **1.3 Purpose and Need for the Proposed Action** as stated in the EA (page 6).
- The analyses of identified issues did not reveal information to persuade DNRC to choose the No-Action Alternative.
- The Action Alternative did not reveal major effects to potentially affected resources.
- The project design with its associated mitigations minimizes effects on potentially affected resources while providing a high quality non-motorized recreational experience in close proximity to the Whitefish community.
- The lands involved in this project are held by the State of Montana in trust for the support of specific beneficiary institutions. DNRC is required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run *(Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11;* and *77-1-202, Montana Codes Annotated [MCA])*. The SFLMP and associated rules provide the management philosophy and framework to evaluate which alternative would maximize real income while sustaining the production of long-term income.
- This project was designed to provide revenue to the trust beneficiaries while allowing their primary purpose, forest management, to continue along with other stacked uses such as land use licenses and special recreational use licenses.
- On March 13, 2003, DNRC adopted Administrative Rules for Forest Management (Forest Management Rules ARM 36.11.401 through 456). This project is designed in accordance with these rules.
- On July 18, 2015, the DNRC adopted the REMP through a Final Programmatic Environmental Impact Statement Record of Decision. The REMP provided policy,

direction, and guidance in the selection and management of real estate development on Montana's trust lands. The REMP embodies three general goals: (1) sharing in expected community growth; (2) planning proactively; and (3) increasing revenue for trust beneficiaries. This project is designed in accordance with this plan.

- An estimated 2.8 to 3.8 million dollars in revenue would be earned for the State Normal School Trust (MSU-Billings, Western Montana University), MSU Grant and Morrill Grant (Montana State- Bozeman) and the School for the Deaf and Blind (Great Falls) trusts. These proceeds would be invested in the Permanent Fund and would become an annual source of revenue for the trusts.

(2) How the Chosen Alternative Addresses Concerns and Issues

The Action Alternative includes mitigations to address the concerns expressed by the public and the ID Team. All mitigations as listed in this EA apply; however, I have highlighted many of these mitigations (below) to emphasize their relevance in my decision-making process. Furthermore, I have added additional requirements, in specific cases, to further minimize potential impacts to specific resources.

Soils (3.1)

Impacts to soils are <u>low</u> when the following mitigations are implemented:

- *Use soil erosion and surface water management BMPs.*
- *Salvage topsoil before trail construction to help minimize soil compaction and loss of the topsoil.*
- *Avoid lower lying depressed areas where water would tend to collect and pond when locating the trail.*
- *The Proponent will consult with DNRC managers and resource specialists to locate and install small bridges over ephemeral streams as needed.*
- *Minimize the angle of the disturbed backslope in the trail design.*
- *All disturbed soils should be reseeded within seven days of construction and trail use during wet periods should be limited.*

Vegetation (3.2)

Forest, Shrub and Herbaceous plants

Impacts to **Forest, Shrub and Herbaceous plants** are <u>low</u> when the following mitigation is implemented:

- *Trail location would be established where possible to avoid the removal of large anchor trees (largest trees in the area).*

Sensitive Plants

Impacts to **Sensitive Plants** are unknown at this time, however, the following mitigations would be implemented:

- *Conduct a sensitive plant survey and if possible route trail and move proposed infrastructure around sensitive plant locations.*
- *Follow mitigations described in Wetlands.*

Noxious Weeds

Impacts to Noxious Weeds would be low when the following mitigations are implemented.

- *Grass seed mix prescribed by the DNRC would be used for trail cut slopes and wasted material.*
- *Bare soil should be seeded within seven days to stabilize soils and reduce the risk of weed infestations.*
- *Monitor for the spread of noxious weeds and treatment per Montana County Noxious Weed Management Act, Mont. Code Ann., 7-22-2101, et seq, as needed. DNRC would approve 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.*

Water Resources (3.3)

Surface Waters

Impacts to Surface Waters are low when the following mitigations are implemented:

- *Signage emphasizing importance of staying on the trail, especially at stream crossings.*
- *New trail segments would be built according to the IMBA standards and applicable BMPs to minimize or eliminate these impacts to water resources.*
- *Construct bridges in the fall, during historically low stream flow and after obtaining the appropriate Fish, Wildlife & Parks 124 permits.*
- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors.*

Stream Channel Characteristics at Proposed Stream Crossings

Impacts to Stream Channel Characteristics are low when the following mitigations are implemented:

- *During the preliminary design phase, channel floodplain features must be field verified to define the bank full flow channel widths and 100-year floodplain extents.*
- *Place bridge abutments on banks or terraces above or outside the 100-year floodplain.*
- *Install abutments in a stable stream reach that is not currently undergoing lateral migration of the primary stream channel.*
- *Install piers on an intermediate bank above or outside the bank full flow channel but can be within the 100-year floodplain.*
- *Maintain vegetation on the intermediate bank surrounding the pier at the current or higher density.*
- *Carefully choose stream crossing locations for construction equipment to minimize impacts to the stream banks, floodplains, and active stream channel.*
- *Clean equipment tracks and tires before channel crossings to reduce increased short-term turbidity.*
- *If possible, use the existing bridge infrastructure remaining at Lazy Creek to build a temporary bridge to move construction equipment across the creek.*
- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors*

Wetlands

Impacts to **Wetlands** are low when the following mitigations are implemented:

- *The wetlands in the Close the Loop Trail analysis area have not been field-delineated or surveyed, but were mapped using information from the Montana Natural Heritage Program and aerial photographs. The wetlands and waters of the U.S. must be delineated using standard USACE procedures, and the delineation boundaries surveyed before the final alignment of the trail is decided.*
- *Elevated boardwalks will be the primary structure to cross over wetlands (freshwater, riparian and riverine). This mitigation would minimize impacts to the wetland characteristics and habitats provided by the hydric soils, wetland hydrology, and hydrophytic vegetation. Other trail building methods may be considered and approved by DNRC Managers and Specialists.*
- *"Construction mats or equivalent" must be installed on the wetland for the construction equipment to travel across. The mats are installed directly in the wetland with the large surface area preventing the mat from sinking when the construction equipment is driven over them. When work is complete, the mats are removed from the wetland.*

- *The trail easement would be 16-feet wide but would have some flexibility to move to avoid certain areas such as wetlands.*
- *Bridge and trail construction would occur during times of historically low stream flow.*
- *Soft and natural landscaping practices (emplaced trees, rocks, etc.) at water crossings would help keep hikers on the trail.*
- *Construction BMPs to limit off-site sedimentation during construction would be implemented.*
- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors.*

Wildlife and Fish (3.4)

General Wildlife

Impacts to **General Wildlife** are moderate when the following mitigations are implemented:

- *Install signage describing sensitive wildlife, discouraging off-trail use, managing dogs, and proper trail behavior, leash requirement for dogs on the trail between Swift Creek and Lazy Creek*, and seasonal gated closure of trails through or near sensitive habitat areas in the spring and early summer months.*
- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors.*

  ** see* **FURTHER REQUIRED MITIGATIONS FOR WILDLIFE** *below* for additional mitigations

Fish

Impacts to **Fish** are low when the following mitigations are implemented:

- *Follow mitigations for Stream Channel Characteristics at Proposed Stream Crossings.*
- *Construct bridges in the fall, during historically low stream flow.*
- *During construction, implement construction site sediment and erosion control BMPs.*
- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors*.

Big Game

Impacts to **Big Game** are moderate when the following mitigations are implemented:

- *Install signage discouraging off-trail use, managing dogs, proper trail behavior, and leash requirement for dogs on the trail between Swift Creek and Lazy Creek. **
- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors.*

  ** see* **FURTHER REQUIRED MITIGATIONS FOR WILDLIFE** *below for additional mitigations*

Threatened, Endangered and Sensitive Species

There were no known Endangered Species analyzed by this proposal.

Threatened Species

Canada Lynx

Impacts to **Canada Lynx** are low when the following mitigations are implemented:

- *If a lynx den site is discovered near the trail, the Proponent will work with DNRC and other agencies on appropriate management of the area to minimize den disturbance.*

Grizzly Bear

Impacts to **Grizzly Bear** are moderate when the following mitigations are implemented:

- *Remove or impede access to attractants (such as food and trash), and install signage educating users on the importance of proper trash disposal in grizzly country and packing out trash where cans are not available.*
- *Provide bear-proof trash at the new trailhead.*
- *Provide public education and signage discussing bear presence and appropriate behavior while using trails in grizzly bear country (e.g., carrying bear spray, leashing dogs, avoiding using off-trail areas, and traveling in groups of four or more).*
- *Install signage specific to safe mountain biking in grizzly bear habitat.*
- *Design trail to reduce the risk of bear encounters, to include increasing sight distances for mountain bikers and incorporating features that would discourage high speeds.*
- *Conduct annual maintenance that reduces or removes understory vegetation within the 16-foot-wide trail easement to increase sight distances immediately adjacent to the trail.*
- *Implement leash requirement for dogs on the trail between Swift Creek and Lazy Creek.**
- *Implement seasonal trail gated closures during the spring period.*

- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors.*

  ** see **FURTHER REQUIRED MITIGATIONS FOR WILDLIFE** below for additional mitigations*

Bull Trout

Impacts to **Bull Trout** are low when the following mitigations are implemented:

- *See mitigations for **Fish**.*
- *Follow Fish, Wildlife & Parks 124 permit requirements for construction activities in and around Swift Creek during fall Bull Trout spawning.*

Sensitive Species

Common Loons

Impacts to **Common Loons** are moderate when the following mitigations are implemented:

- *Construct trails near Boyle Lake outside of the loon nesting season (April 1 to July 15).*
- *Relocate trails near Boyle and Smith lakes farther away from the lake shore and behind more vegetative screening.*
- *Install signage and educational information at trailheads focusing on loons and nesting waterfowl.*
- *Implement leash requirement for dogs around Boyle Lake.**
- *Implement spring gated closure of trails within 500 feet of common loon nesting areas.**
- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors.*

  ** see **FURTHER REQUIRED MITIGATIONS FOR WILDLIFE** below for additional mitigations*

Gray Wolves

Impacts to **Gray Wolves** are moderate, when the following mitigations are implemented:

- *If wolf dens or a rendezvous site are discovered in the analysis area, implement mitigations (e.g. trail closures) to minimize disturbance to breeding wolves and to provide for public safety.*
- *Consider mitigations to reduce impacts on big game prey.*
- *Install signage encouraging proper control of dogs, including mandatory leashing on certain trail segments. **

- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors.*

  ** see **FURTHER REQUIRED MITIGATIONS FOR WILDLIFE** below for additional mitigations*

Harlequin Ducks

Impacts to **Harlequin Ducks** are low when the following mitigations are implemented:

- *Bridge construction over Swift Creek will occur outside of the harlequin duck nesting season, April 1 to July 15.*
- *Install signage discouraging off-trail use, managing dogs, and proper trail behavior.*
- *The Proponent will work with DNRC and other agencies on trail design and management of the trail corridors.*

FURTHER REQUIRED MITIGATIONS FOR WILDLIFE:

Seasonal Spring Restrictions

Historically, there has not been a substantial amount of use by the public between Boyle Lake and Swift Creek due to lack of easy access. This has been a benefit to the habitat and security of the wildlife which use it. Thus, the following mitigations apply:

- *Install a gate on the BNSF bridge location (south of Boyle Lake) and the bridge crossing over Swift Creek for seasonal spring restrictions.*
- *A seasonal spring restriction for trail use will apply in the area between the BNSF bridge south of Boyle Lake to the bridge over Swift Creek. The dates for this restriction are from April 1st to June 30th of each year.*
- *Install signage to inform and educate the public on reasons and importance of this springtime restriction for wildlife habitat and security.*

Dog Management

Dogs are great companions but can impact wildlife to a greater degree than humans alone as is pointed out by this analysis. As with human use in this area, there has not been a substantial amount of use by dogs in this area due to lack of easy access. This has been a benefit to the habitat and security of the wildlife which use it. Furthermore, mitigations need to be enforceable which can be challenging as “control” of a dog can vary from owner to owner. Thus, the following mitigations apply.

- *Dogs will not be allowed between the BNSF bridge crossing (south of Boyle Lake) and Swift Creek bridge crossing.*
- *Install signage to inform and educate the public on reasons and importance of this restriction for wildlife habitat and security.*

Cultural Resources (3.5)

The project would result in no effect to State-owned Heritage Properties.

Recreation (3.6)

Development of the trail system would increase the overall use of the area. The increase in use would be moderate. Conflicts between user groups such as hunters, snowmobiles and disc golfers are expected to be low. The following mitigations are implemented to manage the trail and recreational user experience.

- *Update and follow Whitefish Trail Management and Operations Plan or other relevant plans.*
- *The final location and design of the preliminary locations of the trailhead, additional parking, a pavilion and day use site, new trails, and five bridges features as identified on Figure 1 would be finalized after consultation with DNRC managers and resource specialists*.
- *The Smith Lake Pavilion and interpretive area would be located away from the dam and spillway of Smith Lake and a fence would be constructed along the perimeter of the outlet to protect the integrity of the earthen dam and prevent resource damage from dispersed use.*
- *Update and follow the Smith Lake Dam Emergency Action Plan.*

Safety (3.7)

Human Health Liability

Under the Montana Recreational Use Statute (70-16-302 MCA), landowners are not liable for injuries caused by public recreational use except for injuries caused by willful or wanton misconduct. Because of the limited liability established by statute, the increased human use would result in no increase in liability for the State or the Proponent.

Trespass

There would be a low likelihood of trespassing on private ground.

- *The Proponent would install signage, in appropriate locations as necessary, that indicates nearby private property and encourages trail users to stay on the established Whitefish Trail corridor*.

Wildlife

Impacts to human safety around wildlife would be low when the following mitigations are implemented.

- *See mitigations for Grizzly Bears.*

Fire

There would be a low increase in human caused fire ignitions with increased use of the area.

- *Signage would be required at trailheads to inform users about trail use safety and fire prevention.*

Traffic

Traffic would see a moderate increase as people access the trailheads.

- *Starting in 2019, DNRC would participate with the City of Whitefish and the County in collecting and monitoring traffic count data at main trailheads. Data would be shared with Flathead County and would be utilized in updating traffic management to relevant plans.*

- *Update and follow Whitefish Trail Management and Operations Plan or other relevant plans.*

Economics (3.8)

Granting the easements would generate approximately 2.8 to 3.9 million dollars in revenue that would be invested in the Permanent Fund and would become an annual source of revenue for the trusts. In addition, the parcels would continue to generate revenue for the various trust beneficiaries from timber harvest activities, firewood permits, easement grants and other miscellaneous licenses and permits.

Future Planning and Implementing of the Connect the Loop Project

This will be a challenging project due to its many moving pieces. Due to this complexity, the proponent will work with DNRC to submit a plan on how to implement this project. This plan, approved by DNRC, should provide, but is not limited to, time lines, trail, bridge and boardwalk design, construction, and conversion of current licenses to easements.

Significance of Potential Impacts

For the following reasons, I find that the Action Alternative will not have significant impacts on the human environment, as:

- There is no conflict with local, State, or Federal laws, requirements, or formal plans.
- No impacts are regarded as major, geographically widespread, or frequent.
- Due to the mitigations listed in this Environmental Analysis, the quantity and quality of various resources, including any that may be considered unique or fragile, will not be adversely affected to a significant degree.
- There is no precedent for future actions that would cause significant impacts.

In summary, I find that the identified low to moderate impacts will be avoided, controlled, or mitigated by the design of the project to the extent that the impacts are not significant.

(3) Need for Further Environmental Analysis

Based on the following considerations, I find an EIS does not need to be prepared, as:

- The EA adequately addresses the issues identified during project development and displays the information needed to make the decisions.
- Evaluation of the potential impacts of the Close the Loop and Public Recreation Use Easements Project indicates no significant impacts would occur when the mitigations are applied.
- The ID Team provided adequate opportunities for public review and comment. Concerns received from the public as well as those identified by the resource specialists involved were addressed in project design and the analysis of impacts.

	EIS			More Detailed EA	**X**	No Further Analysis

Environmental Assessment Approved By:

Name: Dave Ring
Title: Stillwater Unit Manager
Date: January 15, 2019
Signature: *\/s\/ David A. Ring*

1.0 Introduction and Purpose and Need

This Environmental Assessment (EA) discloses the effects of the proposed Close the Loop Trail Easement, Public Recreation Use Easement, and the Swift Creek Trail conversion from license to permanent easement under the requirements of the Montana Environmental Policy Act (MEPA).

On March 14, 2017, the City of Whitefish (Applicant), acting in conjunction with Whitefish Legacy Partners (WLP), submitted a proposal for a 16-foot-wide, 17.5-mile-long Close the Loop Trail Easement on approximately 35 acres of state trust land managed by the Montana Department of Natural Resources and Conservation (DNRC). The proposal included both new trail construction and conversion of the existing Swift Creek Trail license to a permanent easement.

Then, on June 6, 2017, the City of Whitefish, acting in conjunction with WLP, submitted a supplement and revision to the March 14, 2017 proposal. The supplemental application provided additional information about the trail, reduced the proposed trail mileage, and added a Public Recreation Use Easement on 480 acres of state trust land.

On December 1, 2017, the City of Whitefish, again acting in conjunction with WLP, provided additional technical information for the proposed Close the Loop Trail and Public Recreation Use Easements. The proposed Close the Loop Trail Easement would include the area between the Swift Creek and North Beaver Trailheads and the Public Recreation Use Easement would be located east of the Swift Creek Trailhead in the Smith Lake area. The Swift Creek Trail is located on the northern end of the proposed Close the Loop Trail and west of the proposed Public Recreation Use Easement.

The areas proposed for the easements are located in Flathead County northwest of Whitefish, Montana (Figure 1).

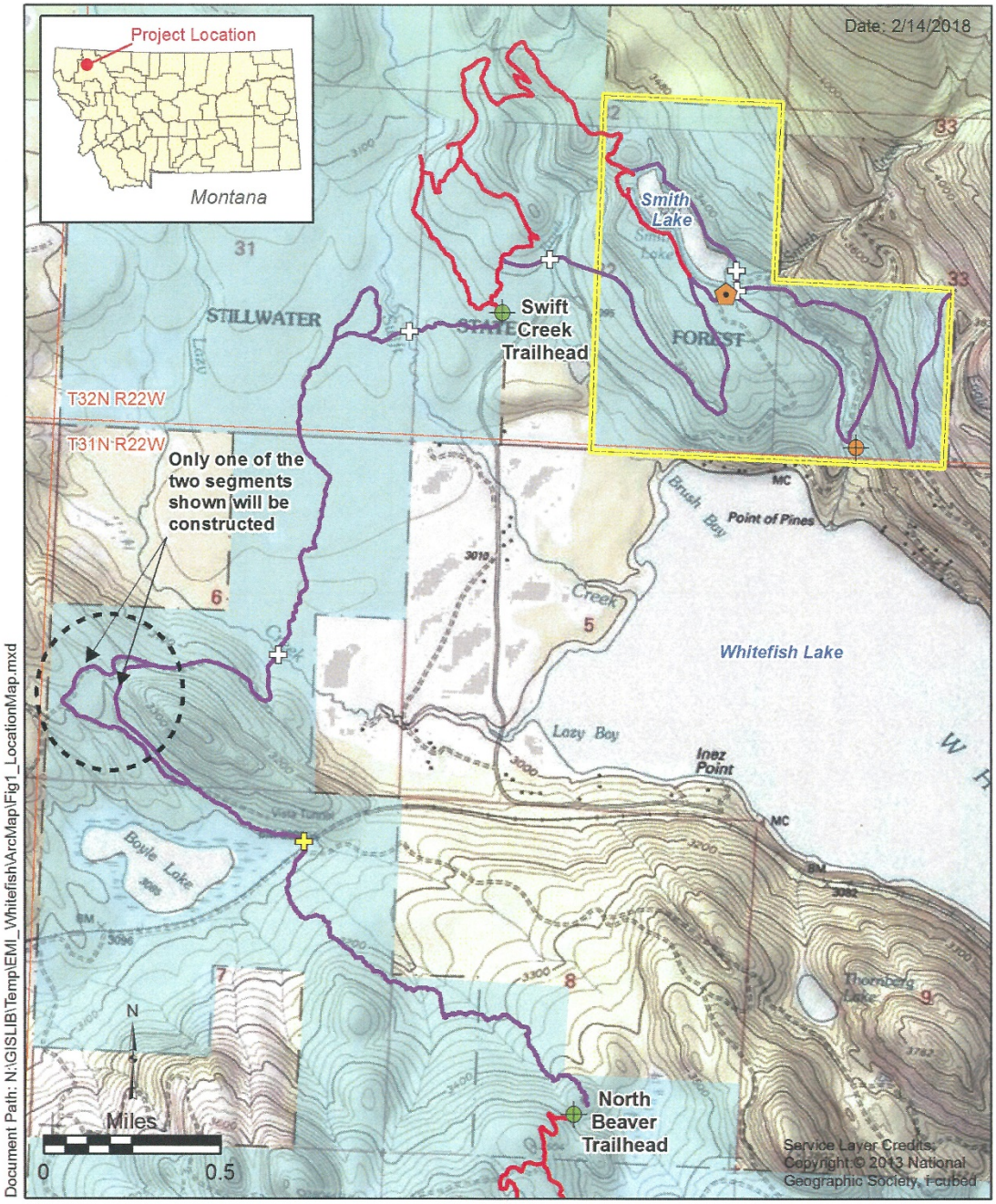
The EA consists of the following chapters:

- Chapter 1 – Introduction and Purpose and Need
- Chapter 2 – Proposed Action and Alternatives
- Chapter 3 – Existing Environment and Environmental Effects
- Chapter 4 – Literature Cited

1.1 Description of Proposed Action

The Proposed Action is for the City of Whitefish to purchase from DNRC a Close the Loop Trail Easement (approximately 11.3 acres); purchase a Public Recreation Use Easement (480 acres); and convert the existing Swift Creek Trail (a current Land Use License) (approximately 5.4 acres) to a permanent easement (Figure 2).

Figure 1. Project Location

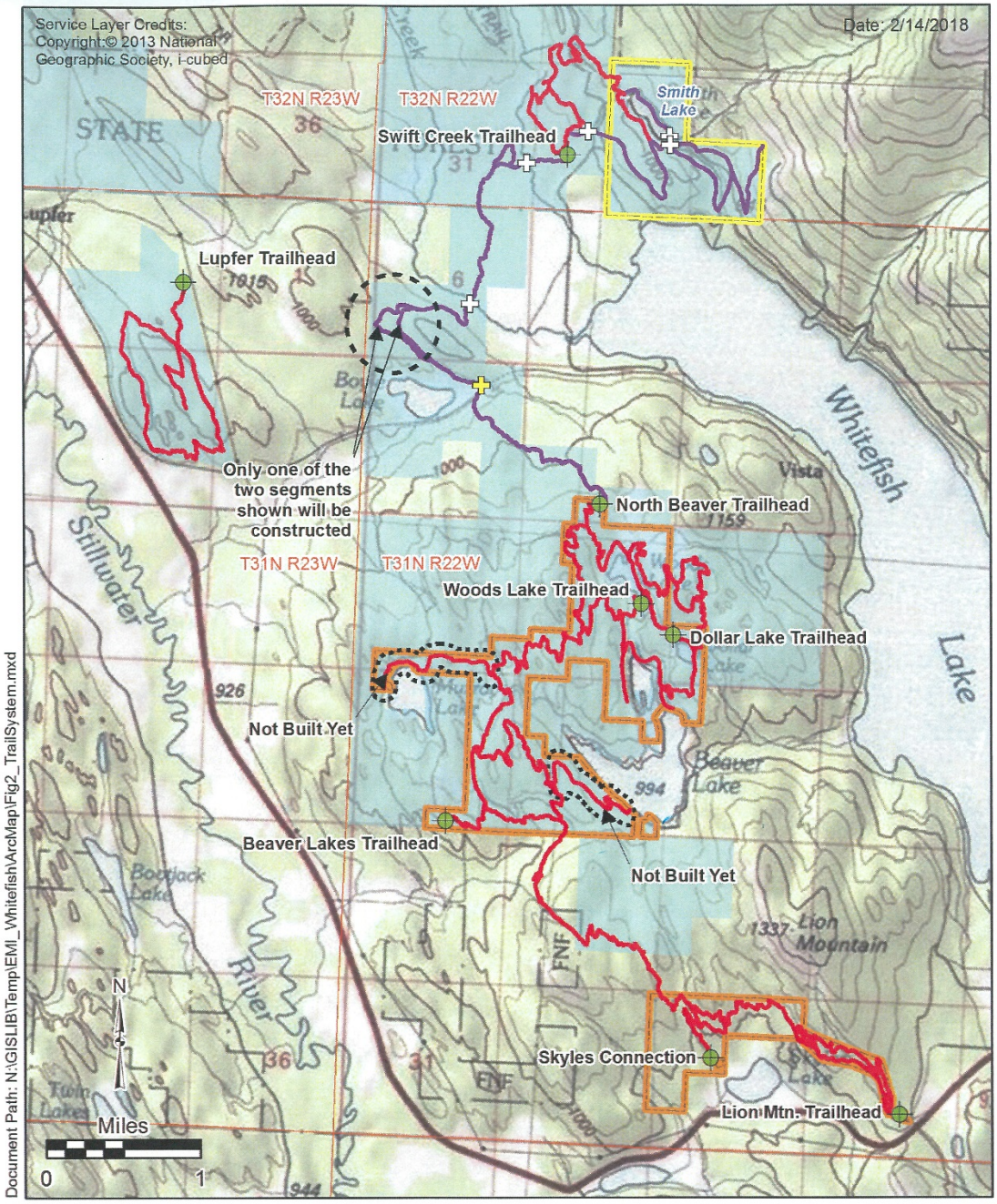


Legend

- Proposed Day-Use Area
- Proposed Trailhead
- Trailhead
- Proposed Bridge
- Proposed Railroad Crossing
- Existing Whitefish Trail
- Proposed Trails
- Proposed Recreation Use Easement
- MT DNRC Land

Figure 1
Project Location
Close the Loop Trail and Recreation Use Easements EA
Flathead County, Montana

Figure 2. Existing Recreational Trail System



Legend

- Proposed Bridge
- Proposed Railroad Crossing
- Trailhead
- Existing Whitefish Trail
- Proposed Trails
- Proposed Recreation Use Easement
- Existing Recreation Easement
- MT DNRC Land

Figure 2
Existing Recreational Trail System
Close the Loop Trail and Recreation Use Easements EA
Flathead County, Montana

The Close the Loop Trail Easement would connect the existing recreational trail systems located primarily on state trust land in the Beaver Lakes and Swift Creek areas and would include constructing:

- New trails;
- Possibly converting an existing road to non-motorized trail;
- Boardwalk over wetlands;
- Three bridges over Swift Creek, Lazy Creek, and Brush Creek; and
- A pedestrian bridge over the Burlington-Northern Santa Fe (BNSF) rail line.

The Public Recreation Use Easement plan includes constructing:

- New trails;
- Additional parking to the existing Smith Lake parking area;
- Two bridges over Smith Creek;
- A day-use site (1 to 2 acres) south of and adjacent to Smith Lake; and
- A trailhead on the East Smith Lake Road.

The conversion of the existing Swift Creek Trail Land Use License to a permanent easement would not require any construction activities.

The proposed easements would:

- Permanently secure a public right of non-motorized access for the proposed Close the Loop Trail and Swift Creek Trail Easements;
- Permanently secure a public right of non-motorized access throughout the Public Recreation Use Easement area, on current, proposed, and future trails; and
- Allow continued forest management by DNRC;
- Provide compensation to DNRC for the restriction on residential and commercial development within the Public Recreation Use Easement area; this would restrict the state's right to subdivide the land; and
- Allow for the establishment of proposed non-commercial recreation facilities (trailheads, day use site, and similar uses) in the Public Easement area.

The proposed action is described in greater detail in Section 2.2.

1.2 Background Information

The DNRC manages state trust lands to produce revenues for the trust land beneficiaries while protecting natural resources and the future income potential of the trust lands. The DNRC maintains stewardship of 5.2 million surface acres of trust land in Montana.

As part of its ongoing management of these trust lands, the DNRC was part of the planning activities for the Whitefish Trust Lands Neighborhood Plan (Whitefish Neighborhood Plan) (Whitefish Trust Lands Advisory Committee [WTLAC] 2004). Local citizens petitioned the State Board of Land Commissioners to charter a committee made up of Whitefish citizens working in collaboration with the DNRC to develop the Whitefish Neighborhood Plan to represent the needs and values of the community. The result was the Whitefish Neighborhood Plan for 13,000 acres of trust lands surrounding Whitefish that would provide increased revenue for the beneficiaries of the school trusts while maintaining the economic, environmental, and cultural vitality of Whitefish and the surrounding areas.

Among others, the Whitefish Neighborhood Plan goal associated with this proposal is to enhance *recreational use of trust lands for multiple users in a manner that provides compensation and supports the local economy and provides responsible stewardship of the natural resources*.

After the Whitefish Neighborhood Plan was adopted, the City of Whitefish and Whitefish Legacy Partners (a local non-profit group formerly known as Flathead Gateway Partners) signed a memorandum of understanding that created a partnership to implement the recommendation for a recreational loop trail. This planning effort began in January 2006, with an 18-member planning committee. The *Trail Runs Through It Master Plan* was finalized in September 2006 (Applied Communications 2006) and was adopted by the City of Whitefish. Partners to the plan included the DNRC, the Flathead National Forest, and Montana Fish, Wildlife, and Parks (MFWP). The *Trail Runs Through It Master Plan* established the first framework for a recreation system in the Whitefish area. The project was renamed the Whitefish Trail in 2010.

Approximately ***36*** miles of the Whitefish Trail, five subareas (Lion Mountain, Skyles Lake, Spencer Mountain, Beaver Lakes, and Swift Creek), and numerous trailheads have already been constructed in relation to the *Trail Runs Through It Master Plan* (Figure 2). These trails and facilities are managed under license agreements and easements.

The proposed Close the Loop Trail Easement includes the area between the Swift Creek Trailhead and the North Beaver Connection.

- Swift Creek Trailhead is accessed by traveling north on East Lakeshore Drive from downtown Whitefish about 8 miles until it turns left and becomes Delrey Road. The turnoff to the trailhead is on the right about 0.2 miles up Delrey Road.
- The North Beaver Connection is accessed by traveling west/northwest from downtown Whitefish on US-93 about 7.2 miles, turning right onto Beaver Lake Road, and driving 1.6 miles to the Beaver Lakes Trailhead. The North Beaver Connection is located 4.3 miles past the Beaver Lakes Trailhead on a state forest road or can also be accessed on the trail, 4.7 miles from the Beaver Lakes Trailhead.

- The proposed Public Recreation Use Easement is accessed by traveling north on East Lakeshore Drive to the north end of Whitefish Lake and then by driving north on one of two state forest roads. West Smith Lake Road is an open road that ends along the west side of Smith Lake, and East Smith Lake Road is a gated road that ends at the Smith Lake dam on the south end of the lake.

1.3 Purpose and Need for the Proposed Action

The DNRC responded to an application submitted by the City of Whitefish in conjunction with Whitefish Legacy Partners requesting to purchase a Close the Loop Trail Easement and Public Recreation Use Easement and to convert the existing Swift Creek Trail license to a permanent easement on state trust land. The purpose of the proposed easement is to achieve the long-term objectives of the Whitefish Neighborhood Plan while allowing continued management by the DNRC and revenue generation for the state trust.

1.4 Area Description

The easement areas are in Flathead County north and west of Whitefish Lake (Figure 1). Whitefish had approximately 7,000 residents in 2016 and is a popular destination for tourists visiting Whitefish Mountain Resort, Glacier National Park, and the surrounding areas. Tourism is primarily recreational. The area surrounding Whitefish has very high recreational value to both local residents and visitors.

1.5 Relevant Plans and Projects

Several plans and projects are associated with the proposed Close the Loop Trail and Public Recreation Use Easements and were used to analyze cumulative effects.

1.5.1 Plans

Real Estate Management Plan (REMP) (DNRC 2005)

The DNRC adopted the REMP through a Final Programmatic Environmental Impact Statement Record of Decision on July 18, 2005. The REMP provided policy, direction, and guidance in the selection and management of real estate development on Montana's trust lands. The REMP 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)

The impacts to the Forest Management program of this land (including timber production) will be considered because the area that would be encumbered by the easement is classified forested.

Smith Lake Dam Emergency Action Plan (DNRC, updated annually)

The purpose of the emergency action plan (EAP) is primarily to safeguard lives and secondarily to reduce property damage to the citizens of Flathead County living near the town of Whitefish, and along Smith Creek and the Whitefish Lake, in the event of flooding caused by a failure of Smith Lake Dam.

Whitefish School Trust Lands Neighborhood Plan (WTLAC 2004)

The proposed easement area is part of the Swift Creek and Beaver/Skyles Subareas of the Whitefish Neighborhood Plan. Specific concepts and implementation strategies for these subareas apply to the proposed easement areas, namely the goals of enhancing developed recreation with a multi-use trail system and generating revenue through conservation-buyers to protect most of the area with as minimal development as possible.

Trail Runs Through It Master Plan (2006)

The Trail Runs Through It project was renamed the Whitefish Trail in 2010. The 2006 Master Plan (Applied Communications 2006) for the Whitefish Trail project details a "recreational trail network that includes a continuous passageway 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).

1.5.2 Previous and Planned Projects

Beaver/Swift/Skyles Timber Sale Project (completed)

This timber sale included timber harvest on the proposed easement area. This timber harvest was conducted in 2010 through 2012. Final site cleanup (site preparation, piling, and slash burning) has been completed. The project was analyzed by the DNRC in an EA dated April 2009 (DNRC 2009).

Lazy Swift II Timber Sale Project (completed)

This timber sale included timber harvest on the proposed easement area. This timber harvest was conducted in 2013 through 2015. Final site cleanup (site preparation, piling, and slash burning) has been completed. The project was analyzed by the DNRC in an EA Checklist dated January 2013 (DNRC 2013).

The King Hemlock Timber Sale (in progress)

This timber sale included timber harvest to the north of the proposed easement areas. This timber harvest began in 2015 and ~~is still ongoing~~ ***has been completed as of final EA publication, however*** final site cleanup (site preparation, piling, and slash burning)

has not been completed. The project was analyzed by the DNRC in an EA Checklist dated October 2014 (DNRC 2014).

Whitefish Trail – Beaver-Skyles Public Recreation Easement (completed)

The City of Whitefish, acting in conjunction with WLP, purchased a permanent public recreation easement from the DNRC on approximately 1,520 acres of state trust land (DNRC 2015). DNRC actions included authorization of the easement and construction of three trailheads and 6 miles of new trail on the existing trail system. The easement:

- Permanently secures a public right of non-motorized access throughout the easement area, and on current and future trails;
- Allows continued forest management by DNRC;
- Provide compensation to DNRC for the restriction on residential and commercial development within the Public Recreation Use Easement Area (this would restrict the state's right to subdivide the land); and
- Allows for the future establishment of non-commercial recreation facilities (trailheads, day use sites, and similar uses).

Whitefish Trail – Phase III, Swift Creek (completed – Swift Creek Trail)

The Swift Creek system license was approved and is filed under a Land Use License No. 3053193 and No. 3053194. The trail and amenities are located in portions of Sections 29, 31, and 32 of Township 32 North, Range 22 West (Figure 2). The project consisted of approximately 3 miles of new trail including trail construction on 1 mile of existing road. A main trailhead is located at an existing gravel pit. The main trailhead would be used for the northern end of the Close the Loop Trail as described in this EA. Amenities include both directional and interpretive signing as well as a trailhead that accommodates parking for vehicles and horse trailers.

Lazy Creek Land Purchase, Phase I, II (in process)

The DNRC under the Land Banking process is in the process of a two-phase acquisition of 10,218 acres known as the Stillwater "Lazy Creek" block, located northwest of Whitefish on the east side of Montana Highway 93 in Flathead County (Appendix A). On September 18, 2017, the State Board of Land Commissioners granted final approval for the acquisition of Phases I and II of the Lazy Creek property. The Phase I closing date is scheduled early 2018, and the Phase II closing date is scheduled for December 31, 2018. ***This acquisition has been finalized as of the publication of this document, and these acres are currently encumbered by a conservation easement.***

Disc Golf Course (scheduled to build in 2018)

Land use license No. 3053544 has been granted by DNRC to Whitefish Disc Federation for a 27-hole disc golf course located in the proposed Public Recreation Use Easement Area. The license authorized improvements such as rubber mat-style tee boxes,

signboard, signage, disc targets, and single-track walking paths between holes. Additional parking could also be added under this license agreement.

Taylor Hellroaring Project EA (ongoing)

The proposal (on Flathead National Forest) includes development of new trails and one new trailhead (Appendix A) and also includes a variety of vegetation treatments.

Treating vegetation and fuels in the area is expected to increase resilience to insects and disease and reduce the risk and severity of large fires, maintain and improve wildlife habitat, and increase rust resistant western white pine and whitebark pine. The new trails are proposed to provide a range of trail experiences for hikers, mountain bikers, and horse riders.

Beaver-to-Boyle Timber Sale Project EA (scoped)

The proposed project is near Beaver Lake and extends north to Boyle Lake. Objectives of proposed timber sale include: contribute 2-5 million board feet (MMbf) to the annual sustainable yield targets for DNRC's timber harvest volumes; design and implement the project to maintain existing recreational uses and include provisions for any proposed future uses that have been identified in the Beaver Lakes Area Public Recreation Use Easement; and generate revenue for school trust beneficiaries.

The Beaver-to-Boyle Timber Sale Project was scoped after this draft EA was published therefore cumulative effects will not be analyzed.

1.6 Public Involvement

A scoping letter was mailed to 144 interested parties on June 23, 2017, and advertisements describing the proposal ran in the *Whitefish Pilot* and the *Daily Interlake* newspapers. The DNRC hosted two open houses on July 13, 2017 and July 27, 2017 at Whitefish City Hall. The original public comment period was open from June 23, 2017, through July 23, 2017, but was extended until August 1, 2017. A press release announcing this extension was sent to the newspapers on July 17, 2017. In total, nineteen comments were received.

1.6.1 Issues Raised during Scoping

DNRC resource specialists and the public raised issues about the project's potential effects on the environment and the state trust through the scoping process. DNRC considered these issues in developing project alternatives (Chapter 2) and are summarized in Table 1**.**

Table 1. Issues Raised During Scoping

Comments	***Issue Statements – Direct, Indirect, and Cumulative***	***Where Addressed***
	Hydrology and Soils	
• Questions the appropriateness of building the trail across Swift Creek, Lazy Creek, and the associated wetlands. • Concern of the effect of development of bridges, trail and boardwalk on wetlands/water.	Compacted trail corridors within wetlands may impact surface and ground water movement, resulting in adverse impacts to wetlands and wetland function in the area. Additional extent of impacts may result from construction corridors associated with the trail. • Data ***is*** available from the MT Natural Heritage Program on identified wetlands; however, field reconnaissance is necessary to identify additional wetlands that may be present but not mapped. Construction corridors include those necessary to move bridge parts, riprap, and heavy equipment.	Section 3.3.2.2, Wetlands
• Wetland ecosystem and watershed stability. • The analysis must address both short-term and long-term effects on water resources and wetlands that could be impacted by the trail system; the potential impacts to beneficial uses and potential instability of the banks along Swift Creek.	Concentrating recreation use at stream crossing sites may increase the potential for bank instability caused by user-defined trails on steep slopes, especially along Swift Creek. • Anecdotally, hikers tend to explore areas around stream crossings. With the unstable slopes along Swift Creek, this type of activity could substantially increase sediment delivery to the stream. Additionally, extreme mountain bikers could also similarly partake in activities that would adversely affect water quality at these sites.	Section 3.3.2.2, Wetlands
• Potential for adverse effects to soils such as unstable soils, erosion and compaction. • Concern of the effect ~~that~~ ***from*** the development of bridges, trail and boardwalk to the land.	Channel stability may be adversely affected at stream crossing sites through the hardening of banks, which would limit channel migration. • Riprap and hardening of banks to protect manmade structures alter the stream's energy and the natural migration of the channel. Because of the "clay banks" along Swift Creek, the altering of stream energy could result in destabilizing banks upstream or downstream of proposed crossing sites.	Section 3.3.2.2, Stream Channel Characteristics at Proposed Stream Crossings

Comments	***Issue Statements – Direct, Indirect, and Cumulative***	***Where Addressed***
	Fisheries	
• Effects on fisheries habitat that may be affected by the project.	Stream and wetland crossing structures installation may result in increased sediment delivery to surface water. • Bank disturbance during installation of proposed stream crossings has the potential to increase sediment delivery to streams. Swift Creek has several fish species—including bull trout and westslope cutthroat trout.	Section 3.4.2.2, Fish, and Threatened, Endangered, and Sensitive Species.
	Soils	
• Potential for adverse effects to soil compaction and erosion.	Trail corridor and construction corridors may impact forest soils and adjacent surface waters by way of compaction and surface erosion.	Section 3.1.2.2, Soils
	Wildlife	
• Concerns over bear habitat. • Concern of the effects that the development of bridges, trail and boardwalk could have on wildlife. • Concern about potential impacts to wildlife and the wildlife corridor through the Smith Lake area. • Concern over impacts to wildlife values. • Wildlife security habitat for winter, summer and transitional periods. • Impacts on critical habitat for recently de-listed threatened and endangered species.	Human Access • The proposed trail construction, maintenance, and use of the trail by recreationists and their pets could increase disturbance to wildlife in the vicinity of the trail, which could displace wildlife and adversely affect habitat. • The proposed trail and resulting recreational use along the undeveloped east shore of Smith Lake could displace nesting waterfowl and discourage future nesting attempts by common loons or waterfowl.	Section 3.4.2.2, General Wildlife
	Grizzly bears • The proposed trail construction, maintenance, and use could reduce visual screening and increase human access, which could adversely affect bears by displacing them from important habitats. • Use of the trail, particularly by mountain bikers, could increase the risk of bear/human conflicts and human-caused bear mortality.	Section 3.4.2.2, Threatened, Endangered, and Sensitive Species
	Canada lynx • The proposed trail construction, maintenance, and use of the trail by recreationists and their pets could increase disturbance to Canada lynx and displace them from suitable habitat.	Section 3.4.2.2, Threatened, Endangered, and Sensitive Species

Comments	***Issue Statements – Direct, Indirect, and Cumulative***	***Where Addressed***
	Wildlife (Continued)	
• The proposed project area provides important habitat for black bears, grizzly bears, moose, white-tailed deer, mule deer, elk, mountain lions, wolves, bobcats, lynx, wolverine, various forest carnivore species, and small mammals, as well as numerous avian species. The potential effects to wildlife could substantially or cumulatively reduce a wildlife population through loss or modification of habitat, avoidance behavior, attractants, direct mortality. • The effects of this proposal on nongame wildlife should also be considered, especially as it pertains to Smith Lake. The north end of this lake contains a small island and shoreline vegetation conducive to nesting by loons, trumpeter swans, and other types of wildlife.	Gray wolves • The proposed trail construction, maintenance, and use could increase human access and reduce the quality of big game winter range habitat, which could displace gray wolves from denning and rendezvous sites, increase the risk of wolf-pet conflicts, and reduce prey availability. Big game • The proposed trail construction, maintenance, and use could disturb or displace big game species, reducing the quality of winter range habitat. • The proposed trail and associated bridges could increase hunter access and decrease secure habitat, resulting in increased mortality risk to big game species.	Section 3.4.2.2, Threatened, Endangered, and Sensitive Species Section 3.4.2.2, General Wildlife

Comments	***Issue Statements – Direct, Indirect, and Cumulative***	***Where Addressed***
	Wildlife-Safety	
• Concern over potential increase in wildlife encounters that could increase the risk of human death, injury, or property damage.	Human-wildlife Conflicts • The proposed trail construction, maintenance, and use could increase litter and garbage, which could attract wildlife species and habituate wildlife, creating potential for increased conflicts.	Section 3.7.2.2.2, Safety (Wildlife) and Section 3.4.2.2, Threatened, Endangered, and Sensitive Species
	Vegetation	
• Concern of the effect that the development of bridges, trail and boardwalk to wetland vegetation and plant communities. • Thinning timber should occur parallel to the trail for site distance and help reduce any conflicts between mountain bikes and other users. • Concern over the potential limited access and availability to harvest merchantable timber.	The proposed trail corridor could have adverse effects to riparian vegetation and sensitive plant communities. • Hikers tend to not stay on developed trail tread at all times, which could increase the negative impacts in and around the trail corridor. The proposed trail corridor could create access issues to available harvestable timber. Furthermore, the trail corridor would permanently remove acres from timber production.	Sections 3.3.2.2, Wetlands, and 3.2.2.2, Sensitive Plants Section 3.2.2.2, Vegetation
	Weeds	
• Increased risk of weed infestation.	The construction of the trail and related disturbance to soil has the potential to introduce or increase noxious weed populations.	Section 3.2.2.2, Noxious Weeds

Comments	Issue Statements – Direct, Indirect, and Cumulative	Where Addressed
	Safety-Fire	
• Concern about possible fire starts from campfires and cigarettes. • Area currently attracts parties, etc. that have resulted in human caused fires. Project could increase this use/risk. • Increase risk of wildfire.	The trail would increase the number of recreationalists in the proposal area, which could consequently increase the potential for human-caused fires.	Section 3.7.2.2, Safety
	Safety-Human Health	
• Concern about liability to the city/state if users get hurt. • Supports an over-crossing bridge over the rail line and a grade separated crossing for safety. • Concern as a neighboring landowner over security and liability.	If users of the trail sustained serious injuries or death, there is the potential for an increased liability risk to the state and city. The proposed bridge over the BNSF rail line could increase safety for users who illegally cross the tracks near Boyle Lake. Users of the trail system could leave the trail corridor and trespass onto private lands which could result in a loss of security and increased liability to neighboring landowners.	Section 3.7.2.2, Safety Section 3.7.2.2, Safety Section 3.7.2.2, Safety
• Concern over trespass onto private property	Users of the trail system could leave the trail corridor to access other state and private lands, which could result in trespass onto adjacent private property.	Section 3.7.2.2, Safety
	Safety-Traffic Related	
• Concern over increased traffic on East Lake Shore Drive • Concern over increased motorized and bike use on East Lake Shore Drive. Concern that an education pavilion will necessitate large	The development of the trail system and associated improvements such as an educational pavilion has the potential to increase traffic on both Delrey Road and East Lakeshore Drive. The proposed trail could increase motorized and non-motorized traffic on Delrey Road and East Lakeshore Drive, which may lead to an increase in traffic accidents.	Section 3.7.2.2, Safety Section 3.7.2.2, Safety

Comments	***Issue Statements – Direct, Indirect, and Cumulative***	***Where Addressed***
buses/vans to transport participants. • East Lakeshore Road and Delrey Road are both problematic access routes for this proposal. The trail would increase traffic and special events at these access points.		
	Economics	
• Concern over the cost for the Beaver/Swift Creek connection. The proposal does not justify the costs of purchasing recreation easements, higher than normal construction costs because it involves building three bridges, boardwalks, raised trail treads, and the costs of the yearly maintenance associated with these facilities. • The cost to put the trail through this area is high because of the infrastructure (bridges, boardwalks, etc.). Concerned that if the proponents fund raising effort falls short in the future, what happens to their ability to maintain the significant development.	The infrastructure such as bridges and boardwalks that are necessitated by this proposal would have a large upfront cost and long-term maintenance costs for the City of Whitefish. • There is the risk that the city may not have adequate future funding to accommodate the ongoing maintenance of these improvements into perpetuity, and thus the state may become liable for the upkeep of the improvements. The proposal is a request for a 480-acre public recreation use easement granted to the City of Whitefish, which would restrict future development rights; therefore, there is the potential for long-term loss in revenue to the state from restricting development rights on these lands. The Whitefish Trail currently has ***36*** miles of trail. There is the risk that the city may not have adequate funding for additional trails with its current funding and staffing resources.	(See Note 1) Section 3.8.2.2, Economics (See Note 2)

Comments	Issue Statements – Direct, Indirect, and Cumulative	Where Addressed
• The state should require financial securitization for both short- and long-term potential costs. • An analysis needs to include the proposals estimated return to the trust.		
Alternative Development		
• Other alternatives should be considered such as conservation easement be purchased between Lazy and Swift Creek to generate funds for the state and protect wildlife and the watershed; building the trail adjacent to Delrey Road instead. • Other alternative routes for this trail should be considered that will provide public access and continue to protect the habitat between Swift and Lazy Cr.	No Issue Statement. The analysis will cover, "Other alternative considered but dropped from further analysis".	Section 2.3, Proposed Alternatives
Recreation		
• Supportive of the proposal/trail if it would be managed in the same manner as current trail system. No motorized use. • Consider horseback use on the trail system. • Supports the trail system for all uses.	The proposed trail corridor, day pavilion, and other infrastructure necessitated by the proposal may not lend itself to all nonmotorized recreational use. The proposed trail system may have adverse effects to traditional recreational pursuits in the project area such as hunting. A segment of proposed trail that would access Swift Creek would use the existing Swift Creek Trailhead. Swift Creek Trailhead is a shared trailhead with the Flathead Snowmobile Association in winter months.	Section 3.6.2.2, Recreation Section 3.6.2.2, Recreation Section 3.6.2.2, Recreation

Comments	***Issue Statements – Direct, Indirect, and Cumulative***	***Where Addressed***
• Supports the trail system for all multi-use. • Supports the proposal. The expansion should alleviate pressure off Lion Mtn. • Supports the proposal of trail and educational purposes. • Supports the proposal for preserving the Smith Lake area for future generations for recreation and the educational opportunities. • Supports the proposal. • Does not think that closing the loop between Swift and Beaver is necessary. They function independently. • Concern the trail system may have adverse effects to hunting. • The trail system may have negative effects to existing developed recreation in the project area.	• The potential for increased parking by users of the trail at the existing trailhead may have adverse effects to the amount of available parking for snowmobilers during winter months. A segment of proposed trail would dissect an existing, licensed disc golf course. There is the potential for conflicts between user groups.	Section 3.6.2.2, Recreation

Notes:

1) The infrastructure associated with this proposal would be the sole liability of the City of Whitefish to uphold and maintain; therefore, the state would not be liable for the upkeep of the improvement.

2) Funding for the development of trails and infrastructure and the associated maintenance come from outside resources such as grants and private donations.

1.7 Agencies with Jurisdiction and Coordination Requirements

The DNRC has full jurisdiction over the proposed action.

1.8 Applicable Permits and Licenses

The State of Montana would need to grant ~~a deed for~~ two easements to the City of Whitefish. Stream related permitting would include at a minimum: Montana Natural Streambed and Land Preservation Act 310 permits, Stream Protection Act 124 permits, County Floodplain Development permit, Federal Clean Water Act 404 permits, Short-Term Water Quality Standard for Turbidity 318 authorization, and Stormwater Discharge General permit (if greater than 1 acre disturbed at a crossing). The BNSF railroad crossing would be coordinated, designed, and permitted through BNSF. If vaulted toilets are constructed at trailheads, a septic system permit would be required through the Flathead City-County Health Department.

1.9 Agency Decisions to be Made

The decisions to be made on this proposal include the following:

- Selection of an alternative; and
- Determination that no significant effects would occur (with or without mitigations) and the rationale why they would not occur.

The selected alternative must meet or exceed the goals and policies of the REMP, SFLMP, and WNP.

For this project, Dave Ring, Unit Manager for the Stillwater Unit Office, is the responsible official for the State of Montana. If the record of decision is favorable to the proposal, the City of Whitefish would need to apply for easements. Once ~~approved~~ ***reviewed*** by the DNRC, the easements would be submitted to the ***State Board of Land Commissioners (Land Board) for approval***. The Land Board would make the final determination as to whether the State would grant the Close the Loop Trail Easement, Public Recreation Use Easement, and Swift Creek Trail license conversion ~~easement~~.

2.0 Proposed Action and Alternatives

Chapter 2 describes the alternatives that are analyzed in this EA as well as a discussion of alternatives that were considered but dismissed from further analysis.

2.1 No Action

Under No Action, the State of Montana would not grant the City of Whitefish a Close the Loop Trail Easement, a Public Recreation Use Easement, and Swift Creek Trail permanent easement on the state trust land shown on Figure 2. It would remain as land managed by the DNRC for timber, development and other revenue generating activities. The DNRC would continue to allow dispersed and developed recreation from existing trails and trailheads and would consider new developed recreation proposals in the future.

2.2 Proposed Action

Under the proposed action, the City of Whitefish would purchase from the State of Montana an easement for a Close the Loop Trail, an easement for a new Public Recreation Use Area, and an easement for the land currently licensed as the Swift Creek Trail (Figure 1 and Figure 2). The DNRC would retain the fee title to, and overall management of the land within the easement. DNRC would also continue to manage the land for commercial timber and resource conservation and for current and future land use licenses.

Within the 16.7 acre Close the Loop Trail Corridor (16-foot-wide), 2.8 miles (5.4 acres) of an existing licensed trail (Swift Creek Trail) would be purchased as a part of this easement, the City of Whitefish would construct approximately 4.7 miles of new trail (8.4 acres) and convert 1.2 miles (2.9 acres) of existing road to non-motorized trail, construct boardwalk over wetlands, and construct three bridges across Swift Creek, Lazy Creek, and Brush Creek. The new trail portion of this proposal would connect the existing loop trail systems in the Swift Creek and Beaver Lakes area. (Figure 2)[1]. A pedestrian bridge would be constructed over the BNSF railroad and the City of Whitefish would collaborate with and get approval from BNSF for bridge location and design.

Within the 480-acre Public Use Recreation Easement area, the City of Whitefish would construct approximately 3.8 miles of new trail (7.4 acres). In addition to the new trails being built, 0.6 miles ***(1.3 acres)*** of existing licensed trail (Swift Creek Trail) would be purchased as a part of this easement. Additional improvements would include two pedestrian bridges across ***the inlet and outlet of*** Smith Creek, a day-use area located

[1] The number, exact location, and design of trail, trailheads, bridges, and other infrastructure would be finalized after consultation with DNRC managers and resource specialists.

adjacent to Smith Lake, fencing to protect the spillway and dam, and a new Smith Lake South Trailhead.

The day-use area would include the following infrastructure:

- Two vehicle disabled accessible parking;
- Picnic tables;
- Vault toilet;
- Two or three-panel kiosk;
- Signs with consistently stated regulations;
- Interpretive signs; and
- A pavilion no larger than 34-foot by 34-foot (similar to the Lion Mountain pavilion).

The Smith Lake South Trailhead would include the following infrastructure:

- Parking for 10 to 12 vehicles;
- A kiosk;
- A mutt mitt dispenser; and
- Bear-proof trash cans.

The infrastructure described above is estimated to have a 3-acre footprint.

The DNRC would continue to generate revenue from timber management (outside of the proposed Close the Loop and Public Recreation Use Trail Corridors and the proposed infrastructure footprint) and current and future land use licenses. The funding for the purchase of easements would come from private donations and other sources through WLP. The DNRC would retain the fee title to and overall management of the land within the easement and would continue to manage the land for commercial timber and resource conservation, subject to provisions detailed in the terms of the easement and for current and future land use licenses. The land would be subject to development restrictions. The City of Whitefish would construct and maintain recreation facilities including trailheads and trails.

Similar to the other trails constructed as part of the Whitefish Trail system, the proposed trails would be constructed and maintained according to the International Mountain Biking Association's (IMBA) standards and principles found in *Trail Solutions; IMBA's Guide to Building Sweet Singletrack and Managing Mountain Biking* (IMBA 2004).

The trails would be managed under the current management standards described under the *Whitefish Trail Management and Operations Plan (DNRC 2018)* and other associated management plans with responsibilities shared among DNRC, the City of Whitefish, and its assignees, including WLP.

2.3 Alternative Considered but Dismissed

During the initial public scoping period for this project, comments were received requesting alternative routes for this trail to be considered. Commenters indicated that these alternative routes could (1) provide public access, (2) continue to protect the habitat between Swift Creek and Lazy Creek, (3) generate funding for the state, and (4) protect wildlife and the watershed.

In 2006, the DNRC and the City of Whitefish adopted the *Trail Runs Through It Master Plan*, which includes a plan and design standards for a trail system that would result in a trail network that would connect the various state trust lands and create a main trail passageway encircling the greater Whitefish area. The Master Plan was broken up into geographical segments: Lion Mountain, Skyles Lake, Spencer Mountain, Beaver Lakes, Swift Creek-South Half, and Swift Creek-North Half (Appendix C).

This analysis covers the Swift Creek South Half and North Half segments as described in the Master Plan. The Swift Creek South Half segment would connect to the existing Swift Creek and Beaver Lakes trail systems of the Whitefish Trail.

Three options were considered in the Master Plan for crossings of the BNSF railroad for the Swift Creek South Half segment. Option A included a multiple use non-motorized tunnel at Delrey Road near the existing at-grade crossing that is currently used for BNSF railroad operations. Option B required a pedestrian bridge over the BNSF rail line just east of Boyle Lake. Option C included crossing the railroad tracks on state trust land at the northwest corner of the Beaver Lakes subarea. Since Option C included the trail system connecting to the existing Lupfer trail (connecting trail dropped from proposal), it was not analyzed as an alternative.

The City of Whitefish proposal includes Option B only, the crossing location over BNSF railroad just east of Boyle Lake. The DNRC and the City of Whitefish met on several occasions to discuss details of the proposal before it was finalized. At those meetings, Option A was discussed as an alternative to be included under this analysis. However, the City of Whitefish requested Option A not be pursued as an alternative at this time because of challenges with locating a path in the Delrey Road right-of-way.

3.0 Existing Environment and Environmental Effects

Provided in this section is a description of current condition of potentially affected resources, the impacts of the No Action alternative, the impacts of the proposed action alternative, mitigation measures that could be used to avoid or minimize adverse impacts, and cumulative effects.

Direct and indirect effects are those that would be caused by the action under consideration and further impacts that may be stimulated or induced by or otherwise result from a direct impact of the action. Effects are categorized and defined as:

Negligible - little to no effect

Low - reversible and localized impact on the environment

Moderate - higher than low impact but reversible or irreversible and localized impact on the environment

Major - significant and irreversible impact on the environment

The Administrative Rules of Montana Title 17.4.603 define cumulative impacts as:

> *… the collective impacts on the human environment* ***of the proposed action*** *when considered in conjunction with other past and present actions related to the proposed action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through preimpact statement studies, separate impact statement evaluation, or permit processing procedures* [emphasis added].

Methods for mitigation are included where impacts suggest they may be needed. Table 2 compares the effects of the alternatives on resource issues identified during scoping.

Table 2. Summary of Effects

No Action	Proposed Action	
Direct and Indirect Effects	**Direct and Indirect Effects (1)**	**Cumulative Effects**
Soils		
• There would be no additional risk to soils as a result of No Action.	• Soils would have increased but low risk to erosion where disturbed soils are loose and not finally graded and where filled slopes have not been revegetated. • There would be low short-term impacts to soil fertility and organic matter content to the upper soil material in the areas disturbed by trail construction. • Soils beneath the proposed trail would have a moderate risk ~~to~~ ***of*** compaction, especially during construction of the bridges over Swift Creek, Lazy Creek, and the railroad. • Smaller pedestrian bridges over Brush Creek, and the inlet and outlet to Smith Lake would have short-term low impacts to soils within the trail easement.	• A cumulative increase in soil compaction and erosion ***would result from this alternative due to*** possible ~~*caused by*~~ increas***ed*** trail and recreation facility construction. However, previous and future trail construction have been conducted using the International Mountain Biking Association's (IMBA) guidelines; therefore, the erosion potential would be a negligible to minor cumulative effect. • Timber harvest would continue within the general easement area, however, environmental impacts from proposed timber harvesting would be analyzed under a separate EA.
Vegetation		
• There would be no additional risk to vegetation as a result of No Action.	• The effect to vegetation would occur on a narrow, confined area and the overall vegetation effect would be classified low. • An unknown amount of sensitive plants would be affected under the proposed action. • The proposed action could have a positive moderate impact on the weed infestation near the railroad crossing. The exposed areas resulting from construction would have a greater risk of weed infestation. There is a moderate risk that more noxious weeds would be spread by increased ~~activity.~~ ***construction activities in the short term; however, with mitigations, the increase in noxious weeds would be low***.	• Potential increased weed infestation with additional public access and use however, increased public information on using the trail responsibly would likely reduce the spread of noxious weeds. • Increased management would lead to identification and reclamation of problem weed areas on trails, and increased public knowledge of how to reduce the spread of noxious weeds • Increase in cost and time of managing current and future timber sales in the area due to increased complications of arranging forest management activities around a recreational corridor.

No Action	Proposed Action	
Direct and Indirect Effects	**Direct and Indirect Effects (1)**	**Cumulative Effects**
	Water Resources	
• There would be no additional risk to water resources as a result of No Action.	• ~~*Construction of the trail near and the bridges across streams would create a moderate risk of increasing the production and delivery of fine sediment to streams and compacting and eroding stream banks.*~~ Construction and recreational use of trails and bridges would create a moderate risk of increasing the production and delivery of fine sediment to streams, compact and erode stream banks, and inhibit the natural migration of stream channels. • Impacts to surface water from contribution to the active stream channel caused by installation of the trail would be low. • During construction of trails, storm events would likely have a moderate impact on the stream banks during construction by potentially causing bank erosion and delivery of sediment to the stream channel. • Bridge abutments or piers installed along the edge of the active stream channels would have a major risk of changing the local channel hydraulic characteristics • Bridge abutments or piers installed out of the active channel but within the 100-year floodplain would have a low to moderate risk of changing the local channel hydraulic characteristics. • Bridge abutments or piers installed out of the 100-year floodplain would have a negligible to low risk of changing the local channel hydraulic characteristics. • With sufficient freeboard, there would be a low risk of bridge damage due to debris buildup on the bridge support structure. • Ice buildup around the bridge piers installed in the 100-year floodplain outside of the bank full flow channel and damage to the active river channel and floodplain would have a low to moderate risk of occurrence. • Constructing bridges across the smaller streams (Smith and Brush Creeks) would have a negligible risk of changing the existing local channel hydraulic characteristics. • ***Along the trail route and at the Swift and Lazy Creeks bridge sites, impacts during bridge construction would be moderate but with the implementation of mitigation measures would be low to negligible once construction was completed.*** ~~*Depending on the location, equipment crossing Swift Creek during Swift Creek and Lazy Creek bridge construction would have a low to moderate impact.*~~ • Construction equipment crossing existing wetlands ***would*** negatively affect the wetlands function, however the trail corridor could be relocated to avoid some wetlands. • The wetland areas associated with Swift and Lazy Creeks are susceptible to compaction and erosion and sedimentation due to concentrated recreational use near these water crossings.	• Potential bank instability and increased sediment delivery to streams, ~~*continued timber harvest,*~~ increased exposed soils and soil erosion, particularly during trail construction. • Increased management would lead to public education on how to use the trail and pedestrian crossings responsibly in order to minimize unauthorized trails and negative impacts to surface water. • The Close the Loop Trail project, in conjunction with previous trail building in the Beaver/Skyles area, ***would*** result in increased amounts of exposed soils and ***a risk of*** soil erosion and delivery to wetlands, particularly during trail construction.

No Action	Proposed Action	
Direct and Indirect Effects	**Direct and Indirect Effects (1)**	**Cumulative Effects**
	Wildlife Habitat	
• Under the No Action alternative, no habitat modifications or additional human disturbance would occur in undeveloped areas. Recreational use of existing trails would continue to increase over time. • There would be no effect on threatened fish and wildlife species under the No Action alternative. • There would be no effect on sensitive fish and wildlife species under the No Action alternative.	• Adverse impacts to wildlife in general would be moderate, based on likelihood that not all trail users would control dogs, stay on the trail, and properly dispose of trash. • During construction and infrequent channel crossings, short term, adverse impacts to the channel habitat features and fish distributions, including bull trout, would have a low to moderate risk of occurrence. • Impacts to the stream channel from pier and abutment locations as discussed in Water Resources correlates with impacts to fish, including bull trout. • Adverse impacts to big game would be moderate ***with the implementation of the mitigation measures***, based on the increased disturbance, loss of security habitat, and increased hunter access. • With mitigations implemented for any den sites ***discovered*** near the trail, adverse impacts to Canada lynx would be low. • With mitigations to reduce human-bear encounters, adverse impacts to grizzly bears would be moderate based on habitat impacted by new trails and ***disturbance or displacement due to*** increased human presence. • With mitigations, adverse impacts to loons would be moderate based on presence of humans and dogs near loon nests. • Adverse impacts to wolves would be moderate ***with the implementation of the mitigation measures***, based on the reduction of big game winter range quality and potential interactions with humans and dogs. • Adverse impacts to harlequin ducks would be low ***with the implementation of the mitigation measures***, because of the habitat remaining undisturbed.	• ~~*Minor*~~ ***Low*** cumulative effects would be long-term and would occur as long as the trails are being used • Individual wildlife species may be affected by disturbance, displacement, or habitat loss but population-level effects are not expected • Trails are a ~~*minor*~~ ***low*** impact in terms of habitat loss since the cover type, forest structure, and connectivity of habitat are not altered to a measurable degree. • Long-term, low to moderate adverse cumulative effects to big game. • With the implementation of mitigation measures, low adverse cumulative effects to Canada lynx are expected. • Moderate, long-term adverse cumulative effects to grizzly bears. • With the implementation of mitigation measures, there would be ~~*moderate*~~ ***low*** long-term cumulative effects to common loons. • With the implementation of mitigation measures, low adverse cumulative effects to gray wolves are expected. • Cumulative adverse effects to harlequin ducks are expected to be negligible.

No Action	Proposed Action	
Direct and Indirect Effects	**Direct and Indirect Effects (1)**	**Cumulative Effects**
Cultural Resources		
• Under the No Action alternative, the proposed trails would not be constructed, and there would be no project-related effects on known historic properties.	• Construction of the proposed trail would have negligible direct effects on cultural resources. • Site 24FH367, a log cabin, is located just outside an easement area, and may be subject to indirect damage if hikers leave the trail and vandalize this historic cabin.	• No cumulative effects from construction. • No reasonably foreseeable action that would cause additional cumulative effects.
Recreation		
• No direct impacts on or conflicts with current uses, particularly non-motorized recreational use, traditional recreational pursuits such as hunting, the Swift Creek Trailhead, parking for snowmobiles, or the disc golf course are expected under the No Action alternative.	• Development of the trail system would moderately increase the overall use of the area, but the degree is unknown. • ~~This area is not a prime hunting area, so it is unlikely that there would be conflicts between hikers and hunters~~ • ***More people recreating in an area where hunting is the traditional use would be considered a conflict; however, most hunting occurs in late fall for the most popular seasons, not in the summer when recreational use is high.*** • There is a low risk of increased conflict between disc golf course users and hikers and bikers using the trail. • ***The facilities at the Swift Creek Trailhead are shared with the Flathead Snowmobile Association in the winter when trail use is the lowest; therefore, it is expected that a conflict between these user groups would be low.*** • Although motorized use of the trails would be unavailable and territory conflicts with hunters are possible, the overall impact of the proposed plan would be positive and low to moderate based on overall increased use of the proposed trails as described in the Trail Runs Through It Master Plan.	• Past and present recreational development has increased the use in the area and would likely result in conflicts between motorized and non-motorized users, between hunters and other recreationists, and between pedestrian and bicycle use. • Even though these conflicts are possible, the overall impact of the proposed plan would be positive and low to moderate based on overall increased use of the proposed trails as described in the Trail Runs Through It Master Plan.
Safety		
• The increase in use even under the No Action alternative would increase the potential for wildlife and human interactions, wildland fires started by people and vehicles, traffic (motorized and non-motorized) and accidents, and trespassing.	• Because of the limited liability established by statute, the increased human use would result in negligible increase in liability for the State or the City of Whitefish. • ***Pedestrian safety would be increased at the proposed bridge location over the BNSF rail line*** • ~~With the moderate increase in human use, there would be a negligible to low likelihood of trespassing on private ground other than the property owned by BNSF railroad, where the likelihood would be low to moderate~~. • ***The risk of trespassing is low. There are no residences close to the proposed trail location.*** • ~~There is negligible to low likelihood of increased human fire ignitions, increased traffic accidents, and pedestrian safety at the bridge crossing the~~	• Cumulative threats to human safety and traffic safety would see a moderate increase as more people use the area. Use of the area by wildlife may decrease at the same time, limiting cumulative impacts. The potential for human caused fires and trespassing is slightly increased. ***The potential for human-wildlife encounters is slightly increased***.

No Action	Proposed Action	
Direct and Indirect Effects	**Direct and Indirect Effects (1)**	**Cumulative Effects**
	~~BNSF railroad~~. • ***The negative impact for human safety around wildlife would be low; however, mountain bikers are disproportionally at risk for encounters with bears and other potentially dangerous wildlife because of the speed of travel, attention to the trail, and quietness, compared with hikers and walkers***. • ***There would be a low increase in human caused fire ignitions with increased use of the area.*** • ***It is expected that traffic would see a moderate increase in the area as people access the trailheads. Any additional vehicle traffic would likely lead to a slight increase in traffic accidents***.	
Economics		
• Revenue would continue to be generated for various trust beneficiaries from timber harvest and other revenue generating activities. The DNRC would continue to generate revenue by issuing commercial and general firewood permits. • The DNRC would retain fee-simple ownership and the land value would not be reduced.	• Estimated easement restrictions imposed on DNRC's use of the parcels would reduce the value of the land by about 34 percent of its current value. • Under the proposed action, proceeds from the sale would be invested in the Permanent Fund and would become an annual source of revenue for the trusts. • Visitors using the trust land for dispersed recreation would still be required to obtain a recreational use license, so total revenue could increase.	• Not analyzed.

Note:
(1) Before mitigation(s) unless noted otherwise.

3.1 Soils

3.1.1 Existing Environment

The analysis area for soils includes the proposed Close the Loop Trail and Recreation Easement Trail Corridors (1,320–foot-wide). The analysis area is located north and west of Whitefish Lake in an area within the greater Flathead Valley (geologically known as the Rocky Mountain Trench). Some 12,000 years ago, large glacial ice sheets advanced south from Canada through the Flathead Valley and deposited sand, gravel, cobbles, and boulders (collectively known as glacial till). As the glacial ice melted, it left behind and created dams, carved out lakes, and left a valley filled with glacial till deposits. The current geologic parent materials (glacial till) underlying the analysis area contain different types and sizes (grades) of soil and rock materials, depending on the actions of the glacial ice and the reworking of the deposits by alluvial and colluvial forces after they were deposited.

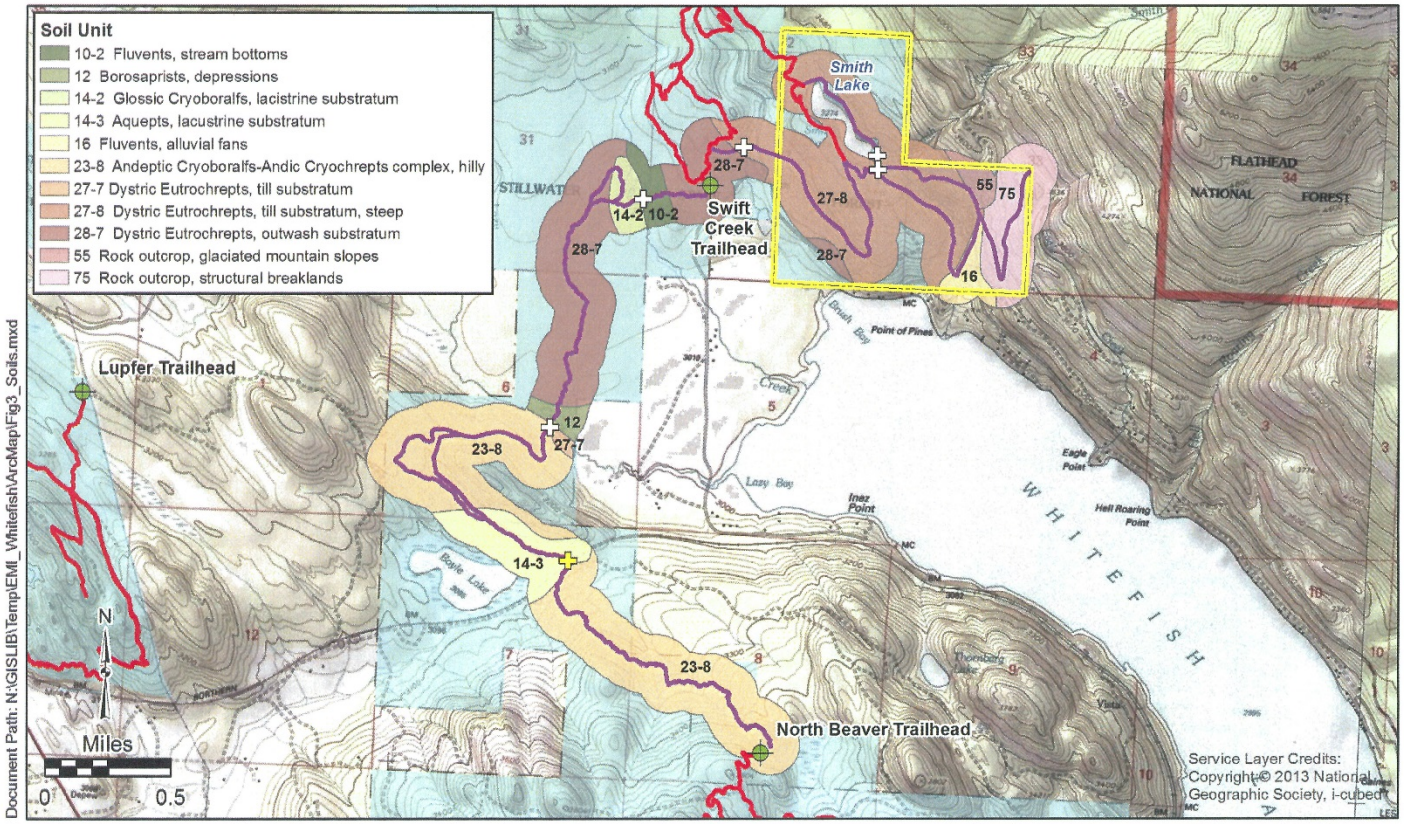
Four main kinds of soil (Soil Orders) have developed within the analysis area. Different soils form because of differing geologic parent materials or alluvial sediments and are further modified by factors including climate, vegetation, topography, and time. Table 3 provides the acreage and distance (linear feet) for each of the soils mapped along the proposed Close the Loop Trail and Recreation Easement Trail Corridors. Soils currently mapped by the Natural Resource Conservation Service (USDA-NRCS 2010) along the buffered trail corridor (1,320-foot-wide) are shown in Figure 3.

Table 3. Soil Type Acres and Distances for Proposed Trail Easement Corridors

Map Unit	***Soil Type***	***Soil Order***	***Inside Public Recreation Use Easement***		***Outside Public Recreation Use Easement***		***Acres by Soil Type***
			Acres	***Linear Feet***	***Acres***	***Linear Feet***	
10-2	Fluvents, stream bottoms	Entisol	--	--	0.18	487.9	0.18
12	Borosaprists, depressions	Histisol	--	--	0.17	451.7	0.17
14-2	Glossic Cryoboralfs, lacustrine substratum	Alfisol	--	--	0.63	1,726.6	0.63
14-3	Aquepts, lacustrine substratum	Inceptisol	--	--	1.07	2,927.1	1.07
16	Fluvents, alluvial fans	Entisol	0.54	1,447.4			0.54
23-8	Andeptic Cryoboralfs-Andic Cryochrepts complex, hilly	Alfisol	--	--	6.05	16,494.4	6.05
27-8	Dystric Eutrochrepts, till substratum, steep	Inceptisol	5.38	14,551.1	0.36	962.9	5.74
28-7	Dystric Eutrochrepts, outwash substratum	Inceptisol			2.89	7,864.3	2.89
55	Rock outcrop, glaciated mountain slopes	NA	0.15	418.0	--	--	0.15
75	Rock outcrop, structural breaklands	NA	1.37	3,712.1	--	--	1.37
Total			**7.43**	**20,128.6 (3.8 miles)**	**11.34**	**30,914.9 (5.8 miles)**	**18.78**

Note:
Approximately 3 ***acres*** would also be impacted during the construction of bridges, additional signage, vault toilets, and a pavilion. These locations are not included in this table.

Figure 3. Soils



Soil Unit Source: Soil Survey of Flathead National Forest Area, Montana, Sept. 1998

Legend

- Trailhead
- Proposed Bridge
- Proposed Railroad Crossing
- Existing Whitefish Trail
- Proposed Trails
- Proposed Recreation Use Easement
- MT DNRC Land

Figure 3
Soils
Close the Loop Trail and Recreation Use Easements EA
Flathead County, Montana

The dominant soil order in the proposed easement is Inceptisols; these soils have developed in areas with higher rainfall and typically have a pale colored surface horizon but only minimal subsurface profile development. Three individual soil mapping units are Inceptisols and include units 14-3, 27-8, and 28.7. Alfisols are also common soils along the proposed trail; these soils typically develop under moist forest canopies and have a subsurface horizon where clays have accumulated. Alfisols often develop on glacial till parent materials in this part of Montana. Two soil mapping units are Alfisols and include units 14-2 and 23-8. Entisols are young soils that often are found on recent alluvial terraces and surfaces. Two soil mapping units (10-2 and 16) are found along the proposed trail and are classified as Entisols.

These three mineral soil orders represent 98.5 percent of the trail length and area. These mineral soils have a mixture of particle sizes (sand, silt, and clay) and should not be greatly susceptible to soil compaction or accelerated erosion, except where loose soils are on steep slopes. Trail construction could compact soil from heavy or wheeled machinery, and compacted soils are more susceptible to erosion because of the reduced surface infiltration, which results in more transport of soil particles off site.

The fourth kind of soil found along the trail length is a Histisol soil; these organic-rich soils develop in areas with high water tables, typically along streams, creeks, or ponds. Only one soil mapping unit (12) is classified as a Histisol and is found along 1.5 percent of the trail. Histisol soils are highly porous under natural conditions and can typically hold more water than mineral soils. Organic soils are more susceptible to compaction than mineral soils.

The main soil properties important for trail construction and impacted by the trail construction included depth to a restrictive horizon, consolidated or unconsolidated materials, depth to the water table, soil texture, soil organic matter, soil compaction potential, and wind and water erosion potential. Some soils along the proposed trail may have been previously disturbed by timber harvest and construction of the existing roads, trails, and railroad.

3.1.2 Environmental Effects

3.1.2.1 No Action – Direct and Indirect Effects

There would be no additional impact to soils as a result of No Action. The land would continue to be managed for recreation and timber, and the general area may have increased recreational use from hikers even without defined and constructed trails. Some additional future timber harvest could occur in the area but would follow applicable DNRC best management practices (BMPs) to minimize erosion and protect the soils.

3.1.2.2 Proposed Action – Direct and Indirect Effects

The proposed Close the Loop Trail would be constructed along a total length of approximately 5.9 linear miles and on top of approximately 11.34 acres. The proposed

trail segments within the Public Recreation Use Easement would be approximately 3.8 miles in length and on top of approximately 7.4 acres. The acreage and centerline linear distance for each soil map unit crossed by the proposed trails are provided in Table 3.

Soil Map Units 55 and 75 are both units of Rock Outcrop and by nature would be very shallow to bedrock. Unconsolidated soils may be very thin or nonexistent. Constructing the trail across these soil mapping units would likely require excavation into the bedrock to maintain a nearly level trail surface. Excavating into the hillside would result in material and rock that would be placed on the downhill side of the trail. The emplaced materials would initially be loose and unconsolidated and have a moderate potential to slump and erode until reclaimed. If mitigated, this impact would be low.

The soils would have increased but low risk to erosion where the disturbed soils are loose and not finally graded and where the filled slopes have not been revegetated.

There would be low short-term impacts to soil fertility and organic matter content to the upper soil material in the areas disturbed by trail construction from salvaging, temporary stockpiling, and redistributing onto the final regraded areas. The topsoil has important organic matter, microorganisms, and other properties that benefit revegetation of the disturbed areas.

The soils beneath the proposed trail would also have a moderate risk to compaction, especially during construction when heavy equipment and other vehicles would use the road for delivering supplies and assisting with construction. Constructing bridges over Swift Creek and Lazy Creek would involve delivering supplies and materials, including concrete, and positioning a large crane or hoist on both sides of the creeks. The likely process for constructing the bridges would be to construct the trails up to both sides of the creek crossings and then use the trails for access to the bridge construction. The bridge over the railroad would have moderate impacts to soils in that area; a bridge design that minimizes cut and fill volumes would result in lower impacts to soils. Soil compaction directly under the trail tread is beneficial for sustainable trails. Smaller pedestrian bridges over Brush Creek, and the inlet and outlet to Smith Lake would have short-term low impacts to soils within the trail easement.

The design considerations from IMBA guidelines (IMBA 2004) that are applicable to the proposed Close the Loop Trail include:

1. Keep ponded water off the trail by outsloping;
2. Build trail on the contour and use frequent grade reversals;
3. Design the trail grade with less than half the grade of the sideslope (half-rule);
4. The average trail grade should be less than 10 percent;
5. The maximum trail grade should be less than 15 percent (except for short sections); and
6. Short trail sections greater than 15 percent grade should be armored with rock.

Mitigations:

- Use soil erosion and surface water management BMPs.

- Salvage topsoil before trail construction to help minimize soil compaction and loss of the topsoil.
- Avoid lower lying depressed areas where water would tend to collect and pond when locating the trail. Install small bridges over ephemeral streams as needed.
- Minimize the angle of the disturbed backslope in the trail design.
- All disturbed soils should be reseeded within seven days of construction.
- Trail use during wet periods should be limited.

3.1.2.3 Cumulative Effects of the Proposed Action

Approximately 40 miles of new trails and one new trailhead are proposed to be constructed on the adjacent Taylor Hellroaring project. The Close the Loop Trail project, in conjunction with previous trail building in the Beaver/Skyles area, ***would*** result in a cumulative increase in soil compaction and erosion caused by increasing trail and recreation facility construction. However, previous and future trail construction have been conducted using the IMBA guidelines; therefore, the erosion potential would be a negligible to low cumulative effect.

Timber harvest would continue within the general easement area, however, environmental impacts from proposed timber harvesting would be analyzed under a separate EA. All timber harvested would use applicable forestry BMPs to be protective of soils.

3.2 Vegetation

3.2.1 Existing Environment

The proposed vegetation analysis area includes the Close the Loop Trail and Public Recreation Use Trail Corridors (16-foot-wide) and the Public Recreation Use Area (480 acres). The Close the Loop Trail traverses mature forests, recently harvested forest land, three creeks, wetlands, and a railroad. In addition, the corridor is within sight of Boyle Lake. The proposed Public Recreation Use area contains mature forest and Smith Lake and its associated inlet and outlet creek. The vegetation associated with these proposed easements is discussed below.

Forest - Overstory

There are approximately 6 acres of old growth (old trees and related structural attributes) in the proposed Close the Loop Trail Easement and 153 acres within the Public Recreation Use Easement. There are 17 acres of mature forest in the proposed Close the Loop Trail Easement and 344 acres within the Public Recreation Use Easement. Old-growth forest patches were identified in these databases based upon tree density and size characteristics described by Green (Green and others [1992]), and mature forest was defined as forest stands that have at least 40 percent canopy cover and are composed of trees primarily larger than 9 inches diameter at breast height. The majority (80 percent) of the easement areas is heavily forested. Habitat types based on

DNRC mapping indicate that a western larch/Douglas-fir community comprises at least half of the easement areas. Ponderosa pine, mixed conifer, and Douglas-fir stands are also present. Non-forested areas include riparian areas, wetlands, lakes, and streams.

Shrub and Herbaceous - Understory

The shrub canopy is common under most of the forested areas and includes Rocky Mountain maple, redosier dogwood, Mountain alder, Water birch, Twinflower, Common snowberry, and Prickly rose. The herbaceous vegetation includes many forbs and ferns but only a few grass species, except in open parks and meadows. Herbaceous species include American skunk cabbage, Goose grass, Sweetscented bedstraw, Starry Solomon-plume, and Common dandelion. Small depressional areas, with high water tables and seasonal standing water, are located within level sites and near the meandering reaches of Swift and Lazy Creeks. These depressional areas may have wetland characteristics and often have American skunk cabbage growing at the waters' edge and within the moist microsites (Hansen et. al 1995).

Additional information related to wetland and emergent wetland vegetation is provided in Section 3.3; information related to habitat vegetation is provided in Section 3.4.

Sensitive plants

DNRC utilizes the Montana Natural Heritage Program to determine whether sensitive plants are present within the project area. A site search has indicated that a sensitive plant survey has not been conducted within the project area therefore it is unknown at this time whether sensitive plants are present.

Noxious Weeds

Noxious weeds in the area include spotted knapweed, oxeye daisy, hounds tongue, common mullein and orange and yellow hawkweed. Most weeds occur in small spotty populations in the project area; however, more extensive infestations of noxious weeds exist in the gravel pit at the Swift Creek Trailhead, along the BNSF right-of-way, and in areas of recent timber harvesting.

3.2.2 Environmental Effects

3.2.2.1 No Action – Direct and Indirect Effects

With the No Action no additional forestland would be taken out of timber production. Stands would be managed as part of the forest management program. Current uses of the area would continue with the potential of increased recreation which could lead to vegetation trampling, including sensitive plants. The potential for the spread of noxious weeds would remain and may increase over time with increased recreational use. DNRC would continue to treat weed infestations when necessary.

3.2.2.2 Proposed Action – Direct and Indirect Effects

Forest and Shrub and Herbaceous

Under this action, the City of Whitefish would be granted timber rights within the proposed Close the Loop and Public Recreation Use Trails Easement Areas. If this action were approved, the trails would be constructed along a total length of approximately 9.7 linear miles (approximately 18.74 acres). The maximum amount of timber harvested under this action for trail construction would be 18.74 acres and up to 3 acres harvested for infrastructure (bridges, signage, toilets, and pavilion). Activities such as pruning trees, removing downfall and hazardous trees, and clearing the trail tread of ground cover and other small areas adjacent to the trail would directly affect vegetation in these areas. The effect to vegetation would occur on a narrow, confined area and the overall vegetation effect would be classified low. See Section 3.3.2, Wetlands for additional vegetation information.

Mitigations:

- ~~Move~~ Trail location ***would be established where*** ~~if~~ possible to avoid ***the removal of*** large anchor trees (largest trees in the area).

Sensitive Plants

An unknown number of sensitive plants would be affected under the proposed action.

Mitigations:

- Conduct a sensitive plant survey and if possible route trail and move proposed infrastructure around sensitive plant locations.
- Follow mitigations described in Section 3.3.2.2 Wetlands.

Noxious Weeds

Managing the trail system in the area under the easements would lead to identification and reclamation of problem weed areas on trails and at trailheads. The proposed action could have a positive moderate impact on the weed infestation near the railroad crossing. The exposed areas resulting from construction would have a greater risk of weed infestation. There is a moderate risk that more noxious weeds would be spread by ~~increased activity~~ ***construction activities in the short term; however, with mitigations, the increase in noxious weeds would be low.***

Mitigations:

- ***Grass seed mix prescribed by the DNRC would be used for trail cut slopes and wasted material. Bare soil should be seeded within seven days to stabilize soils and reduce the risk of weed infestations***.
- Monitor for the spread of noxious weeds and treatment per Montana County Noxious Weed Management Act, Mont. Code Ann., 7-22-2101, et seq, as needed.

- DNRC would approve 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.

3.2.2.3 Cumulative Effects of the Proposed Action

Potential cumulative effects to vegetation include increased soil area exposed to weed infestation as the area would receive additional public access and use under recreation management. Increased public use from previously approved or planned easements and trails would increase public information on how to use the trail responsibly to reduce the spread of noxious weeds. Increase in cost and time of managing current and future timber sales in the area due to increased complications of arranging forest management activities around a recreational corridor.

3.3 Water Resources

3.3.1 Existing Environment

Surface Water

The surface water analysis area is the Whitefish Lake watershed. There are four perennial tributaries to Whitefish Lake on the proposed easement areas — Swift Creek, Lazy Creek, Smith Creek, and Brush Creek — and intermittent channels are present on the proposed Close the Loop Trail Easement area (Figure 2).

Swift Creek, the largest tributary to Whitefish Lake, drains 63 percent of the Whitefish Lake watershed (Whitefish Lake Institute [WLI] 2015). Drainage area of Swift Creek upstream of its confluence with Whitefish Lake is approximately 76.5 square miles. Its headwaters originate between Herrig Mountain (7,274 feet) and Link Mountain (7,230 feet) north of Whitefish Lake. Swift Creek is a high gradient stream, widely variable in volume, with potential for movement of heavy debris during spring floods. A large majority of the watershed can be classified as an upland forest ecosystem, with the remaining portion classified as a riparian forest ecosystem. Recent aerial photos of the Swift Creek watershed show numerous timber sales have been completed and show the different stages of reforestation in the watershed. Upper Whitefish Lake is located on the East Fork Swift Creek with two unnamed alpine lakes creating the two tributaries that form the West Fork Swift Creek. Several other small alpine lakes within the watershed create tributaries to the West Fork Swift Creek.

Physical habitat features for Swift Creek are summarized in the Fisheries Resources Summary Report (Watershed Consulting, LLC 2008) and include summaries for three reaches in main Swift Creek, two reaches in West Fork Swift Creek and three reaches in East Fork Swift Creek. Channel characteristics within the main stem Swift Creek were summarized for three reaches, with the proposed Swift Creek bridge located in Reach 1 between the confluence with Whitefish Lake and a spot ¼ mile downstream of Anchor Creek. Anchor Creek is located approximately 3.5 miles upstream from the confluence

and flows from the crest of the Whitefish Range east into Swift Creek. All stream physical habitat data were collected using the U.S. Forest Service R1/R4 aquatic inventory procedure. A summary of the physical habitat data collected within the 3 ¼ miles of the downstream reach (Reach 1) of the main stem of Swift Creek are presented in Table 4.

Table 4. Swift Creek Physical Habitat Features

Generalized Rosgen Type	C
Estimated Gradient (feet/foot)	2.0
Habitat Length Total (feet.)	20,790
Mean Width (feet.)	25.6
Percent Pools (percent)	15.6
Mean Maximum Depth (feet)	4.01
Mean Width to Depth Ratio (unitless)	45.3
Pieces Large Wood (Number per 100 feet)	1.8
Percent Stable Bank Mean (percent)	92.6
Percent Undercut Bank Mean (percent)	0.4

These values are fairly typical of forest ecosystem streams in the lower portion of the watershed. Two values in the table should be discussed further. The percent pools value (15.6 percent) is low, as it should be in the 30 percent range, and the mean width to depth ratio (45.3) is high, which means that the average depth is approximately 0.5 foot. These shallow depths do not provide good fish habitat.

Lazy Creek is a meandering low gradient stream that drains 13 percent of the Whitefish Lake watershed, with a well-confined stream bed that widens into an extended wetland seasonally (WLI 2015). Lazy Creek flows through approximately a half mile of private land before entering Whitefish Lake. Drainage area of Lazy Creek upstream of its confluence with Whitefish Lake is approximately 16.2 square miles. Similar to Swift Creek, the Lazy Creek watershed can be classified as an upland forest ecosystem with riparian forest ecosystems and meadows interspersed in the valley bottoms. Recent aerial photos of the Lazy Creek watershed show numerous timber sales have been completed and also show the different stages of reforestation in the watershed. Two of the three main tributaries of Lazy Creek originate at alpine lakes and additional lakes exist along the upper reaches of the tributaries.

Based on information collected from topographic maps, drainage area calculations and a site visit, Lazy Creek has a lower gradient, similar mean width, higher percentage of pools, similar mean maximum depth, lower width to depth ratio, and a similar volume of large wood, percent stable bank, and percent undercut bank. The primary reason for these differences is the lower gradient in Lazy Creek that creates a meandering channel rather than a pool/riffle channel.

The Smith Creek headwaters are located on Flathead National Forest-managed land, and the stream flows through private land into Smith Lake, which is located on

DNRC-managed state land. Smith Lake is approximately 18 acres and is impounded by a DNRC-managed dam. It is the only lake present within the proposed Public Recreation Use Easement Area; there are no lakes within the proposed Close the Loop Trail or Swift Creek Trail corridors (Figure 2).

The headwaters of the 283-acre Brush Creek watershed consists of springs that maintain a consistent year-round flow (DNRC 2009). None of the surface water sources (streams or lakes) within the proposed easement areas is listed on the 2016 Clean Water Act (CWA) Section 303(d) list of impaired Montana waters (Clean Water Act Information Center 2016).

Stream Channel Characteristics at Proposed Stream Crossings

The analysis area for stream channel characteristics consists of the proposed creek crossings on Lazy, Swift, Brush, and Smith Creeks and approximately 0.25 mile from the proposed center line. Five pedestrian bridges would be constructed where the proposed trail crosses Smith Creek twice in the proposed Public Recreation Use Easement, and Swift Creek, Lazy Creek, and Brush Creek in the proposed Trail Easement area. The proposed crossings would be located upstream of Whitefish Lake approximately 0.8 miles (Smith Creek), 1.1 miles (Swift Creek), 0.7 miles (Lazy Creek), and 0.7 miles (Brush Creek). At each of these crossings, a pedestrian bridge has been proposed to provide access across the stream channels during all times of the year.

At the proposed Swift Creek bridge site, the active channel flows out of a relatively stable section into a sharp bend along a vertical cut bank and then into a transition reach where the thalweg changes from the left bank to the right bank. At the apex of the bend and vertical cut bank, several pieces of large wood have accumulated in the bend and have stabilized the bank erosion and created several scour pools with large wood overhead cover. A large gravel bar exists on the inside of the bend with a small island and secondary channel between the primary channel gravel bar and high bank. Upstream of the large channel bend, a large section of the west stream bank had been eroded but was filled with large wood material that has stabilized this section of the channel. A low gravel bar and floodplain exists along the east bank of the channel through this reach of the channel.

Above the proposed Lazy Creek bridge site, some bridge infrastructure remains from a temporary bridge used to provide access to the Lazy-Swift 2 timber sale.

At the proposed Lazy Creek bridge site, the active channel flows along the toe of a steep bank along the west side of the channel. An old logging road is present near the top of the bank which consists of a combination of bedrock outcrop, highly compacted soils and loose soils. The bedrock outcrop forces the channel to turn eastward at the proposed bridge site. Along the toe of the west channel bank, the channel is lined with alder and willows at the toe of the steep slope. Along the east channel bank, alder and willows also line the channel edge but the alders and willows extend beyond the

channel edge into the floodplain and wetland areas along the east bank. Conifers become the prevalent vegetation as the elevation increases on the east bank floodplain.

At the proposed Smith Creek bridge crossings, the actual crossing ~~*location was*~~ ***locations were*** not visited during the site tours. Based on the general surrounding topography, the Smith Creek crossing ~~*site is*~~ ***sites are*** likely to have medium to high banks above a narrow stream channel. Due to the size of the Smith Creek watershed upstream of the crossing site and the volume of water generated by the watershed, the ~~*channel is*~~ ***channels are*** likely to contain a mixture of pool, riffle and run habitat types. These habitat features would be created by the cobbles, gravels and sand present in the watershed. The ***channels*** likely contain embedded large or medium wood material that contributes to the formation of habitat features in the ***channels***. Riparian vegetation is likely present along the ***channels*** edges due to the perennial flow in Smith Creek.

At the proposed Brush Creek bridge crossing, the actual crossing location was not visited during the site tours. Based on the general surrounding topography, the Brush Creek crossing site is likely to have low to medium banks above a fairly narrow stream channel. This narrow channel is the result of low volume streamflows generated in the small watershed upstream of the bridge crossing. Springs within the watershed maintain the perennial flow at the bridge site with snow melt and rain storms creating higher flows. Channel characteristics are likely to be riffle-steps created through the cobble, gravels and sands present in the watershed. Channel steps would form due to the presence of wood material that has become embedded in the channel or small cobbles that have moved to create a vane or weir in the active channel.

Wetlands

The analysis area for wetlands includes the proposed Public Recreation Use Easement Trail and the Close the Loop Trail Corridors (16-foot-wide). Wetlands are lands transitional between terrestrial and aquatic systems and are among the most biologically productive ecosystems in the world. These lands are of critical importance to protection and maintenance of a large array of plants and animals, including a significant number of threatened and endangered species, by providing essential seasonal habitats. Wetlands within the Close the Loop Trail analysis area provide important functions including habitat for wildlife, protect the quality of surface water by impeding erosion and trapping sediment, help maintain base flow to Swift Creek and Lazy Creek through the gradual release of stored floodwaters and groundwater, and provide natural flood control protection through the absorption and storage of water during high-runoff periods. The types and size of wetlands in the Close the Loop Trail analysis area are not unique or extensive and are primarily found along the streams and lake shores.

Wetlands and waters of the U.S. are regulated by the U.S. Army Corps of Engineers (USACE) through the CWA Section 404 (b)(1) (40 CFR Part 230 – Section 404(b)(1), 1992). Wetlands are defined as areas that are inundated or saturated by surface or

groundwater at frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (USACE 1987). Wetlands generally include swamps, fens, marshes, bogs, and similar areas.

Wetlands must meet three diagnostic criteria (wetland hydrology, hydric soils, and hydrophytic vegetation) as defined in the Wetlands Delineation Manual (USACE 1987). An area may have wetland characteristics by having the hydrology, soils, and vegetation characteristics, but still not be under the jurisdiction of the CWA Section 404(b)(1) as administered by the USACE. The wetlands in the Close the Loop Trail analysis area have not been field-delineated or surveyed, but were mapped using historical wetland data and aerial photographs. The wetlands and waters of the U.S. ***would*** be delineated using standard USACE procedures, and the delineation boundaries surveyed before the final alignment of the trail is decided.

USACE issues Nationwide Permits for commonly occurring work in wetlands such as construction and maintenance of utility lines, pipelines, bank stabilization projects, and more than 50 other named work types (USACE 2017). The Nationwide Permit No. 42 specifically addresses construction of recreational facilities and states:

> *<u>NWP 42. Recreational Facilities</u>. Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of recreational facilities. Examples of recreational facilities that may be authorized by this NWP include playing fields (e.g., football fields, baseball fields), basketball courts, tennis courts, hiking trails, bike paths, golf courses, ski areas, horse paths, nature centers, and campgrounds (excluding recreational vehicle parks). This NWP also authorizes the construction or expansion of small support facilities, such as maintenance and storage buildings and stables that are directly related to the recreational activity, but it does not authorize the construction of hotels, restaurants, racetracks, stadiums, arenas, or similar facilities.*
>
> *The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300-linear foot limit by making a written determination concluding that the discharge* **would** *result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.*
>
> > *Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (Authority: Section 404).*

In the Close the Loop Trail analysis area (trail with 16-foot buffer), two main freshwater wetland types are found: (1) Emergent Wetlands, and (2) Scrub-Shrub Wetlands. These wetland types are described by the U.S Fish and Wildlife "Cowardin" classification system (U.S. Fish and Wildlife Service [USFWS] 1992).

Emergent Wetlands are characterized by erect, rooted, perennial herbaceous plants with the vegetation present for most of the growing season in most years. The Emergent Wetlands would support a plant community including various sedge species and other wetland grasses and forb species. Emergent Wetlands are found throughout the U.S.

Scrub-Shrub Wetlands are dominated by woody vegetation, shrubs, and young trees, typically less than 20 feet tall. Scrub-shrub Wetlands are associated with creek terraces along Swift and Lazy Creeks and would support willow species (Drummond's, Bebb's, and Geyer are common), Mountain alder, redosier dogwood, and other wetland grasses and forbs. The Scrub-Shrub wetlands may be in a successional stage trending toward Forested Wetlands. Scrub-shrub wetlands are also commonly found across the U.S.

Wetlands or waters of the U.S. that would be crossed or encountered are found on only three areas along the entire proposed trail. These areas are shown for Swift Creek (Figure 4), Lazy Creek (Figure 5), and near Boyle Lake (Figure 6). The acres and linear feet of trail at the three areas crossed or touched by wetlands are provided in Table 5. The area of wetlands encountered by the Close the Loop Trail totals 0.25 acre, which would allow this project to be completed under a Nationwide Permit 42, unless field delineation of wetlands identifies additional wetlands that exceed the 0.5-acre threshold.

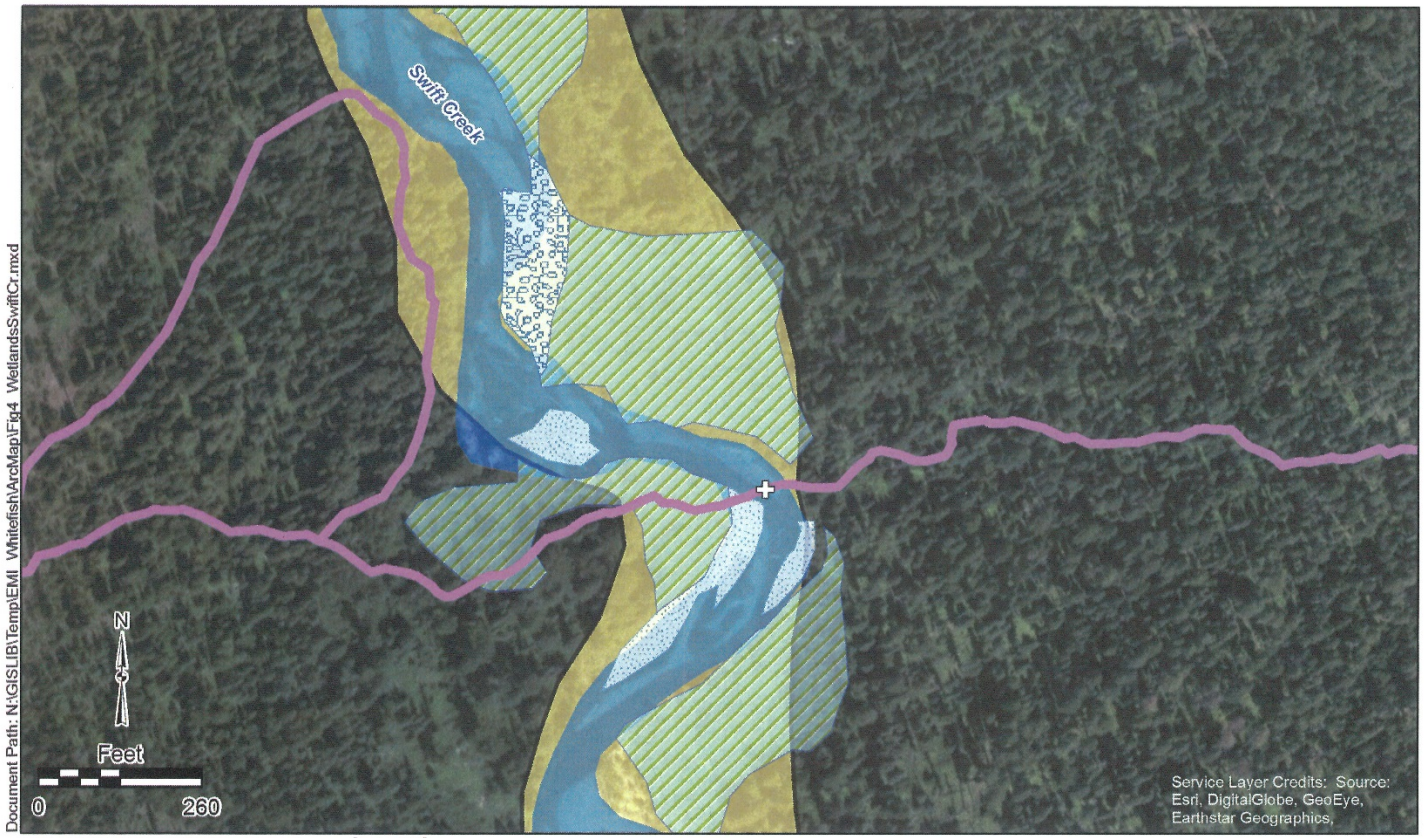
Table 5. Wetlands Acres and Distances for the Proposed Close the Loop Trail Easement

Wetland Type	***Locality***	***Outside Public Recreation Use Easement***	
		Area (acres)	***Linear Feet***
Riparian Scrub-Shrub	Swift Creek	0.1	274.8
Riparian Scrub-Shrub	Lazy Creek	0.05	127.6
Freshwater Scrub-Shrub Wetland	Boyle Lake	0.1	320.4

The following factors were considered when evaluating potential impacts to wetlands from the proposed Close the Loop Trail construction activities:

- Will there be any permanent loss of wetlands?
- Will there be any temporary loss of wetlands?
- Will there be effects to nearby wetlands from changes to surface water drainage or water quality (sedimentation)?
- Will there be any potential for filling any wetlands from grading or construction activity?

Figure 4. Wetlands at Swift Creek



Wetland Type Source: Montana Natural Heritage Program - Wetland and Riparian Mapping, Nov. 2017

Legend

- Proposed Bridge
- Proposed Close the Loop Trail Easement
- Estimated 100-Year Floodplain Boundary*

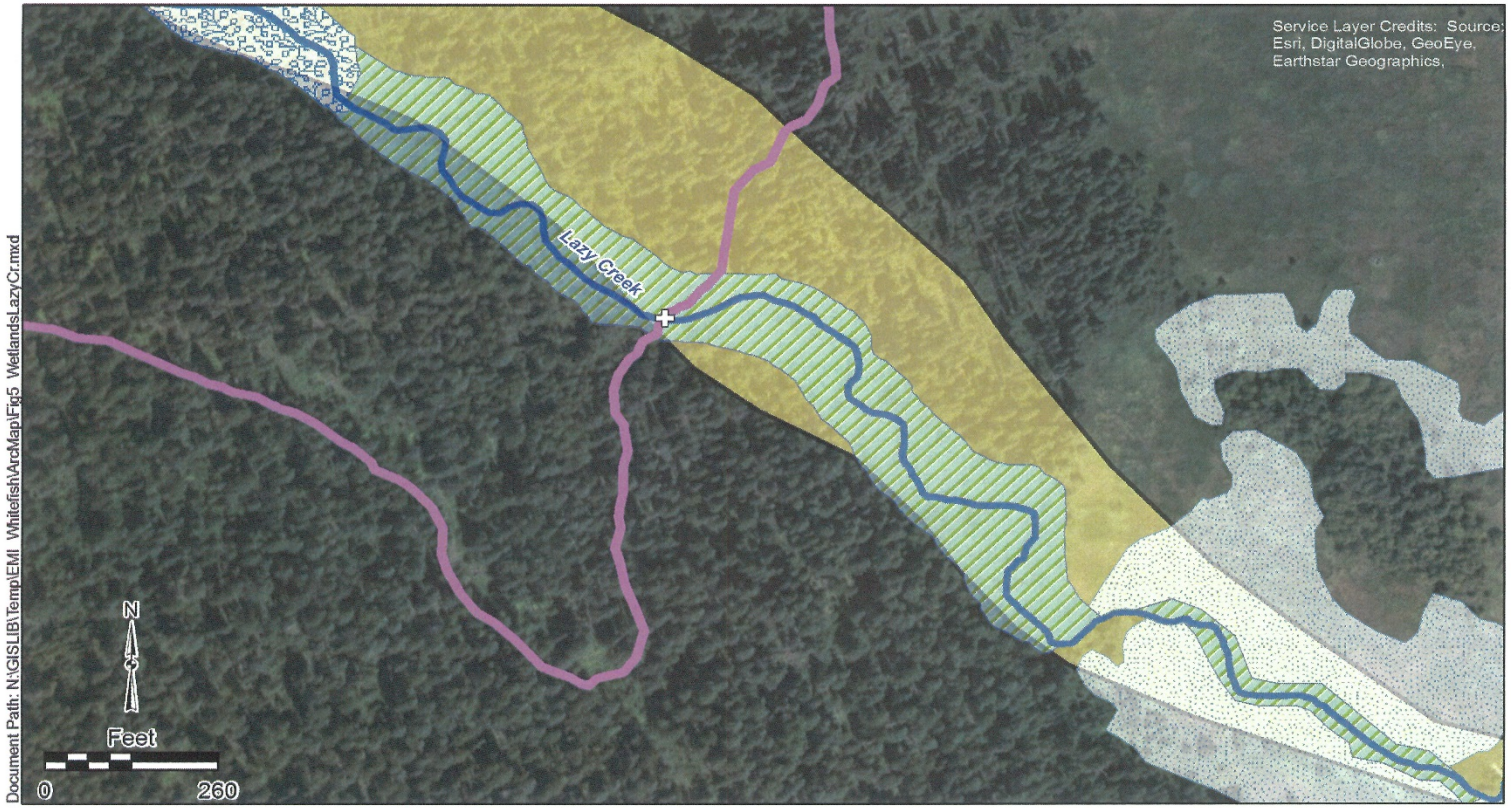
*Downloaded from FEMA

Wetland Type

- Freshwater Emergent Wetland
- Freshwater Scrub-Shrub Wetland
- Riparian Scrub-Shrub
- Swift Creek

Figure 4
Wetlands at Swift Creek
Close the Loop Trail and Recreation Use Easements EA
Flathead County, Montana

Figure 5. Wetlands at Lazy Creek



Wetland Type Source: Montana Natural Heritage Program - Wetland and Riparian Mapping, Nov. 2017

Legend

- Proposed Bridge
- Proposed Close the Loop Trail Easement
- Estimated 100-Year Floodplain Boundary*

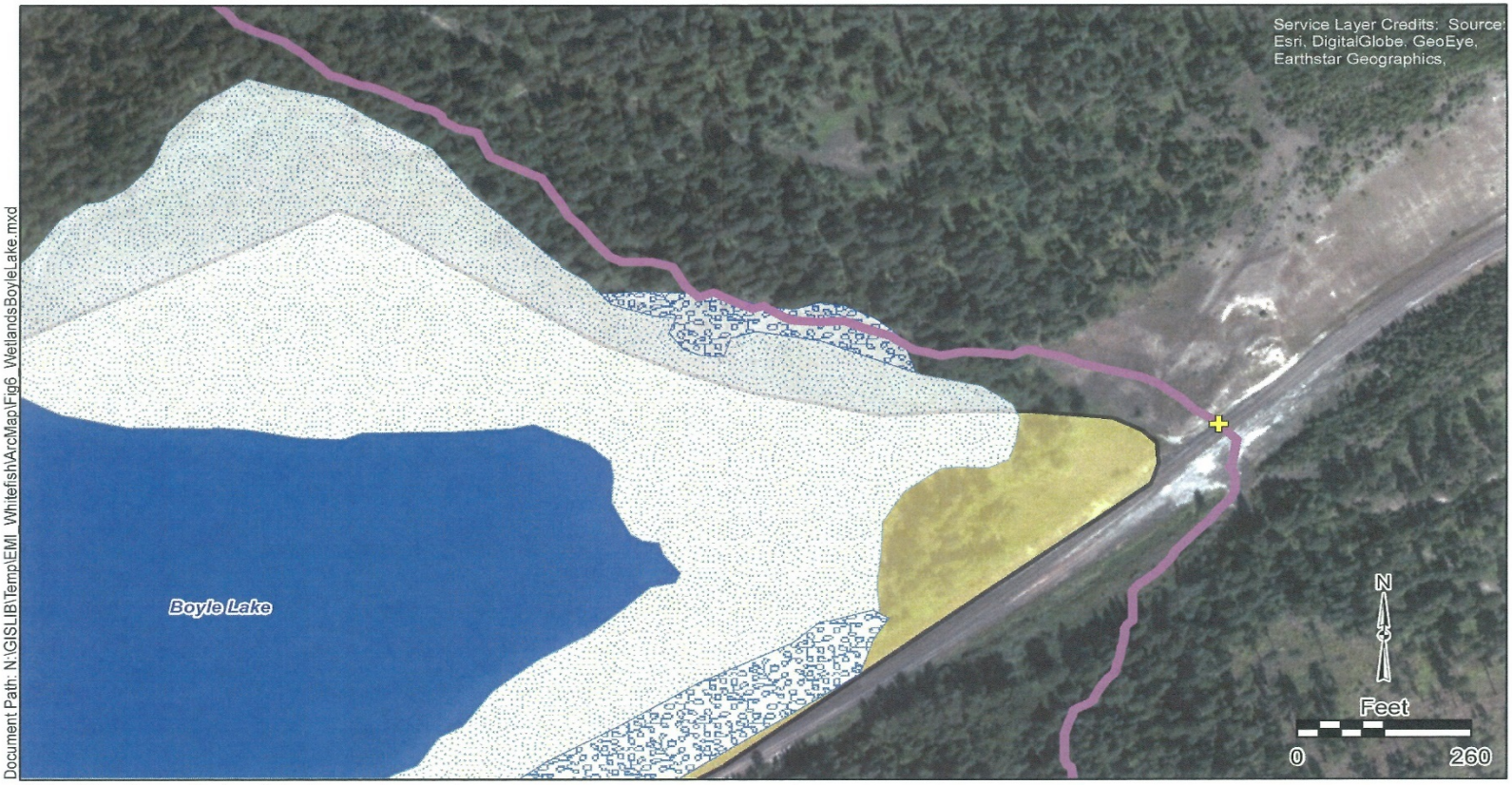
*Downloaded from FEMA

Wetland Type

- Freshwater Emergent Wetland
- Freshwater Scrub-Shrub Wetland
- Riparian Scrub-Shrub
- Lazy Creek

Figure 5
Wetlands at Lazy Creek
Close the Loop Trail and Recreation Use Easements EA
Flathead County, Montana

Figure 6. Wetlands at Boyle Lake



Wetland Type Source: Montana Natural Heritage Program - Wetland and Riparian Mapping, Nov. 2017

Legend

- Proposed Railroad Crossing
- Proposed Close the Loop Trail Easement
- Estimated 100-Year Floodplain Boundary*

*Downloaded from FEMA

Wetland Type

- Freshwater Emergent Wetland
- Freshwater Scrub-Shrub Wetland
- Boyle Lake

Figure 6
Wetlands at Boyle Lake
Close the Loop Trail and Recreation Use Easements EA
Flathead County, Montana

3.3.2 Environmental Effects

Conceptual designs of the pedestrian bridges have been proposed for each of the crossings, but no design details have been developed to date to allow a complete assessment of the impact to the stream channel characteristics caused by bridge installation. Discussions of the environmental effects provided below describe environmental responses of the stream channel features to installation of a bridge crossing in very general terms.

3.3.2.1 No Action – Direct and Indirect Effects

Surface Water

There would be no additional risk to surface water quality or quantity under No Action. The proposed easement areas would continue to be managed by DNRC for forest management.

Stream Channel Characteristics at Proposed Stream Crossings

There would be no additional risk to existing channel characteristics where high flow events or debris accumulations would naturally force the flow out of the current channel configuration. Bank erosion and subsequent gravel bar deposition would continue to reform the channel characteristics of new channels.

Wetlands

There would be no additional risk to wetlands as a result of No Action however, the general area could experience increased recreational use even without defined and constructed trails.

3.3.2.2 Proposed Action– Direct and Indirect Effects

Surface Water

Construction of the trail near and the bridges across streams would create a moderate risk of increasing the production and delivery of fine sediment to streams and compacting and eroding stream banks. Off-trail activities at these stream crossing sites would have a moderate risk of increasing the potential for bank instability due to user defined trails (off-trail) on steep slopes, especially along Swift Creek. This impact would be lowered with mitigations.

There is a low risk of trail alignment and cross section shape altering overland flow patterns and creating water flows down the new trail into streams. Thus, impacts to surface water contribution to the active stream channel caused by installation of the trail would be low.

The risk that precipitation runoff would cause off-site sedimentation onto the nearby vegetated areas and, where near a stream, could impact water quality and result in off-site sedimentation is low.

During construction of trails, storm events would likely have a moderate impact on the stream banks during construction by potentially causing bank erosion and delivery of sediment to the stream channel. This impact would occur during construction and would be low with mitigations.

Mitigations:

- Signage emphasizing importance of staying on the trail, especially at stream crossings.
- ~~The~~ ***New*** Whitefish Trail ***segments*** would be built according to the IMBA standards and applicable BMPs to minimize or eliminate these impacts to water resources.
- Construct bridges in the fall, during historically low ~~precipitation~~ ***stream flow and after obtaining the appropriate Fish, Wildlife & Parks 124 permits***.
- ***The City of Whitefish work with DNRC and other agencies on trail design and management of the trail corridors****.*

Stream Channel Characteristics at Proposed Stream Crossings

Constructing the pedestrian bridges across Swift Creek and Lazy Creek would have a negligible risk of changing the existing hydrologic regime in these streams. The volume of water generated within the Swift Creek and Lazy Creek watersheds would not change because of the bridge installation.

Impacts to the stream channel characteristics in the stream sections upstream and downstream of the proposed bridge locations would be determined by the placement of the abutments and piers on the banks in the active stream channel, within the bank full flow channel, or within the 100-year floodplain.

Bridge abutments or piers installed along the edge of the active stream channels would have a major risk of changing the local channel hydraulic characteristics but would depend on the velocity and duration of flood flows. These changes would include increased bank scour upstream and downstream of the abutment and increased channel bed erosion along the toe of the abutment. All material eroded from the banks and channel bed would be transported downstream and modify the channel and bank habitat features.

Bridge abutments or piers installed out of the active channel but within the 100-year floodplain would have a low to moderate risk of changing the local channel hydraulic characteristics. Severity of the impact on the local channel hydraulic characteristics would depend on the velocity and duration of flood flows around the base of the abutment. If velocities are large enough and last long enough, scour around the base of the abutment would undermine the stability of the abutment.

Bridge abutments or piers installed out of the 100-year floodplain would have a negligible to low risk of changing the local channel hydraulic characteristics. Any impacts to the local channel hydraulic characteristics would require flood flows

extending beyond the predetermined 100-year floodplain delineation. However, since the edge of the 100-year floodplain is a considerable distance vertically and/or horizontally from the active channel, the likelihood of changes to the local hydraulic characteristics would be negligible.

Freeboard between the lowest support members of the bridge and the water surface elevation of the design flood flow must be sufficient to pass all ice, large wood and other debris contained in the flood waters. With sufficient freeboard, there would be a low risk of bridge damage due to debris buildup on the bridge support structure.

Ice buildup around the bridge piers installed in the 100-year floodplain outside of the bank full flow channel and damage to the active river channel and floodplain would have a low to moderate risk of occurrence. This range of risk is correlated to the variability of stream flows, climatic conditions and precipitation that are likely to occur at the bridge sites at any given time.

Constructing bridges across the smaller streams (Smith and Brush Creeks) would have a negligible risk of changing the existing local channel hydraulic characteristics. All construction activities would be completed during low flow periods with a very low probability of flows greater than an average flood flow. Increased flows during the summer construction period would be caused by intense thunderstorm rain events.

Equipment used to construct the Swift Creek and Lazy Creek pedestrian bridges would have to cross ***one of the*** ~~Swift Creek~~ stream ***channels*** to prepare abutment sites, install abutments, prepare pier sites and install bridges. Depending on the location, crossing Swift Creek would have a low to moderate impact. ~~If a temporary bridge placed on the abutments remaining in Swift Creek upstream from the proposed bridge crossing were used by construction equipment, material trucks, and construction workers, impacts from crossing Swift Creek during construction would be low.~~ If Swift Creek were forded during construction, impacts to the creek would be moderate. Along the trail route and at the bridge site (more so for Swift and Lazy Creeks) impacts during bridge construction would be moderate but ***with the implementation of mitigation measures*** would be ***low to*** negligible once construction was completed.

Mitigations:

- During the preliminary design phase, channel floodplain features must be field verified to define the bank full flow channel widths and 100-year floodplain extents.
- Place bridge abutments on banks or terraces above or outside the 100-year floodplain.
- Install abutments in a stable stream reach that is not currently undergoing lateral migration of the primary stream channel.
- Install piers on an intermediate bank above or outside the bank full flow channel but can be within the 100-year floodplain.

- Maintain vegetation on the intermediate bank surrounding the pier at the current or higher density. Vegetation on the floodplains creates roughness and slows water velocities to levels that minimizes erosion and scour around the base of the pier.
- Carefully choose stream crossing locations for construction equipment to minimize impacts to the stream banks, floodplains, and active stream channel.
- Low gradient banks would be the preferred access route to minimize bank disturbance.
- Densely vegetated floodplains are the preferred access route with alders and willows, as the knocked down vegetation would prevent direct contact of the construction equipment with the floodplain.
- Shallow riffles are the preferred channel crossing locations as the substrate is typically larger with low slope gravel bars typically leading into and out of the riffle.
- Clean equipment tracks and tires before channel crossings to reduce increased short-term turbidity.
- To eliminate ~~the~~ ***many*** stream crossing ***impacts*** at the bridge sites, ***if possible, the existing bridge infrastructure remaining at Lazy Creek*** that provided access to the timber sale between the proposed Swift Creek and Lazy Creek bridge sites could be ~~reinstalled~~ ***used to build a temporary bridge to move construction equipment*** across ~~Swift~~ ***Lazy*** Creek. ***Once the Swift and Lazy Creeks bridges were installed, the temporary bridge would be removed***.
- ***The City of Whitefish work with DNRC and other agencies on trail design and management of the trail corridors.***

Wetlands

Based on historical wetland data and aerial photographs as depicted in Figures 4, 5, and 6, the proposed Close the Loop Trail would be constructed along a total length of approximately 5.9 linear miles and on 11.3 acres, which would affect a maximum of 0.25 acre of wetlands. Waters of the United States would be crossed at the Swift and Lazy Creek trail crossings, but bridge spans and construction design methods would limit the impacts at these creek crossings. The inclusion of boardwalks for trails over the wetlands would minimize impacts to the wetland characteristics and habitats provided by the hydric soils, wetland hydrology, and hydrophytic vegetation. Construction equipment crossing existing wetlands would negatively affect the wetlands function from compaction by equipment and storm runoff from impacted soils into wetlands during construction. The wetland areas associated with Swift and Lazy Creeks are more susceptible to compaction and erosion and sedimentation due to concentrated off-trail recreational use near these water crossings. Impacts to wetlands and waters of the U.S. from the Close the Loop Trail would be low with implementation of BMPs during construction and with mitigations.

Mitigations:

- ***The wetlands and waters of the U.S. would be delineated using standard USACE procedures, and the delineation boundaries must be surveyed before the final alignment of the trail is decided***.
- ***Elevated boardwalks will be the primary structure to cross over wetlands (freshwater, riparian and riverine). This mitigation would minimize impacts to the wetland characteristics and habitats provided by the hydric soils, wetland hydrology, and hydrophytic vegetation. Other trail building methods may be considered and approved by DNRC Managers and Specialists***.
- "Construction mats or equivalent" must be installed in the wetland for the construction equipment to travel across. The mats are installed directly in the wetland with the large surface area preventing the mat from sinking when the construction equipment is driven over them. When work is complete, the mats are removed from the wetland.
- The trail easement would be 16 feet wide but would have some flexibility to move to avoid certain areas such as wetlands.
- Bridge and trail construction ***would*** occur during times of historically low ~~precipitation~~ ***stream flow***.
- Added soft and natural landscaping practices (emplaced trees, rocks, etc.) at water crossings would help keep hikers on the trail.
- The final 16-foot Close the Loop Trail Easement corridor could be slightly relocated to avoid some wetlands.
- Construction BMPs to limit off-site sedimentation during construction would be implemented.
- ***The City of Whitefish work with DNRC and other agencies on trail design and management of the trail corridors.***

3.3.2.3 Cumulative Effects of the Proposed Action

Past and present recreational development (Trail Runs Through It/Whitefish Trail, Whitefish Trail - Beaver-Skyles Public Recreation Easement, Whitefish Trail - Phase III, Swift Creek) has increased recreational use in the area. Other planned or proposed recreational developments and easements, such as the disc golf course, Lazy Creek Land Purchase, Phase I, II, and Taylor Hellroaring Project, would increase the overall use in the area and could increase the potential cumulative effects to surface water, stream channel characteristics, and wetlands. Impacts to water resources and wetlands would be low if mitigations are followed and public information provided on how to use the trail responsibly, including where to stay on the trail and not impact sensitive areas next to the trail.

3.4 Wildlife and Fish

3.4.1 Existing Environment

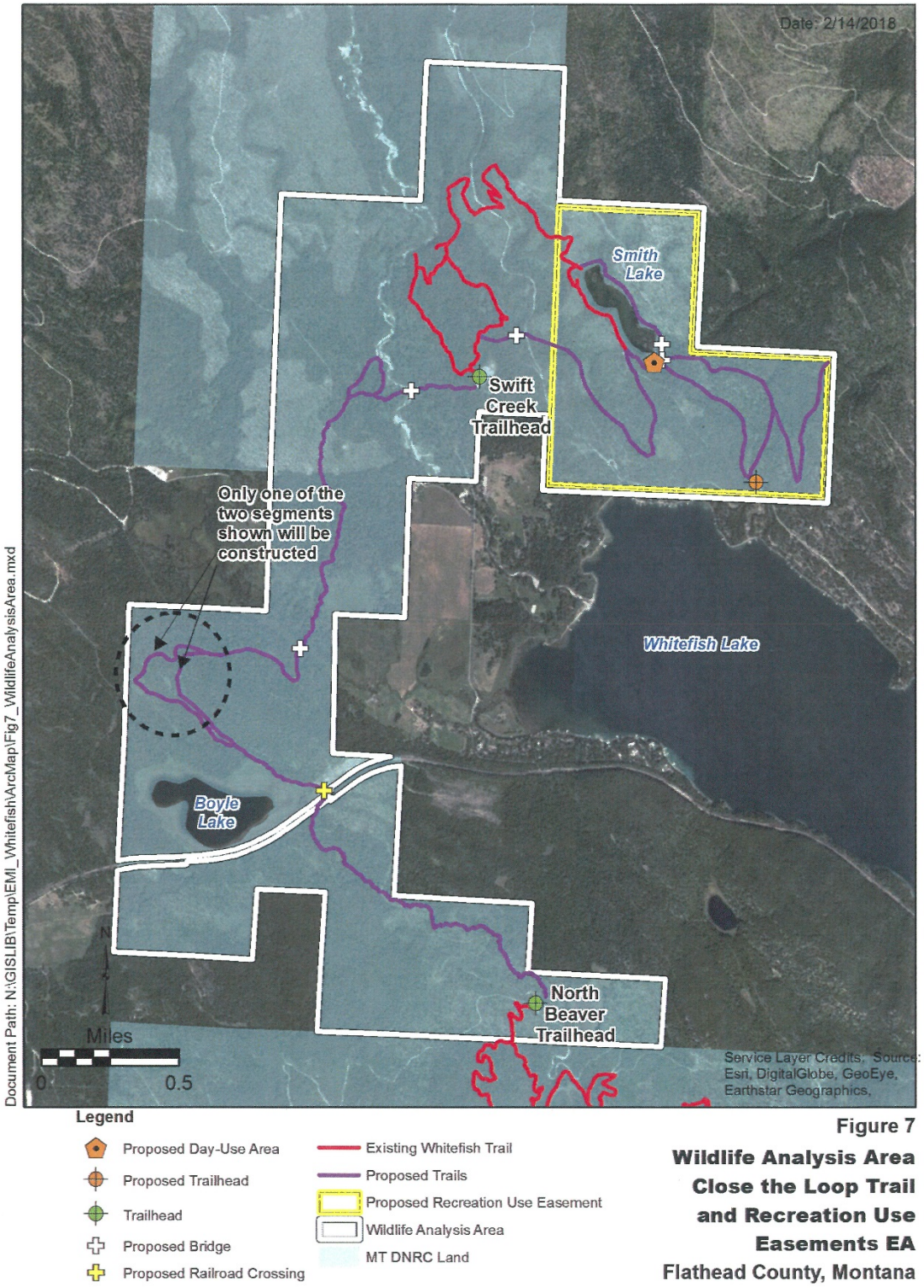
Federal laws relevant to this analysis include the Endangered Species Act, Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act. In addition, relevant state regulations and plans include DNRC Forest Management Rules (Administrative Rules of Montana [ARM] 36.11.4) and DNRC Forested Trust Lands Final Environmental Impact Statement and Habitat Conservation Plan (DNRC and USFWS 2010). A portion of the existing trails have previously been analyzed with respect to wildlife resources in the Whitefish Trail Phase III: Swift Creek EA (DNRC 2012), which is incorporated into this analysis by reference. The previously analyzed trails include 0.7 mile that exist in the proposed 480-acre Public Recreation Use Easement Area and 2.8 miles that exist to the west of the proposed Public Recreation Use Easement Area.

DNRC manages state lands for biodiversity at two scales: a coarse filter approach, which promotes an appropriate mix of stand structures and compositions across the larger landscape of DNRC forested lands; and a fine filter approach, which focuses on individual plant and animal species. The analysis in the direct/indirect effects section of the EA primarily uses a fine-filter approach. Impacts to fish and wildlife from human recreational use are considered across a broader spatial scale in the cumulative effects analysis.

Direct and Indirect Effect Analysis Area

For considering direct and indirect effects to wildlife, the analysis area is 2,347 acres (3.7 square miles) of land in the parcels surrounding the existing and proposed trails (Figure 7). All of the area is state land ~~with the exception of the Boyle Lake water body~~. Within this analysis area, there are approximately 15.5 miles of existing unpaved roads (5.0 miles of which are open and accessible to the public and 10.5 miles where public ***motorized*** use is restricted, see Figure 8). Open road density is 1.3 miles per square mile and density of open and restricted roads is 4.2 miles/square mile. In addition to the existing trails (2.8 miles) that are part of this project, there is a 0.3-mile segment of an existing trail heading north from the North Beaver trailhead. Density of existing trails in the analysis area is 0.8 miles per square mile. Approximately 2.1 miles of a groomed snowmobile route is within the analysis area, which consists of open road during the non-winter months. No areas are groomed for skiing. Approximately 1.2 miles of active railroad track bisects the analysis area. The licensed disc golf course (to be built in 2018) is wholly within the analysis area and will impact 1.7 acres. The Whitefish Gravel Pit, which also serves as the Swift Creek trailhead, is within the analysis area. The trailhead is used ~~in winter and summer~~ ***during all*** seasons. Timber has been harvested from approximately 526 acres in the analysis area in the last 18 years.

Figure 7. Wildlife Analysis Area



Wildlife inhabiting the far northern and southern portions of the analysis area currently experience moderate levels of disturbance from people hiking, fishing, biking, ***disc golf***, hunting, snowmobiling, dog sledding, and gathering firewood. The average number of trail users per day on existing Swift Creek trails ranges from 18 in winter to 65 in summer (see Section 3.6.1 for more detail). Due to its proximity to the city of Whitefish, the area receives elevated use relative to recreational areas located further distances from the city. There are rural residential areas and vacation homes on adjacent private lands in the Smith Lake and Swift Creek areas. ***Wildlife that currently use these portions of the analysis area are likely habituated to moderate levels of human disturbance***.

As there are currently no hiking trails or public/accessible roads present between Swift Creek and Lazy Creek and between Lazy Creek and Boyle Lake, these areas likely provide security habitat for wildlife. Existing habitat alterations in this area between the Swift and Lazy creeks include timber harvest and two roads where ***motorized*** public use is restricted. Important wildlife travel corridors and foraging areas are present in riparian zones along Swift Creek and Lazy Creek, and to a lesser degree along Brush Creek and Smith Creek. Aquatic, riparian, and wetland habitat was estimated from Montana Natural Heritage Program/National Wetlands Inventory map data (detailed field mapping of wetlands will be completed during final trail design phases and permitting). In terms of riparian habitat, there are approximately 40 acres of riverine habitat, 10 acres of adjacent forested/shrub riparian habitat and 31 acres of adjacent forest/shrub wetlands. Waterfowl and amphibian breeding habitat is present at Boyle Lake (approximately 1.2 miles of shoreline) and Smith Lake (0.9 mile of shoreline). There ***is*** a total of 66 acres of open water at these lakes and other smaller ponds and 60 acres of emergent wetlands/marsh on these shorelines and other wetlands in the analysis area. Total acres of riparian and wetland habitat in the analysis area is 140 acres.

The analysis area is within an area of the Rocky Mountains that is important for maintaining wildlife connectivity between large intact landscapes, such as the northern Rockies in Canada and Glacier National Park (Montana's State Wildlife Action Plan [MSWAP 2015]). In terms of coarse filter resources, there are approximately 479 acres of old growth and 1,430 acres of mature forest within the analysis area. Evaluation of old growth and mature forest in the easements was based on current DNRC stand-level inventory Geographic Information System (GIS) and wildlife habitat GIS layers. Old-growth forest patches were identified in these databases based upon tree density and size characteristics described by Green (Green and others [1992]), and mature forest was defined as forest stands that have at least 40 percent ***overstory*** canopy cover and are composed of trees primarily larger than 9 inches diameter at breast height. The majority (90 percent) of the analysis area is forested (2,098 acres). Forest types based on DNRC mapping indicate that a western larch/Douglas-fir community comprises approximately 60 percent of the forested area. Ponderosa pine, mixed

conifer, and Douglas-fir stands are also present. Non-forested areas (249 acres) include riparian areas, wetlands, lakes, and streams. Snags and coarse woody debris are present throughout the forested areas. Timber was recently harvested within a portion of the proposed Close the Loop Trail corridor between Swift Creek and Lazy Creek (approximately 1.7 acres). Some mature seed trees were maintained, resulting in current conditions of an open canopy with widely spaced trees and an understory of grasses

Cumulative Effects Analysis Area

The area used to analyze cumulative effects to wildlife resources is shown in Appendix B and encompasses 62,773 acres (98 square miles). The cumulative effects analysis area (CEAA) is within the Stillwater River valley north of Whitefish Lake, between the Salish Mountains to the west and the Whitefish Range to the east. The CEAA boundary was defined based on surrounding watershed boundaries, topography, and major roads and streams to capture an area that experiences similar ecological processes as the easement areas and is broad enough to capture populations and space requirements of wide-ranging species with large home ranges. The CEAA is approximately 57 percent private (35,937 acres). The remaining 43 percent is public land (26,836 acres). Most of the public land is state trust land administered by DNRC; small state parks are present as well as National Forest. Approximately 44 percent of the private lands are owned by timber companies. Human alterations of the landscape include rural residential areas (primarily along the Whitefish Lake and outskirts of the city of Whitefish), agricultural fields, and a golf course. Timber harvest has occurred on adjacent private land owned by timber companies. There are 189 miles of open road in the CEAA. Road density is 1.9 miles/square mile for roads that are open to the public, and density of both open and restricted roads is 3.8 miles/square mile. There are 38.8 miles of existing trails in the CEAA (density is 0.4 miles/square mile), including trails on state land and the Flathead National Forest. Outdoor recreational activities occur throughout public lands in the area, and are similar to those occurring in the analysis area. Based on a 2016 land cover map by National Gap Analysis Program, the majority (57 percent or 35,971 acres) of the CEAA is coniferous forest. The next most common land cover types include 8,748 acres of harvested forest (14 percent of CEAA) (date of harvest unknown but harvest was recent enough to be clearly visible on satellite imagery); 5,700 acres of wetland and riparian (9 percent); 3,897 acres of developed (6 percent) and 3,812 acres of open water (6 percent). Types comprising one or two percent of the CEAA include montane grasslands, agriculture, deciduous shrublands, and recently burned forest.

Fish

Both Swift Creek and Lazy Creek flow out of the glaciated valley north of Whitefish Lake, which provides a clean, cold source of water into both streams. Many of the tributaries to both streams begin as outlets to alpine lakes, which produces consistently clean, cold water into the tributaries. These cold-water tributaries provide excellent habitat for several native, cold water fish species present in the Whitefish Lake basin.

With a direct connection to Whitefish Lake, Swift Creek provides spawning habitat for adfluvial bull trout and a majority of westslope cutthroat trout adults migrating out of Whitefish Lake.

Fish present in Lazy Creek are westslope cutthroat trout, sculpin, and eastern brook trout. Fish in Swift Creek include those in Lazy Creek and bull trout and longnose sucker.

All of the fish species present in Swift Creek and Lazy Creek are native to the drainages except the brook trout. These fish were introduced into the state in the late 1800s and actively propagated for 60 years, resulting in wide spread distribution of the species throughout the state.

Each life stage of cold water fish utilizes the various components of the stream environment for feeding, resting, cover, spawning, and migration. Differences in utilization periods between the species are basically dictated by when the adults spawn. Bull trout and brook trout spawn in fall, westslope cutthroat trout and sculpin spawn in spring, and longnose sucker spawn in late spring to early summer. For fall spawners, adult migration periods and spawning occur in the fall with the eggs incubating in the gravel over the winter, with emergence in the spring. For spring spawners, adult migration and spawning are in the spring with eggs incubating in the gravel during the spring and emergence in late spring. The early rearing period begins as fry come out of the gravel, which is followed by the juvenile rearing period. Juvenile rearing typically lasts for several years in cold water streams because of the slow growth rates of these fish. As these fish mature into adults, they then transition into the adult spawning population.

As fish mature from fry to juveniles to adults, the habitat types within the stream environment that each of life stages occupy changes. Physical characteristics of the different habitat types, — pool, riffle, run, glide, or pool tailout — dictate the fish usage according to the water depth and velocity within each habitat type. For example, fry typically occupy lateral habitats along the margins of riffles or runs because of the shallow water depths and low water velocities. As the fish grow and become stronger, they move into the riffle, run, and pool habitats for feeding, resting, and cover. An additional factor that must be considered is the habitats that all age classes of fish use during high flow periods during spring runoff.

A key factor to maintain high quality habitat for all life stages of the fish species in Swift Creek and Lazy Creek is maintaining the dynamic equilibrium level of sediment in all of the habitat features used by these fish. Excess sediment created by localized features such as bank failures or scour around bridge abutments or piers modify this balance and fill the inter-gravel spaces with sand and silt. This infilling of the stream gravels has a significant impact on aquatic insect production, fry and juvenile cover and spawning red viability.

Big Game

Big game species likely use the analysis area during all times of the year. All of the 2,347-acre analysis area is mapped as big game winter range and general habitat by MFWP (MFWP 2008). Winter range encompasses important areas where ungulate populations tend to congregate from December through April, though the area may also be used year-round (MFWP 2017b).

The analysis area is accessible to hunters via 3.1 miles of existing trails and five miles of open public roads. Due to the proximity to nearby rural residences, the city of Whitefish, and Flathead Valley, there is likely moderate fall hunting pressure in the northern portions of the easements that have existing trails and roads, and in the area south of Boyle Lake/railroad tracks. The portion of the ~~easements~~ ***analysis area*** between Swift Creek and Lazy Creek (approximately one-mile straight-line distance), and between Lazy Creek and Boyle Lake (approximately a 0.5-mile distance) is difficult to access and likely receives little hunting pressure, and therefore may serve as important security habitat to big game during the hunting season.

White-tailed deer (*Odocoileus virginianus*) are most commonly found in river and creek bottoms and also in dense vegetation at higher elevations. In western Montana, important summer habitat includes mature subclimax coniferous forest and cool, moist areas. In winter, white-tailed deer prefer dense canopy cover, uncut forests, moist habitat types, and low snow depths (MFWP 2017a). The analysis area provides winter and general year-round range for white-tailed deer.

Mule deer (*Odocoileus hemionus*) in western Montana are found in brushy areas, open to dense montane and subalpine coniferous forest, and aspen groves. They typically use open shrublands at low to mid elevations in the winter and move to higher elevation forests in summer (MFWP 2017a). The analysis area provides winter and general year-round range for mule deer.

Elk (*Cervus canadensis*) use a variety of habitat types, but most commonly are found in coniferous forests interspersed with open meadows, grasslands, burns, or logged areas. They prefer moist sites in summer (MFWP 2017a). The analysis area provides winter and general year-round range for elk.

Moose (*Alces alces*) are typically associated with mesic areas and water sources, such as mesic meadows, river valleys, swampy areas, and willow flats within coniferous forests (MFWP 2017a). The analysis area provides winter and general year-round range for moose.

Threatened, Endangered, and Sensitive Wildlife Species

Threatened and endangered species are evaluated using the species list acquired for the easement areas from U.S. Fish and Wildlife Service Information for Planning and Consultation (IPAC) web application. In addition, species on the DNRC Northwestern Land Office sensitive species list are also analyzed. Species occurrence information

was also requested for the project from the MNHP. Determination of species occurrence was based on habitat maps from MFWP and DNRC, occurrence data from MNHP, review of aerial photography and site photos, agency knowledge, and available literature. Threatened, endangered, and sensitive species are listed in Table 6, along with their habitat requirements and potential occurrence in the easement areas. DNRC has assessed habitat for specific species, and where acres of habitat are reported, they are derived from the DNRC GIS database. Species that do not occur in the easement areas would not be ***appreciably*** affected by the proposed action and therefore are not carried forward for detailed effects analysis. In addition, species are not carried forward for detailed analysis if ***no or*** negligible effects are expected from the proposed action (rationale provided in Table 6).

Table 6. Threatened, Endangered, and Sensitive Fish and Wildlife Species and Their Potential Occurrence in the Easement Areas

Species/Habitat	***Occurrence in Easement Areas***
Threatened and Endangered Species	
Canada lynx (*Lynx canadensis*) – Threatened Habitat: Subalpine conifer forests, including lodgepole pine, subalpine fir, Engelmann spruce, cedar-hemlock, and mixed conifer. Requires deep snow and high density of snowshoe hares or other prey species. Foraging is often focused in stands where past disturbance has resulted in early successional stages. Horizontal complexity and downed logs and other woody debris are also important for security cover and denning (MFWP 2017a; Ruediger and others 2000).	**May occur**. The analysis area overlaps 1,874 acres of suitable habitat, most of which (77%) is classified as winter foraging habitat (remainder is summer foraging and other suitable habitat). There are historical records of the species occurring within 1 mile of the easements (MNHP 2017). *Detailed analysis is provided in Section 3.4.2.*
Grizzly bear (*Ursus arctos horribilis*) – Threatened Habitat: Varies by season and individual. In Montana, most commonly used habitat includes mesic areas, such as seeps and riparian zones, meadows and mixed shrublands, timbered zones, mountainsides, snow chutes, and alpine slabrock (MFWP 2017a).	**Occurs.** Approximately 0.6 mile of existing trails in the proposed easements are within the grizzly bear Northern Continental Divide primary conservation area (Recovery Zone) (USFWS 2013). The remainder of the proposed trails are in non-recovery zone occupied habitat. Grizzly bears commonly use the area. Approximately 1,538 acres of hiding cover are present in the analysis area, and the remainder is other suitable grizzly bear habitat. ***Spring foraging habitat is also present, including riparian zones where skunk cabbage grows, and important early green food source for grizzly bears***. There are occurrence records within 1 mile of the easements (MNHP 2017). *Detailed analysis is provided in Section 3.4.2.*
North American wolverine (*Gulo gulo luscus*) – Proposed Threatened Habitat: In Montana, occurs in rugged areas of boreal coniferous forests where snow persists into late spring. Dispersing wolverines may range widely outside of primary habitat (MFWP 2017a).	**May Occur.** Based on a GIS habitat model (predicting areas of persistent spring snow cover) (Copeland 2007), there is no wolverine denning habitat in the proposed easement areas. Regular occurrence or use of the easement areas is not expected due to the lack of suitable habitat. There is an occurrence record 1 mile to the northeast in the higher elevations of the Whitefish Mountains, where more optimal habitat is located (MNHP 2017). Dispersing individuals may occasionally pass through the analysis area, but the proposed activities would not directly affect wolverines, or impede movement of dispersing wolverines through the valley. For these reasons, direct, indirect, and cumulative effects to North American wolverine would be negligible.

Species/Habitat	***Occurrence in Easement Areas***
Threatened and Endangered Species (Continued)	
Yellow-billed cuckoo (*Coccyzus americanus*) – Threatened Habitat: In western U.S., found in extensive tracts of lowland riparian forests with multi-layered canopy (such as cottonwood tree overstory and willow shrub understory) (MFWP 2017a; USFWS 2014).	**Does Not Occur**. This species occurs primarily east of the Continental Divide. There is no evidence of breeding in western Montana (MFWP 2017a). There are only eight total occurrence records from western Montana, and only three from the last 30 years (USFWS 2014). In addition, there are no large tracts of suitable deciduous riparian habitat in the proposed easement areas. There would be no effect to yellow-billed cuckoos since they do not occur in the analysis area.
Bull trout (*Salvelinus confluentus*) – Threatened Habitat: Clean, cold water into both streams. Diversity of habitat types with large wood structures for cover and resting. Channel substrate well graded with a mixture of sand, gravel, cobbles and boulders	**Occurs**. Headwaters of both streams generate cold, clean water and have runoff characteristics typical of snowmelt driven systems. These runoff events create the diversity of habitat types needed by these species with a good mixture of channel substrate. With a direct connection to Whitefish Lake, Swift Creek provides spawning habitat for adfluvial bull trout. *Detailed analysis is provided in Section 3.4.2.*
Sensitive Species	
Bald eagle (*Haliaeetus leucocephalus)* Habitat: Year-round resident in forested areas along or near rivers and lakes. Nests in large trees or snags. May use more upland areas in winter (MFWP 2017a).	**May Occur.** The proposed easements are within the home range of a bald eagle pair associated with Whitefish Lake. The DNRC database shows an active nest (successfully fledged young in 2017) is present on private property near Whitefish Lake. There are several other historical nests near this location, as well as in areas adjacent to the proposed trails and easement area (along Swift Creek and Smith Lake). Bald eagles typically respond to disturbance when it is visible from the nest site and when the activity is new and the pair is not habituated (Buehler 2000; Bald Eagle Working Group 2010). The existing and proposed trail corridors would be located at least 0.6 mile from the active nest near Whitefish Lake and would not be in direct line-of-sight. No trees or snags that contain bald eagle nests would be removed. Due to the distance from foraging habitat (Whitefish Lake), bald eagles are not expected to frequent the easement area and therefore flushing caused by encounters with trail users would be rare. In addition, the visual screening provided by the forest cover and topography would minimize any disturbance to eagles perched or flying through the trail corridors. For these reasons, negligible direct, indirect, and cumulative effects to bald eagles are expected.

Species/Habitat	***Occurrence in Easement Areas***
Sensitive Species (Continued)	
Black-backed woodpecker (*Picoides arcticus*) Habitat: Year-round resident in early successional or recently burned (within 5 years) conifer forest (mixed conifer, lodgepole pine, Douglas-fir, western larch, and spruce-fir) where wood-boring insects are present (MFWP 2017a).	**Not Likely To Occur.** There are no burned or beetle-infested stands present. There would be no effect to black-backed woodpeckers since they do not occur in the analysis area.
Coeur d'Alene salamander (*Plethodon idahoensis*) Habitat: Seeps and streamside talus, or talus within moist forested areas (MFWP 2017a).	**May Occur**. While potentially suitable streamside talus habitat may be present along Smith Creek, Coeur d'Alene salamanders have not been found east of Lake Koocanusa and are not likely to use the area (MNHP 2017). Proposed trail crossings across Smith Creek would observe all streamside best management practices to minimize sediment delivery and disturbance to the stream bank. No loss or permanent alterations to streamside talus habitat are expected. For these reasons, negligible direct, indirect, and cumulative effects to Coeur d'Alene salamanders are expected.
Columbia sharp-tailed grouse (*Tympanuchus phasianellus columbianus*) Habitat: Grasslands interspersed with shrubs and brush-filled coulees (MFWP 2017a).	**Does Not Occur**. Extirpated from western Montana (MFWP 2017a). There is no suitable grassland habitat present in the proposed easements. There would be no effect to Columbia sharp-tailed grouse since they do not occur in the analysis area.
Common loon (*Gavia immer*) Habitat: Freshwater lakes greater than 13 acres. Small islands preferred for nesting but herbaceous shorelines may also be used. Lakes smaller than 200 acres typically support only one breeding pair (MFWP 2017a).	**Occurs**. Some of the highest densities of loons in Montana occur throughout the Stillwater River drainage north of Kalispell (Montana Loon Society 2017). Breeds in the analysis area, including on Boyle Lake (40 acres) and potentially Smith Lake (16 acres) (Hammond 2009). MNHP has records of loons in the area (MNHP 2017). DNRC annually monitors breeding loons on Boyle Lake. *Detailed analysis provided in Section 3.4.2.*

Species/Habitat	***Occurrence in Easement Areas***
Sensitive Species (Continued)	
Fisher (*Pekania pennanti*) Habitat: Dense coniferous forest or mixed forests and early successional forests with dense overhead cover and complex structure (diversity of trees, downed woody debris, and dense understory). Requires large tracts of forest (MFWP 2017a)	**May Occur.** There are approximately 1,548 acres of suitable fisher habitat in the proposed easement areas, 293 acres of which is classified as preferred habitat. There is one historical occurrence record in or near the Public Recreation Use Easement area (MNHP 2017). Recent winter carnivore surveys conducted by DNRC and the USFS have not detected any fishers within the analysis area or CEAA (unpublished data). The proposed trail corridor would impact up to 13 acres of potential fisher habitat. Changes to canopy cover and structure of forest stands would be minimal because removal of trees and downed logs or other woody debris would be avoided whenever possible. Therefore, because fishers are not expected to occur in the analysis area, and no changes in habitat function would occur, the proposed action would have negligible direct, indirect, and cumulative effects to fishers.
Flammulated owl (*Psiloscops flammeolus*) Habitat: Mature and old-growth ponderosa pine and Douglas fir forest on warm, dry slopes. Shows a strong preference for open ponderosa pine with some brush or saplings in the understory. Avoids dense young stands and mesic site. Nests in cavities constructed by woodpeckers (MFWP 2017a).	**May Occur.** There are approximately 223 acres of suitable flammulated owl habitat in the analysis area. Construction of the proposed trail corridor would affect up to 4.8 acres of flammulated owl habitat. Removal of key habitat requirements (e.g., downed logs and woody debris, large trees and snags, and canopy cover) would be minimal; therefore, effects to nest sites, roost sites, foraging habitat, and cover would be negligible. In addition, this species is relatively tolerant of human disturbance, such as campgrounds, and rarely abandons nest cavities (Hamman and others 1999). For these reasons, there would be negligible direct, indirect, and cumulative effects to flammulated owls.
Gray wolf (*Canis lupus*) Habitat: A generalist species, uses a variety of habitat types wherever ungulate prey are present. Packs that have been established more recently appear fairly tolerant of human presence and disturbance (MFWP 2017a).	**May Occur.** Although MFWP no longer tracks individual wolf packs, its historic database indicates wolf packs have historically occurred within the proposed easement areas and likely would continue to do so. *Detailed analysis is provided in Section 3.4.2.*

Species/Habitat	***Occurrence in Easement Areas***
Sensitive Species (Continued)	
Harlequin duck (*Histrionicus histrionicus*) Habitat: In breeding season, found in and along fast-moving, clear mountain streams with overhanging vegetation. Stream widths can range from 10 to 115 feet (MFWP 2017a).	**May Occur.** Swift Creek may be suitable habitat and harlequin ducks have been observed less than 1 mile upstream of the easement area in the past (MNHP 2017). *Detailed analysis is provided in Section 3.4.2.*
Northern bog lemming (*Synaptomys borealis*) Habitat: Wet meadows, fens, bogs within spruce-fir, birch, willow, or sedge communities. Primarily found where sphagnum or other moss mats are present (MFWP 2017a)	**May Occur**. There is potential bog habitat on a portion of Lazy Creek upstream of the proposed trail crossing. Little is known about bog lemming biology; therefore, given the proximity of potential bog habitat, it is possible that bog lemmings also use wetlands within the proposed trail corridor. The proposed trail crossing across Lazy Creek and boardwalks through wetlands would observe all best management practices to minimize sediment delivery and disturbance to the stream bank and wetlands. In addition, the use of a boardwalk trail through wetlands would minimize permanent impacts to wetlands. For these reasons, negligible direct, indirect, and cumulative effects to northern bog lemming are expected.
Peregrine falcon (*Falco peregrinus*) Habitat: Nests on cliffs, usually near a water body (MFWP 2017a).	**Does Not Occur**. There is no cliff habitat present in the proposed easements. There would be no effects to peregrine falcons since they do not occur in the analysis area.

Species/Habitat	***Occurrence in Easement Areas***
Sensitive Species (Continued)	
Pileated woodpecker (*Dryocopus pileatus*) Habitat: Prefers late successional coniferous or deciduous forest. May use younger forests where scattered, large dead trees are present. Large diameter trees, dead trees and downed wood are important foraging and nesting requirements. Creates tree cavities for nesting (MFWP 2017a).	**May Occur.** MNHP has records of this species in or adjacent to the proposed easements (MNHP 2017). There are approximately 853 acres of suitable habitat present in the analysis area. Construction of the trail corridor would impact up to 6.7 acres of pileated woodpecker habitat. Effects to habitat structure and function would be minimal because removal of large amounts of downed logs and woody debris, large trees and snags, and canopy cover are not expected. This species is fairly tolerant of human presence even near nest sites (Bull and Jackson 2011). Recreational disturbance is not likely to have a significant effect on these woodpeckers because of the sporadic nature of the activity and because recreational activities are not likely to be focused around a nest tree (Hamman and others 1999). For these reasons, habitat loss/alteration, and disturbance effects would be minimal and localized; therefore direct, indirect, and cumulative effects to pileated woodpeckers would be negligible.
Townsend's big-eared bat (*Corynorhinus townsendii*) Habitat: Requires caves and abandoned mines for maternity roosts and hibernacula. Also reported to use buildings, bridges, rock crevices, and hollow trees as roost sites. Forages in various forest, shrub, and riparian habitats (MFWP 2017a).	**Does Not Occur.** No caves or mines are present. The old Vista Tunnel (closed by the railroad) near Boyle Lake is a potential roosting site. However, Townsend's big-eared bat is sensitive to disturbance, and this rail line receives heavy train traffic, likely rendering the structure unsuitable as a roost site (C. Forristal, DNRC, personal communication). There would be no effects to Townsend's big-eared bats since they do not occur in the analysis area.
Westslope cutthroat trout (*Oncorhynchus clarkii lewisi*) Habitat: Clean, cold water into both streams. Diversity of habitat types with large wood structures for cover and resting. Channel substrate well graded with a mixture of sand, gravel, cobbles and boulders.	**Occurs**. Headwaters of both streams generate cold, clean water and have runoff characteristics typical of snowmelt driven systems. These runoff events create the diversity of habitat types needed by these species with a good mixture of channel substrate. With a direct connection to Whitefish Lake, Swift Creek and Lazy Creek provide spawning habitat for a majority of westslope cutthroat trout adults migrating out of Whitefish Lake. *Detailed analysis is provided in Section 3.4.2.*

3.4.2 Environmental Effects

3.4.2.1 No Action – Direct and Indirect Effects

General Wildlife

Recreational use would continue to cause localized disturbance and displacement effects on wildlife from use of 2.8 miles of existing trails and associated facilities, including the to-be-built 1.7 acres of the disc golf course. Security habitat between Swift Creek and Boyle Lake would be maintained. No trails would be constructed through riparian habitat along Lazy Creek and Swift Creek. There would be no change in level of human access. There would be no increase in disturbance/displacement. Therefore, no direct or indirect effects would result from the No Action alternative. Recreational use of existing trails and facilities is expected to increase above current levels (18 users/day in winter, 65 in summer) as the town of Whitefish and tourism grow.

Fish

Dispersed or off-trail uses (such as hunting and fishing) would continue but, large, undisturbed sections of fish habitat would persist. Channel type, channel planform, channel stability, and riparian re-vegetation would continue to change as a result of natural channel adjustments caused by flows, debris, erosion, or deposition. Negligible effects to fish habitat would result from the No Action alternative. DNRC would continue to manage these habitat blocks under state rules governing forest management.

Big Game

Under the No Action alternative, no habitat modifications would occur, and no additional displacement or other disturbance would occur beyond that occurring on existing trails. There would be no change in the level of human access. DNRC would continue to manage these habitat blocks under state rules governing forest management. Relative to the proposed action, there would be a larger area of undisturbed winter and general range available for big game to use. Dispersed recreation and hunting activities in big game habitat would continue. Therefore, no direct or indirect effects would result from the No Action alternative.

Threatened, Endangered, and Sensitive Species

Canada Lynx - Threatened

Under the No Action alternative, existing Canada lynx habitat and connectivity would not be affected and lynx using the area for winter foraging would not experience increases in disturbance from human recreation. Disturbance occurring from recreational use of existing Swift Creek/Smith Lake trails and the disc golf course would continue. Dispersed recreation would continue. DNRC would continue to manage the habitat under state rules governing forest management. There would be no effect on Canada lynx from the No Action alternative.

Grizzly Bear - Threatened

Under the No Action alternative, existing grizzly bear habitat (including hiding cover and important foraging areas) and connectivity would not be affected. Grizzly bears would not experience increased disturbance and displacement from human recreation in the proposed new trail corridors. Risks to human safety would remain at current levels on the existing 2.8 miles of Swift Creek/Smith Lake trails and around the disc golf course. There would be no increase in the number of sites with attractants, such as food waste. Dispersed recreation would continue in the proposed easement areas. DNRC would continue to manage the habitat under state rules governing forest management. Since there would be no change in levels of disturbance and risk of human-bear conflict, there would be no direct or indirect effects to grizzly bears from the No Action alternative.

Bull Trout - Threatened

Dispersed or off-trail uses (such as hunting and fishing) would continue but, large, undisturbed sections of fish habitat would persist. Channel type, channel planform, channel stability, and riparian vegetation would continue to change as a result of natural channel adjustments caused by flows, debris, erosion, or deposition. Sediment impacts on the stream habitat features would remain at the current low levels. Bull trout would continuously adapt to these natural stream adjustments. DNRC would continue to manage these habitat blocks under state rules governing forest management.

Common Loon - Sensitive

Under the No Action alternative, no additional trails would be constructed around Smith Lake and no trails would be constructed near Boyle Lake. Therefore, there would be no increase in disturbance of nesting loons along these lake shorelines. Recreation on the existing trails around Smith Lake would continue, and infrequent dispersed recreation would continue at Boyle Lake. Since there would be no change in disturbance levels, there would be no direct and indirect effects to common loons as a result of the No Action alternative.

Gray Wolf - Sensitive

Under the No Action alternative, no new trails would be constructed and recreational use of existing trails would continue. Dispersed recreation would continue in the proposed easement areas. DNRC would continue to manage these habitat blocks under state rules governing forest management. There would be no increase in current levels of disturbance/displacement on existing trails and there would be no change to prey (big game) habitat. Therefore, there would be no direct or indirect effects to gray wolves from the No Action alternative.

Harlequin Duck - Sensitive

Under the No Action alternative, no trails would be constructed across streams and there would be no disturbance from trail construction or use. Dispersed recreation would continue along streams. Since there would be no disturbance to harlequin ducks or

impacts to their habitat, the No Action alternative would have no direct or indirect effects to harlequin ducks.

3.4.2.2 Proposed Action – Direct and Indirect Effects

General Wildlife

> *Issue:* The proposed trail construction, maintenance, and use of the trail by recreationists and their pets could increase disturbance to wildlife in the vicinity of the trail.

In terms of coarse filter resources, there are 3.2 acres of old growth and 14.5 acres of mature forest habitat that would experience surface disturbance from the proposed trail corridor. However, the proposed action would not alter overall forest stand structure, composition, or old growth characteristics to a measurable degree. While trail construction would create small openings in the forest canopy, it would not remove a large number of trees, snags, or coarse woody debris. In addition, relative to the availability of old growth and mature forest (479 acres and 1,430 acres, respectively) in the analysis area, a small area (17.8 acres or 0.8 percent) would be affected by surface disturbance along the proposed trail corridor. For these reasons, the proposed action would have negligible effect on wildlife habitat related to forest structure, successional stage, species composition, availability of old growth, or connectivity of mature forest.

Approximately 14.3 acres (Close the Loop Trail: 11.3 acres; bridges, signage, toilets, parking lots and pavilion: 3 acres) of habitat in the easement areas would be permanently affected by new surface disturbance under the proposed action alternative. Construction of 8.5 miles of trails would result in minor changes in habitat characteristics in a localized area as vegetation is cleared along the 16-foot trail corridor, primarily impacting the understory. The proposed trail would involve five stream crossings, and cross up to 0.25 acre (0.2 percent) of riparian and wetland habitat (see Section 3.3.1 for more detail) out of 140 acres mapped in the analysis area. These acres are estimated from Montana Natural Heritage Program/National Wetlands Inventory map data. Detailed field mapping of wetlands would be completed during final trail design phases and permitting. Impacts to important habitats that attract high numbers of wildlife, such as streams and wetlands, would be minimized through the use of bridges and boardwalks and BMPs implemented during construction. Loss of vegetation in 12.3 acres (0.5 %) of the analysis area would in general have a negligible effect on wildlife habitat. Construction and use of trails in the easement areas would not impede local wildlife movement or broad-scale wildlife movements (dispersal). Resulting effects to wildlife due to direct habitat loss or alteration would therefore be negligible. However, disturbance from trail users may result in the effective loss of habitat if wildlife are displaced from areas of otherwise suitable habitat. Disturbance effects are analyzed further below.

The area around the north end of Whitefish Lake currently experiences recreational use from fishing, ***biking, disc golf***, hunting, hiking, berry picking, and wildlife viewing

(MSWAP 2015). Constructing additional trails would disperse human recreational use over a larger area and would provide regular human access to wildlife habitat that would otherwise experience relatively low levels of human intrusion, particularly in the area between Lazy Creek and Swift Creek, which currently lacks trails and open roads. ***In addition, the proposed trails would involve crossings of roads that are currently closed to public motorized use. Therefore, construction of this trail segment would provide new access and potentially result in an increase in nonmotorized use of four miles of previously inaccessible roads in the northwest and southern portions of the analysis area.***

Trail construction and trail use post-construction would disturb wildlife in the area. Typical wildlife responses to human presence and noise range from heightened alertness to fleeing the area. These behaviors increase an animal's energy expenditure and stress levels and decrease the amount of time spent foraging or engaging in breeding-related activities. Individuals that actively avoid areas near trails are effectively experiencing a loss of that area for their use in daily activities. Depending on the severity and frequency of the disturbance, reductions in survival and productivity and overall abundance are possible over the long-term (Reed and Merlender 2008; Garber and Burger 1995). In some species, disturbance effects may be temporary as the population in the area habituates to human presence.

Wildlife disturbance from noise and visual detections of trail users can extend beyond the trail corridor. The degree of response to this disturbance is expected to vary by species and by the amount of screening provided by vegetation. The impact would also be greater in open habitat types compared with forested habitat types because of the lack of visual and noise screening provided by vegetation. In forested habitat, a 160-foot flushing distance has been reported for mule deer in response to trail use by hikers (Miller and others 2001). Lenth and others (2008) report mule deer avoided a 330-foot (100-meter) distance from trails in forest habitat. Taylor and Knight (2003) report a 330-foot flushing distance for mule deer in open grassland habitat. Birds and small mammals appear to have a smaller response distance (30 feet for American robins) (Miller and others 2001) and 80-160 feet in small mammals, such as squirrels and rabbits (Lenth and others 2008)). Hikers with dogs appear to have a greater disturbance effect than hikers alone (Miller and others 2001; Banks and Bryant 2007; Parsons and others 2016). In addition, off-leash dogs have a greater risk of killing, harassing, or chasing wildlife, and can extend the zone of influence even farther from the trail corridor. Lenth and others (2008) and Parsons and other (2016) reported that most dogs stayed within 16 feet of the trail but were detected up to 280 feet from trails. Based on this literature, a reasonable approximation of the disturbance zone for the proposed action is the area within 330 feet (100 meters) of a trail. Applying that to this project, wildlife in a 609-acre area surrounding proposed trails (26 percent of the analysis area) could be affected by disturbance (accounting for overlap). ***The additional access to four miles of closed public roads and associated nonmotorized recreation use***

could cause use and/or displacement on an additional 204 acres. This disturbance would be additive to a 245-acre area surrounding existing trails (10 percent of the analysis area) already experiencing disturbance ~~by~~ ***from*** existing trails. The total area of disturbance/displacement would be ~~854~~ ***1,058*** acres, or ~~36~~ ***45*** percent of the analysis area.

The disturbance effect may be greater when wildlife are displaced from less common but important habitat types, such as riparian and wetland areas. Disturbance zones around existing trails encompass 5.6 acres (4 percent) of wetland and riparian habitat available in the analysis area. Disturbance zones around proposed trails would encompass an additional 31.4 acres, resulting in total disturbance/displacement area of 37 acres, or 26 percent of the 140 acres of mapped riparian and wetland habitat available in the analysis area. The dense forest and shrub vegetation through the riparian corridors likely reduces the disturbance effect at these trail crossings through visual screening and attenuation of noise. Waterfowl nesting along shorelines and riparian corridors are sensitive to disturbance and recreational use on and off-trail over time in these areas may result in localized declines in nest success and discourage future nesting in otherwise suitable habitat.

Wildlife are often more sensitive to disturbance during specific seasons, such as winter (Larson and others 2016) and especially the breeding season. Based on use of the existing Swift Creek trails, there are relatively few users in winter months (average of 18 per day compared to 65 per day in summer). Some cross-country skiing occurs but there are no formal groomed ski routes. Winter use is mostly from snowmobilers, which would be focused on ~~the~~ 1.2 miles of ***existing*** groomed route. Closures of areas and/or signage to protect breeding waterfowl in ~~summer~~ ***spring or early summer*** months may be beneficial in reducing disturbance (see section below on common loon for more detail). There may also be temporal difference in trail use by humans versus wildlife. Many species are most active at sunrise and sunset or during nocturnal hours, times of day when human use would be lowest. In addition, some wildlife may shift the timing of their daily behaviors to avoid the area during times when humans are using the trails (Parsons and others 2016; Reilly and others 2017). These behaviors reduce the likelihood of disturbing species that are active in crepuscular and nocturnal hours.

The level of impact to wildlife also depends on the behavior of trail users. Trail users and their pets could use adjacent off-trail areas, particularly around ***existing roads***, stream crossings and lakeshores. Birds and mule deer appear to be more sensitive to off-trail use and flush at closer range and move farther distances relative to on-trail use (Taylor and Knight 2003; Miller and others 2010). Off-trail use reduces the predictability of disturbance. Bikers riding at high speeds may surprise and startle wildlife that are on or near the trail. Many species flee greater distances in response to slow-moving hikers than users that are moving more quickly (such as bikers and motorized vehicles) (Papouchis and others 2001; Stankowich 2008; Larson and others 2016). Trail users and pavilion users may leave behind trash and food, which can attract some wildlife

species if perceived as a food source. Signage explaining proper trail behavior and encouraging users to either pack out or properly dispose of trash where bear-proof cans are provided would help reduce these impacts.

The presence of dogs can increase the level of disturbance to wildlife (Miller and others 2001; Banks and Bryant 2007; Parsons and others 2016). Even with ~~a leash regulation~~ ***mitigations*** in place, some level of ***leash*** non-compliance would be expected. For example, Kellner and others (2017) report 16-22% of dog owners were noncompliant on trails in the Boulder, Colorado area. Overall, disturbance effects could result in long-term changes in abundance and distribution of wildlife within 330 feet of the proposed and existing trails (854 acres, or 36 percent of the analysis area), and therefore the Proposed Action is expected to have moderate, adverse direct and indirect effects on wildlife in general.

Mitigations:

- ***Install*** signage describing sensitive wildlife, ***discouraging off-trail use***, managing dogs, ~~and~~ proper trail behavior, ***leash requirement for dogs on the trail between Swift Creek and Lazy Creek***, and ~~potential~~ seasonal ***gated*** closure of ***trails through or near*** sensitive habitat areas ***in the spring and early summer months.***
- ***The City of Whitefish work with DNRC and other agencies on trail design and management of the trail corridors.***

Fish

Impacts to the fisheries resources in Swift and Lazy Creeks created by installation of the trail and bridges would be limited to the habitat or channel modifications caused by the bridge piers. Natural channel adjustments caused by flows, debris, erosion, or deposition are part of the natural channel regime that fish must continuously adapt to in natural stream systems.

Erosion around the base of bridge piers within the 100-year floodplain would potentially increase sediment delivered to the active stream channel. Both Swift Creek and Lazy Creek are located in alluvial valleys with stream banks typically composed of a mixture of sands, gravels, cobbles and boulders. Erosion of the floodplain adjacent to the bridge pier base would likely mobilize materials that are very similar to the existing channel substrate. The risk of floodplain erosion around bridge piers located in the 100-year floodplain but outside the bank full flow channel and then sedimentation of downstream habitat features would be very low.

At higher recurrence interval flood flows, channel width expands laterally to accommodate the additional water in the stream channel. With the abutments located outside the 100-year floodplain, only the piers located within the floodplain would have floodwaters flowing around their bases. Location of the piers and how often water would flow around the base would determine the extent of the impact of the piers on the

fisheries resources. As water flows around the piers, scour pools can form along the sides and downstream of the piers. Volume of the scour holes are controlled by the flood flow and duration. During high flows, adult and juvenile fish typically seek out channel margins to avoid the high-energy, high-velocity flows in the main parts of the channel. As the high flows recede, fish that moved laterally out of the channel begin to move back into the main section of the channel. If they encounter the scour pool around a bridge pier, the fish may remain in the pool, become stranded in the pool, and eventually die as a result of predation or lack of water. As discussed in Section 3.3.2.2 Stream Channel Characteristics at Proposed Stream Crossings, the presence of dense riparian vegetation on the 100-year floodplain is a critical component to the reduction of water velocities around the base of the piers and scour around the base of the piers.

~~Facilitation of the~~ ***Bridge*** construction may necessitate crossing ~~of~~ the active Swift Creek stream channel by the construction equipment ***which would potentially increase turbidity in the stream.***

~~As described in Section 3.3.2.2, stream crossing locations for construction equipment would be carefully chosen to minimize impacts to the stream banks, floodplains and active stream channel. As a result of these infrequent channel crossings,~~ ***Short term*** impacts to the channel habitat features would have a low to moderate risk of occurrence ***when mitigation measures are implemented.*** ~~These impacts would include increased turbidity in the stream due to equipment crossing the stream. Turbidity BMPs would be implemented to minimize construction turbidity in the stream channel along with construction site sediment and erosion control BMPs to control all sediment from leaving the work areas. All impacts would be limited to the construction period and upon completion, channel habitat features would naturally return to pre-construction conditions.~~ ***Once construction was completed, channel habitat features would naturally return to pre-construction conditions and with the implementation of mitigation measures, the proposed action would have low adverse direct and indirect effects to fish.***

Mitigations: See mitigations in Section 3.3.2.2 – Stream Channel Characteristics at Proposed Stream Crossings.

- ***Construct bridges in the fall, during historically low stream flow.***
- ***During construction, implement construction site sediment and erosion control BMPs.***
- ***Install signage discouraging off-trail use.***
- ***The City of Whitefish work with DNRC and other agencies on trail design and management of the trail corridors.***

Big Game

Issue: The proposed trail construction, maintenance, and use could disturb or displace big game species, reducing the quality of winter range habitat. The

proposed trail and associated bridges could increase hunter access and decrease security habitat, resulting in increased mortality risk to big game species.

Up to 14.3 acres (Close the Loop Trail: 11.3 acres, and bridges, signage, toilets, parking lots and pavilion: 3 acres) of big game habitat would be altered under the proposed action. These alterations would involve removal of some understory species within the trail tread. Given the small number of acres affected and the availability of habitat in the surrounding area (2,335 acres within the analysis area), and the lack of structural changes to the forest, the effect from direct habitat loss/alteration would be negligible. However, new trails would be constructed in areas that are currently relatively inaccessible to people due to the lack of roads and trails (such as the area between Swift Creek and Boyle Lake). ***This would include new nonmotorized access to four miles of previously inaccessible public road due to new trail crossings of roads in the northwest and southern portions of the analysis area***. Therefore, the proposed action would reduce the amount of security habitat available in this area. A localized increase in hunting mortality could occur due to the increase in human access during the big game hunting season.

As discussed above in the general wildlife section, construction of trails and recreational use of trails would reduce the amount of area big game have to roam undisturbed, potentially affecting an area within 330 feet (100 meters) of trails (Lenth et al. 2008; Taylor and Knight 2003). Disturbance along existing trails is currently affecting 245 acres. An additional 609 acres would be affected by new disturbance from the proposed trails ***and an additional 204 acres could be disturbed by potential nonmotorized recreational use of roads that would become accessible from new trail crossings. This would result*** in a total disturbance footprint of ~~854~~ ***1,058*** acres. Highest flight rates are in open habitats and when dogs are present (Miller and others 2001; Stankowich 2008). Dog presence on trails is also correlated with increased avoidance of the area within 330 feet of a trail (Lenth et al. 2008; Taylor and Knight 2003). Some big game species (e.g. deer) near high human use areas often shift their activity to nocturnal hours and become more secretive, while others (e.g. elk) may avoid areas near high-use trails all together (Reilly and others 2017, Rogala and others 2011). Off-trail activities tend to have a greater impact than on-trail recreation because of the lack of predictability in the disturbance area (Miller and others 2001). Some ungulates in areas with regular human use show reduced flight response, indicating habituation or temporal changes in activity are possible depending on the recreational activity and ungulate species (Snetsinger and White 2009).

Disturbance effects are likely greater in winter, when ungulates are most stressed by the reduced availability of forage and the high amount of energy expended for temperature regulation and movement through snow (Canfield and others 1999). Big game concentrate into smaller areas in winter months. Therefore, the area available for them to flee when disturbed is reduced. Several studies have demonstrated that big game exhibit flight responses to cross-country skiing and snowmobiling, and moose and

elk avoid cross-country ski trails that receive heavy use (Ferguson and Keith 1982; Larson and others 2016; Reimers et al. 2003). Based on recreational use data from existing trails in the area, human use of the trails would be lowest (but still present) during winter. However, snowmobiling and skiing compacts snow and provides easier access for predators, including wolves, as snow depths increase.

Disturbance, loss of security habitat, and increased hunter access could result in localized reductions in the abundance and distribution of big game on ~~609~~ ***813*** acres (~~26~~ ***35***% of the analysis area) and would be additive to 245 acres (10% of the analysis area) already affected by recreation on existing trails.~~Therefore~~ ***Based on the disturbance data and with the implementation of the mitigation measures***, the proposed action would have moderate adverse direct and indirect effects to big game.

Mitigations:

- ***Install signage discouraging off-trail use, managing dogs, proper trail behavior, and leash requirement for dogs on the trail between Swift Creek and Lazy Creek.***
- ***The City of Whitefish work with DNRC and other agencies on trail design and management of the trail corridors.***

Threatened, Endangered, and Sensitive Species

Canada Lynx - Threatened

Issue: The proposed trail construction, maintenance, and use of the trail by recreationists and their pets could increase disturbance to Canada lynx and displace them from suitable habitat.

There are 1,874 acres of Canada lynx suitable habitat in the analysis area. The majority (77%) of the existing and proposed trail corridors are located within Canada lynx habitat (39 acres). New trail construction would directly affect a total of 13 acres of suitable habitat. Direct effects to habitat would be minimal because the proposed action would not alter the structure or composition of the forest stands and removal of important microsite features, such as logs and other downed woody debris, would be avoided whenever possible. Based on lynx response to roads, hiking trails are unlikely to directly impede lynx movement (at least when humans are not present). For example, lynx do not avoid forest roads when establishing home ranges, even those used by up to 130 snowmobilers per day (Ruediger and others 2000; Squires and others 2010). Squires and others (2010) found that lynx used areas of their winter home range with heavy forest cover and understory, which were not the same areas used by snowmobilers. Furthermore, a recent study using high-resolution GPS tracking found that if two-lane highways were present in their home range, lynx crossed them frequently, at an average rate of 0.5 times per day (Baigas and others 2017). Although direct habitat changes due to the trail construction is unlikely to affect lynx, humans and dogs using the trails have potential to disturb and displace lynx from suitable habitat.

The remainder of this analysis is focused on disturbance and displacement effects from recreational trail use.

Little is known about Canada lynx disturbance tolerance distances, but Eurasian lynx (*Lynx lynx*) responded to approaching people at a median distance of 164 feet (50 meters) (Sunde and others 1998). The response distance was highly correlated with an increase in horizontal visibility (i.e., hiding cover) (Sunde and others 1998). Based on this information and the distances dogs may be found off trail (see details under General Wildlife section), a 330-foot (100 meter) buffer around the trails was considered the potential Canada lynx disturbance zone. Within this zone, 227 acres of suitable lynx habitat is currently ~~disturbed~~ ***experiencing disturbance*** by recreational use of existing trails (12 percent of the suitable habitat in the analysis area). There is potential for lynx to be displaced from an additional 421 acres (23 percent of the suitable habitat in the analysis area) of suitable habitat available during recreational use of the proposed new trails. ***In addition, another 204 acres of lynx habitat could be disturbed by nonmotorized recreational use of public roads that would become accessible from new trail crossings***. Total acres of lynx habitat affected would be ~~648~~ ***852*** acres, or ~~35~~ ***45*** percent of suitable habitat available in the analysis area. Disturbance/ displacement effects would be long-term (as long as the trails are being used).

In general, Canada lynx appear tolerant of some level of human presence (including ski resorts, rural residential areas, and moderate levels of snowmobiling) if sufficient security cover is present (Mowat and others 2009; Ruediger and others 2000; Squires and others 2010). The proposed trails would increase access to habitat between Swift Creek and Boyle Lake that currently experiences little human intrusion due to the lack of roads and trails, which would reduce the availability of refuge/security habitat. Little is known about Canada lynx response to non-motorized recreational trail use (Ruediger and others 2000). Repetitive, daily off-trail traveling by a small number of researchers did not affect lynx movement or home range use (Mowat and others 2009). However, the proposed action would result in an estimated 18 to 65 trail users per day in winter and summer, respectively.

Given the increased human access to security habitat, the expected number of trail users, and the potential for off-leash dogs, there is potential for recreational use to displace a lynx from the disturbance zone. Some factors may lessen this effect. For example, human use of the existing and proposed trails would be lowest (but still present) in winter, which is when lynx are most likely to occur within the analysis area based on habitat conditions. In addition, although Canada lynx may be active day or night, they show flexibility in changing their daily activity patterns in response to environmental conditions, for example crossing roads primarily during nocturnal hours (Kolbe and Squires 2007; Baigas and others 2017). Therefore, it is possible lynx with a home range encompassing the trail corridors would shift use of the disturbance zone to times of day when human presence would be minimal. This would reduce the overall disturbance effects.

Although recreational use is generally compatible with maintaining lynx populations, disturbance at a den site may lead to abandonment and affect kitten survival (Claar and others 1999; Ruediger and others 2000). In the northern Rocky Mountains and Canadian Rockies, denning occurs from May through August (Squires and others 2008; Apps 2000). Canada lynx den sites in western Montana are typically located in high elevation, mature spruce-fir forests (average elevation is 5,540 feet) (Squires and others 2008). Lynx avoid denning in low elevation, dry forests of western larch/Douglas fir, which is what comprises most of the easement area (Squires and others 2008). It is unlikely that lynx would select a den site near heavily used trails. The primary concern with potential den sites in the analysis area would be from off-leash dogs. In the unlikely event that a den site is detected near the trails, mitigations would be enacted to minimize disturbance of the den. In the northern Rocky Mountains and Canadian Rockies, denning occurs from May through August (Squires and others 2008; Apps 2000).

Canada lynx are wide-ranging and use large home ranges, which should be considered when evaluating potential effects from localized disturbance. Squires and Laurion (2000) report female lynx in Montana had an average home range size of 90 square kilometers (22,240 acres) and males had an average home range size of 220 square kilometers (54,363 acres). The 330-foot (100 meter) disturbance zone around the proposed and existing trails ***and newly accessible roads*** encompasses ~~854~~ ***1,058*** acres and the area of potential disturbance could affect ***five*** ~~four~~ percent and two percent of an average female and male lynx home range, respectively. In addition, lynx are solitary predators that occur in low densities, therefore the number of lynx potentially affected in the disturbance zone would be low.

Based on this analysis, the proposed action could result in changes in distribution of a small number of lynx, and the effect would be localized to the disturbance zone around the trail corridor. Although ~~35~~ ***56*** percent of suitable lynx habitat in the analysis area could be disturbed, the total area affected is small relative to a lynx home range.

Given the analysis above ***and with the implementation of the mitigation measures***, low, adverse direct and indirect adverse effects to Canada lynx are expected.

Mitigations:

- If a lynx den site is discovered near the trail, ***the City of Whitefish work with DNRC and other agencies on appropriate management of the area to minimize den disturbance***.

Grizzly Bear

Issue: The proposed trail construction, maintenance, and use could reduce visual screening and increase human access, which could adversely affect bears by displacing them from important habitats. Use of the trail, particularly by mountain bikers, could increase the risk of bear/human conflicts and human-caused bear mortality.

The analysis area is on the western edge of the grizzly bear recovery area for the Northern Continental Divide Ecosystem. Approximately 147 acres of the analysis area are within the grizzly bear recovery zone. The remainder of the analysis area (2,200 acres) is within non-recovery occupied habitat. Non-recovery occupied habitat is those areas that are outside the designated recovery zone but where grizzly bears are known to occur. Within the analysis area, approximately 0.6 mile of existing trails in the Swift Creek area are in the grizzly bear recovery zone. All other existing trails (2.2 miles), roads to be converted to trails (1.2 miles) and proposed new trails (8.5 miles) are in the non-recovery occupied area.

Within the analysis area, there are 1,538 acres of grizzly bear hiding cover available and 80 acres of riparian habitat (important for spring foraging). ***Spring foraging habitat is also present, including riparian zones where skunk cabbage grows, and important early green food source for grizzly bears***. New trail and bridge construction would directly affect 14.5 acres of hiding cover and 0.04 acre of riparian habitat, which is a total of one percent of grizzly bear habitat available in the analysis area. Construction of the proposed 16-foot wide trail corridors would result in negligible reductions in visual screening since most adjacent areas have a dense understory (including riparian areas) and/or many mature trees with low hanging branches. Removal of trees, snags, and downed woody debris would be minimized wherever possible. Therefore, forest structure would not be changed to a meaningful degree. Removal of one percent of the understory vegetation in the analysis area would have negligible direct effects to habitat for this wide-ranging species.

Human recreational use of the proposed and existing trails, could result in temporal and spatial displacement of grizzly bears (Gunther 1989; Coleman and others 2013; Fortin and others 2016). Grizzly bears have been shown to flee when people are within 330 feet (100 meters) or less (Fortin and others 2016). Therefore, a 330-foot buffer surrounding the proposed trails is considered the potential grizzly bear disturbance zone for this project. The proposed action has potential to cause displacement/disturbance of bears from a total of 436 acres of hiding cover, which would be additive to 208 acres around existing trails, totaling 644 acres in the disturbance zone. ***New non-motorized access to previously inaccessible roads in the northwest portion of the analysis area could disturb an additional 204 acres***. Disturbance may affect 9.2 acres of riparian habitat (3.8 acres along existing trails, 5.4 acres along proposed trails). Based on these numbers, there is potential for grizzly bears to be displaced from a total of ~~42~~ ***51*** percent of the hiding cover and 32 percent of the riparian habitat in the analysis area. An additional ~~210~~ ***278*** acres of suitable grizzly bear habitat that does not currently contain hiding cover would be affected by disturbance from new and existing trails ***and new non-motorized access to previously closed roads***.

When bears expend energy fleeing or otherwise avoiding areas used by humans for angling, hiking, or other non-motorized recreation, there can be an associated increase in energetic costs and decline in nutritional intake (Fortin and others 2016). Regulating

recreation to occur predictably over time and in defined areas, and avoiding recreational uses in important foraging habitat can reduce these effects (Fortin and others 2016). Grizzly populations with low levels of human intrusion tend to be most active during crepuscular and diurnal hours (Munro and others 2006). Where levels of human activity are high, grizzly bears tend to be more active in crepuscular and nocturnal hours (Coltrane and Sinnott 2015). Therefore, temporal shifting in foraging activity may occur to avoid humans, which could reduce the effects of disturbance/displacement.

The greatest risk to grizzly bears is human-caused mortality, including legal hunting (currently not allowed in Montana), management removals (as a result of negative interactions with people or residences due to food habituation), self-defense killing during a bear attack, or poaching (McLellan and others 1999). The proposed action would increase the risk of negative bear encounters because additional trails would be constructed through occupied grizzly bear habitat, although not within the recovery zone. Increased human access is associated with increased risk of bear mortality (Nielson and others 2004). There would also be an increased risk to human safety from bear encounters under the proposed action alternative (see Section 3.7). If human-grizzly bear conflict is not managed, there are negative consequences to both bears and people (USFWS 2013). Human-bear conflict can be problematic around developed areas (such as campgrounds, trailheads, and pavilions that may be a source of food attractants (USFWS 2013). Under the proposed action alternative, a new trailhead and pavilion would be constructed and could serve as sources of food attractants if trash is not disposed of properly. In addition, mountain biking and running on trails can pose increased risks of conflicts compared to hiking because people are moving quickly and quietly and can surprise bears at close range. Proposed trail crossings in riparian zones are also a potential area of grizzly bear conflict, as bears frequent riparian areas in the spring when trail use is also expected to be high. Many trail users are not prepared for a bear encounter. For example, Coltrane and Sinnott (2015) found only 10% of trail users in Alaska carried bear deterrents even with signage present.

The proposed action has potential to cause long-term changes in the distribution of grizzly bears within the analysis area as a result of disturbance/displacement in the vicinity of new trails, including from seasonally important habitat. Newly constructed trail would also increase the likelihood of bear-human conflicts, particularly in riparian habitats with thick vegetation. Due to trail development under the Action Alternative and growing tourism/human populations, recreational use of the trails and analysis area would continue to increase over time. Mitigation measures described below would reduce the risk of disturbance/displacement and human-bear conflict. For these reasons, the proposed action would have moderate adverse direct and indirect effects to grizzly bears.

Mitigations:

- Remove or impede access to attractants (such as food and trash), and install signage educating users on the importance of proper trash disposal in grizzly country, and packing out trash where cans are not available.
- ***Provide bear-proof*** trash cans ~~are present at most existing trailheads, and one would be provided~~ at the new trailhead.
- ~~Also~~ ***Provide*** public education and signage discussing bear presence and appropriate behavior while using trails in grizzly bear country (e.g., carrying bear spray, leashing dogs, avoiding using off-trail areas, and traveling in groups of four or more).
- ***Install signage specific to safe mountain biking in grizzly bear habitat.***
- ***Design*** trail to reduce the risk of bear encounters, to include increasing sight distances for mountain bikers and incorporating features that would discourage high speeds.
- ***Conduct annual*** maintenance that reduces or removes understory vegetation within the 16-foot-wide trail easement to increase sight distances immediately adjacent to the trail.
- ***Implement leash requirement for dogs on the trail between Swift Creek and Lazy Creek***.
- ~~Consider seasonal or temporary trail closures, particularly during the spring period~~. ***Implement seasonal trail gated closures during the spring period***.
- ***The City of Whitefish work with DNRC and other agencies on trail design and management of the trail corridors.***

Bull Trout - Threatened

Impacts to the bull trout habitat in Swift Creek due to the construction and placement of the pedestrian bridges would be the same as described for ***Fish*** in this section.

~~*Mitigations*: See mitigations in Section 3.3.2.2 – Stream Channel Characteristics at Proposed Stream Crossings. Also, minimize construction activities in and round Swift Creek during Bull Trout spawning.~~

Mitigations: See mitigations for fish.

- ***Follow Fish, Wildlife & Parks 124 permit requirements for construction activities in and around Swift Creek during fall Bull Trout spawning***.

Common Loon - Sensitive

Issue: The proposed trail and resulting recreational use along the undeveloped east shore of Smith Lake could displace nesting waterfowl and/or discourage future nesting attempts by common loons or waterfowl.

No common loon habitat would be directly disturbed by trail construction. However, common loons may be affected by recreational use on and off the proposed and existing trails where use occurs within 500 feet of nesting habitat (Hammond 2009). Areas of potential impact include a trail that is proposed along the shore of Smith Lake to join existing trails and form a loop around the lake. While common loons have not been observed on Smith Lake, it is potentially suitable for loons (MNHP 2018, Hammond 2009, DNRC unpublished data). Other waterfowl species do breed on Smith Lake (DNRC unpublished data). Additionally, approximately 354 feet of proposed trail ***could*** be located within 500 feet of Boyle Lake, where common loons nest annually. People and their pets may leave the designated trail tread to explore the shoreline for fishing or wildlife viewing, resulting in a larger affected area than just the trail corridor. Common loons are sensitive to disturbance, especially from motorized boating and canoeing (Hammond 2009; Evers and others 2010). Increased human activity along shorelines decreases the quality of loon nesting and nursery habitat through loss of vegetation, nest flushing and general disturbance from human presence, and facilitated predator access, particularly raccoons, which raid loon nests for eggs (Evers and others 2010). Repeated human disturbance may result in annual nest failures and may displace loons from future nesting in otherwise suitable habitat, thereby contributing to declines in the local breeding population. Boyle Lake currently receives little public use due to the lack of trails and access roads into the area. Construction and use of the proposed trail corridor near this lake would introduce new disturbance to nesting loons, which may be particularly sensitive due to the isolated nature of Boyle Lake. Signage, education, and seasonal closures have been shown to effectively mitigate disturbance impacts on loon reproductive rates (Hammond 2009). Therefore, disturbance effects on and near Smith Lake and Boyle Lake could be reduced through the use of signage to educate users about loons around sensitive nesting habitat during loon breeding season (April 1 to July 15), encourage them to stay on the established trail and leash their dogs (Hammond 2009).

The proposed action may result in changes in the abundance and distribution of common loons in the analysis area and disturbance effects would occur over the long-term. With the implementation of the mitigation measures, moderate adverse direct and indirect effects to loons are expected.

Mitigations:

- Construct trails near Boyle Lake outside of the loon nesting season.
- Relocate trails near Boyle and Smith lakes farther away from the lake shore and behind more vegetative screening.
- ***Install signage*** and educational information at trailheads focusing on loons and nesting waterfowl.
- ***Implement leash requirement for dogs around Boyle Lake.***
- ***Implement spring gated closure of trails within 500 feet of common loon nesting areas.***

- ***The City of Whitefish and WLP work with DNRC and other agencies on management of the trail corridors and development of a common loon BMP where applicable.***

Gray Wolf - Sensitive

Issue: The proposed trail construction, maintenance, and use could increase human access and reduce big game winter range habitat quality, which could displace gray wolves from denning and rendezvous sites, increase the risk of wolf-pet conflicts, and reduce prey availability

Gray wolves are generalist species and construction of a trail would not directly affect them from a habitat alteration standpoint. However, wolves are sensitive to human disturbance, which effectively results in habitat loss if they are displaced from otherwise suitable habitat (Rogala and others 2011). Wolves travel on trails that receive low human use, particularly in the winter (Whittington and others 2005, Paquet and others 1996). The level of human use is an important factor in determining if wolves will use or avoid trails. Wolves avoid trails where there is a high probability of encountering people (Whittington and others 2005; Rogala and others 2011). Paquet and others (1996) found that wolf displacement was related to both habitat quality and level of human use. Wolves will tolerate higher levels of human presence in higher quality habitat. In areas experiencing human use levels of <100 people/month there was no measurable displacement effect. When human disturbance was between 100-1,000 people/month wolves were displaced from suboptimal habitat but continued to use high quality habitat. When human presence was greater than 1,000 people/month, wolves were displaced from preferred habitat although they did not completely abandon the area. However, when use reached levels over 10,000 people/month, wolves were nearly eliminated from the area, including from high quality habitat. Current trail use in the analysis area is up to 65 users/day in summer (1,950 users in a 30-day month) and 18 per day in winter (540 users in a 30-day month). The number of users would be expected to increase with the level of trail and recreational infrastructure proposed under the Action Alternative. Based on the current number of users, recreational use of trails in the analysis area would result in displacement from preferred habitat in summer months and from suboptimal habitat in winter months. The displacement effect would likely increase over time as trail use increases with human population growth and development in Whitefish.

There is a correlation between trail use and the distance wolves are displaced. Rogala and others (2011) found that wolves avoided areas within 164 feet (50 meters) of a low-use trail (one or two people/hour). At eight users/hour they avoided areas within 656 feet (200 meters) and they avoided areas up to 1,312 feet (400 meters) away if trail use was above 10 people per hour. Whittington and others (2005) also reported wolves avoided areas within 25 to 200 meters of high-use trails (defined as trails that receive daily use in the winter). In addition, when directly approached by a human, wolves

initiated flight when the human was within 330 feet (100 meters) on average (Karlsson and others 2007).

Based on trail use statistics from the existing Swift Creek trails, if there are 65 users over a summer day with 16 hours of daylight, then four users per hour would be expected. If there are 18 users over a winter day with 8.5 hours of daylight, then two users per hour would be expected. For this project a 330-foot (100-meter) buffer around the proposed and existing trails within the analysis area is considered the potential disturbance zone. There is potential for wolves to be displaced from 609 acres as a result of the proposed action. ***In addition, new non-motorized access to previously inaccessible roads in the northwest and southern portions of the analysis area could disturb an additional 204 acres***. This displacement would be additive to 245 acres of displacement around existing trails and 45 acres around the disc golf course, for a total disturbance footprint of approximately ~~900~~ ***1,103*** acres. Thus, wolves could be displaced from ~~38 percent~~ ***47 percent*** of the analysis area.

Several studies have found that wolf populations near human use areas adjust their activity to avoid times of day when people are active (Claar and others 1999; Hebblewhite and Merrill 2008; Theuerkauf and others 2003). In addition, wolves are more likely to be disturbed from den and rendezvous sites as well as from predation sites in areas of high human activity (Whittington and others 2005). Abandonment of dens may affect reproductive rates if pup mortality occurs. Den sites and rendezvous sites are present on Flathead National Forest but are not known to occur in the analysis area (C. Forristal, DNRC, personal communication).

Conflict with dogs is a potential effect, which could have negative consequences for both dogs and wolves. Dogs also may introduce disease into the wolf population. Dog-wolf encounters are likely more of a problem when dogs roam across large areas far from the owner and are barking, as when used for hunting bears or mountain lions (Claar and others 1999). However, if human use of trails displaces wolves from a 330-foot (100-meter) area around the trails, and wolves ***may*** shift their activity to nocturnal periods, negative dog-wolf encounters would be less likely.

The proposed activities could reduce the quality of big game winter range and thus affect prey availability for wolves. Effects to big game were analyzed previously. Adverse impacts to big game winter range would be low to moderate depending on the number of trail users in winter and potential seasonal closures that may be considered to mitigate effects on big game.

The proposed action may result in localized, long-term changes in the abundance and distribution of wolves in ~~36~~ ***47*** percent of the analysis area. ~~Disturbance effects would be reduced by trail closures if den or rendezvous sites are located near trails and signage encouraging users to leash dogs and stay on the trail, therefore~~ ***With the implementation of the mitigation measures,*** the proposed action would result in moderate, adverse direct and indirect effects to wolves.

Mitigations:

- If wolf dens or a rendezvous site are discovered in the analysis area, implement mitigations (e.g. trail closures) to minimize disturbance to breeding wolves and to provide for public safety.
- Consider mitigations to reduce impacts on big game prey.
- ***Install signage*** encouraging proper control of dogs, ***including mandatory leashing on certain trail segments.***
- ***The City of Whitefish and WLP work with DNRC and other agencies on management of the trail corridors***.

Harlequin Duck - Sensitive

The proposed trail corridor would cross perennial streams five times, including Smith Creek (two crossings), Brush Creek, Swift Creek, and Lazy Creek. Swift Creek is a high-gradient stream and is the most suitable habitat for harlequin ducks. They have been observed on Swift Creek in the past (MNHP 2017). However, evidence of breeding has not been observed (MNHP 2017; DNRC unpublished data). Pedestrian bridges would be constructed at stream crossings. The vegetation is dense in these areas and provides visual screening and none of the stream reaches near crossing sites likely provide suitable nesting habitat for harlequin ducks. However, people and their pets could leave the designated trail tread to explore stream banks, access water, or to fish. Harlequin ducks are highly sensitive to disturbance in the breeding season and actively select inaccessible stream segments for nesting (Hamann and others 1999). Females may flush off a nest and may be off the nest for a few hours (Robertson and Goudie 1999). Fishing may have a greater negative effect than hiking disturbance (Hamann and others 1999). Recreational use on and off trail at stream crossings could disturb individual harlequin ducks in the area and could displace them from future use of otherwise suitable habitat. ~~Signage encouraging users to stay on the established trail would reduce this effect.~~ Adverse effects to harlequin ducks from trail use over the long-term are expected to be low ***with the implementation of mitigation measures and*** because there is abundant, higher-quality undisturbed stream habitat upstream of the trail crossings ***and*** dense vegetation in ***the*** riparian zones ~~would have~~ ***that provides*** a screening effect ~~and signage would discourage off-trail use~~.

Mitigations:

- ***Bridge construction over Swift Creek will occur outside of the harlequin duck nesting season, April 1 to July 15.***
- ***Install signage discouraging off-trail use, managing dogs, and proper trail behavior.***
- ***The City of Whitefish and WLP work with DNRC and other agencies on management of the trail corridors***.

3.4.2.3 Cumulative Effects of the Proposed Action

General Wildlife

In general, trails are a minor impact in terms of habitat loss since the cover type, forest structure, and connectivity of habitat are not altered to a measurable degree. However, wildlife may be disturbed and displaced from areas surrounding the proposed and existing trails because of human recreational use. The disturbance zone associated with trails was defined as the area within a 330-foot (100-meter) buffer ***of the trail corridor and proposed structures***. The proposed action would result in total disturbance of ~~854~~ ***1,058*** acres along trails (~~245~~ ***813*** acres[2] of which would be new disturbance), which is ~~1.4~~ ***1.6*** percent of the CEAA (new disturbance would affect ~~0.4~~ ***1.3*** percent of the CEAA). There are 2,137 acres of existing disturbance in the CEAA from recreation projects (3 percent), including 1.8 miles of trails on the Flathead National Forest (193 acres), 37 miles of trails on state trust lands (1,899 acres), and the disc golf course to be built in 2018 (45 additional acres of disturbance/displacement not already accounted for in adjacent trail buffers). Additional disturbance would occur in the future from the following proposed recreation projects in the CEAA: 8.5 miles from Close the Loop trails ***plus 4 miles of a newly accessible road*** (this project), which would affect ~~609~~ ***813*** acres of state trust lands, and the Taylor-Hellroaring Trails project on the Flathead National Forest, of which 27 miles of trails (1,657 acres) under Alternative 2 and 20 miles of trails (1,372 acres) under Alternative 3 would be within the CEAA. Recreational use in these existing and proposed projects would affect a total of up to 4~~,403~~ ***4,607 acres*** (7 percent) of habitat in the CEAA. Based on GAP land cover mapping, roads encompass 2,296 acres (4 percent) of the CEAA. Approximately 1,602 acres (3 percent) of the CEAA is residential and commercial development based on GAP land cover mapping. Of the cumulative disturbance from existing and proposed recreational use in the CEAA, ~~609~~ ***813*** acres (~~14~~ ***18*** percent) ~~of which~~ would be ***from*** new disturbance associated with the proposed new trails.

The large block (15,333 acres, 24 percent of CEAA) of undeveloped Weyerhaeuser and recently-acquired DNRC land in the center of the CEAA may serve as a refuge from persistent, long-term disturbance since public motorized access is limited. Much of it is likely to remain undeveloped in the future due to existing ~~and proposed~~ conservation easements. The habitat has been affected by past intensive forest management and contains little mature forest.

The proposed action, in addition to existing projects and recreation, could affect the abundance and distribution of wildlife in the area localized around the trails and alter the timing of wildlife activity as many species may shift to a ***more*** nocturnal ***or crepuscular*** activity period in an attempt to avoid human disturbance.

[2] This was an error in the draft, 245 acres is the existing disturbance, not new (WR 6/22/2018).

Disturbance and displacement that occurs from recreational uses in the CEAA could cumulatively affect wildlife species as blocks of undisturbed habitat are incrementally reduced in size and fragmented and human access is increased.

Disturbance from these projects would be long-term since the effect would continue for as long as the trails and facilities are being used. In addition, trail use would likely increase in the area as the population of Whitefish increases and tourism and recreational development also increase. Population-level effects on wildlife are not expected because only a small portion of the CEAA (7 percent) would be affected by existing and proposed recreational disturbance. New disturbance from the proposed action alone would affect only one percent of the CEAA. Overall, ***with the implementation of mitigation measures specified in Section 3.4.2.2***, there would be ~~moderate~~ ***low*** adverse cumulative effects to wildlife species.

Fish

Due to the isolated location of both bridge sites, current exposure of the stream channel, gravel bars, flood plains and fish populations in the stream to the general public is very limited. By installing the new trails and pedestrian bridges, the general public would have easier access to the stream reaches both upstream and downstream of the bridge sites. This access would allow more use in these areas and may affect the physical characteristics of the stream reach. Overall, ***with the implementation of the mitigations measures specified in Section 3.4.2.22***, the trails and bridge ~~construction is not likely to have an impact on the fish habitat~~ ***would have long-term low adverse cumulative effects to fish*** in Swift Creek or Lazy Creek.

Big Game

The disturbance zone for big game in this analysis is the area within 330 feet (100 meters) of a trail. Big game are likely habituated to the existing recreational use in the CEAA area. In terms of the proposed action, approximately ~~609~~ ***245*** acres[3] are currently affected by existing disturbance along trails in the project easements, and an additional ~~245~~ ***609*** acres would be affected by new recreational disturbance along new trails. ***An additional 204 acres could be disturbed by nonmotorized recreational use of public roads that would become accessible from trail crossings***. Disturbance around the disc golf course would add 45 acres of disturbance. Total cumulative disturbance area would be ~~4,360~~ ***4,607*** acres (7 percent of the CEAA), which would increase the level of effect by increasing the number of people and pets using the area, and reducing the availability of refuge areas. In addition, displacement from winter range is an adverse effect since this is typically a period of time when animals are most stressed.

[3] This was an error in the draft, 245 acres is the existing disturbance, not new (WR 6/22/2018).

For mule deer, ***there are 14,781 acres of winter/general range and 47,908 acres of general range in the CEAA***. Recreational use within the proposed easements would affect (or has already affected) ~~746~~ ***816*** acres of winter/general range and ~~153~~ ***287*** acres of general range. A total of approximately ~~2,560~~ ***2,694*** acres (~~five~~ ***six*** percent) of general range and ~~1,793~~ ***1,863*** acres (~~12~~ ***13*** percent) of winter/general range in the CEAA would be or have been affected by cumulative recreation projects.

For white-tailed deer, ***there are 31,255 acres of winter/general range and 31,434 acres of general range in the CEAA***. Recreational use in the proposed easements would affect (or has already affected) ~~900~~ ***1,104*** acres of winter/general range. The total cumulative area of ~~1,553~~ ***1,757*** acres (five percent) of general range and 2,800 acres (nine percent) of winter***/general*** range in the CEAA would be disturbed.

For elk, ***there are 16,492 acres of winter/general range and 45,758 acres of general range in the CEAA***. Recreational use within the proposed easements would affect (or has already affected) ~~746~~ ***816*** acres of winter/general range and ~~153~~ ***287*** acres of general range. A total of ~~2,531~~ ***2,668*** acres of general range (six percent) and ~~1,822~~ ***1,892*** acres (11 percent) of elk winter***/general*** range ~~available~~ in the CEAA would be affected by disturbance/displacement.

For moose, ***there are 61,053 acres of winter/general range and 1,636 acres of general range in the CEAA***. The proposed action would affect (or has already affected) ~~900~~ ***1,104*** acres of winter/general range. The total cumulative area of 67 acres (four percent) of general range and ~~4,286~~ ***4,490*** acres (seven percent) of winter/general range available in the CEAA could be affected by cumulative disturbance.

An increase in hunting mortality in the CEAA could occur due to the existing and proposed trails projects increasing human access. Though poaching is always possible, in general, low effects to big game populations are expected since the number of big game killed legally each year is regulated by Montana Department of Fish, Wildlife and Parks. Increases in hunter activity in the area due to the increased access could add additional disturbance from off-trail use.

Moderate amounts of big game winter range in the CEAA (nine to twelve percent depending on the species) would be cumulatively affected by disturbance/displacement from areas near trails. Disturbance may result in localized changes in abundance and distribution of big game along the 330-foot (100 meter) disturbance zone surrounding the trails but it is unlikely to have population-level effects given the remaining undeveloped winter range in the cumulative effects analysis area ***(12,918 acres for mule deer, 28,455 acres for white-tailed deer, 14,600 acres for elk, and 56,563 acres for moose)***. During winter, when big game may be most sensitive to disturbance, recreational use is expected to be substantially less than summer use levels (2/3 less based on statistics from Swift Creek trails). Disturbance effects would be reduced through ~~signage discouraging off-trail use and encouraging leashing of dogs~~

mitigations specified in Section 3.4.2.2. Therefore, the proposed action would have long-term, low ~~to moderate~~ adverse cumulative effects to big game.

Threatened, Endangered, and Sensitive Species

Canada Lynx - Threatened

A Canada lynx was detected in the CEAA in 2016 during a recent winter carnivore survey (C. Forristal, DNRC, personal communication). A complete map of Canada lynx habitat for the entire CEAA was not available. However, based on habitat mapping on state land in the CEAA, lynx summer foraging, winter foraging, and other suitable habitat are likely present and well-represented throughout the CEAA. Disturbance from the proposed and existing trails in the project easements would affect one percent and 0.4 percent of the CEAA (using a disturbance distance of 330 feet (100 meters) from trails). Canada lynx may be disturbed/displaced from recreational use along 38.8 miles of existing trail (2,094 acres) and 35.5 miles of proposed trails (~~2,266~~ ***2,470*** acres) (including this project and trails proposed in the USFS Taylor Hellroaring project) within the CEAA. Therefore, the total potentially affected area is up to ~~4,360~~ ***4,564*** acres, or seven percent of the CEAA.

Lynx are wide-ranging, make long-distance dispersal movements, and are capable of crossing forest roads, trails and even highways (Ruediger and others 2000; Baigas and others 2017). These movements appear to be most common at night (Baigas and others 2017), when recreational trail use would be very low. Therefore, trail construction and disturbance from trail use in the CEAA would likely have a low risk of impeding broad-scale lynx movements (i.e., dispersal to new areas) or reducing landscape connectivity for the regional population. Furthermore, while the proposed action could cause a slight shift in habitat usage within one or two lynx home ranges, measurable changes to the lynx population within the CEAA would not be expected.

~~Mitigation measures would be implemented to reduce disturbance/displacement effects, including signage encouraging trail users to remain on the trail tread and leash dogs. In addition, DNRC would implement mitigations, to and including temporary trail closures, if a den site is located near a trail~~. With the implementation of mitigation measures ***as specified in Section 3.4.2.2***, low adverse cumulative effects to Canada lynx are expected.

Grizzly Bear - Threatened

Of the cumulative disturbance in the CEAA, ~~854~~ ***1,058*** acres (one percent of the CEAA) would be from the proposed action alternative. Approximate 609 acres (one percent of the CEAA) would be affected by new disturbance associated with the proposed action. Approximately 2.2 miles of existing trails ***on state and USFS land in the CEAA are in the grizzly bear recovery zone (0.6 mile of existing trails are part of the proposed action***). ~~and~~ ***Up to 26.8 miles*** ~~50.2 miles~~ of proposed trails ***(Alternative 2 in the USFS Taylor Hellroaring project)*** ~~are~~ in the CEAA are in the grizzly bear recovery zone ~~(0.6~~

~~miles and zero miles~~ (***none*** are part of the proposed action ~~respectively~~). Recreational use of existing and proposed trails (including ***up to 26.8 miles*** trails proposed in the USFS Taylor Hellroaring project) and the disc golf course in the CEAA could disturb and displace grizzly bears from a total of ~~4,403~~ ***4,607*** acres (seven percent) of the CEAA (using a disturbance distance of 330 feet (100 meters) from trail/course). Based on GAP land cover mapping, approximately 3,897 acres (six percent) of the CEAA is currently residential development, commercial development and existing roads.

There are 56,404 acres of general spring habitat in the CEAA, of which ~~2,482~~ ***2,686*** acres (four percent) would be affected by disturbance from recreational use of proposed and existing trails. The proposed action would add ~~609~~ ***813*** acres of disturbance/ displacement from general spring habitat, which is one percent of what is available in the CEAA. ***A spring trail closure, if implemented, between Swift Creek and Boyle Lake would reduce the potential for disturbance by approximately 243 acres***. In addition, the proposed and existing trails cross streams and riparian areas, which is important foraging habitat for grizzly bears. Out of 5,216 acres of riparian habitat in the CEAA, nine acres would be affected by disturbance within the project easements and an additional 10 acres from cumulative projects, for a total disturbance in riparian zones of 19 acres (<1 percent of riparian habitat in the CEAA).

~~For the proposed action, DNRC could implement seasonal spring trail closures to reduce the risk of human-grizzly bear conflicts and disturbance during the important spring period when bears are attempting to recover from winter hibernation. Temporary trail closures would also be considered any time grizzly bears are observed in the area. To further reduce the risk of human-bear conflict resulting from food conditioning, bear-resistant trash cans would be present at the trailhead. Signs would be posted to educate trail users on recommended trail behavior in grizzly bear habitat, including making noise, recreating in groups, proper trash disposal, leashing of dogs, and carrying bear spray~~. ***The*** mitigation measures ***specified in Section 3.4.2.2*** would reduce the disturbance/displacement effects and risk of human-grizzly bear conflict contributed from the proposed and existing trails in the project easements. However, disturbance from recreational use of existing and proposed trails on DNRC-managed lands, combined with existing and proposed trails on other ownerships could displace grizzly bears from a small amount of the CEAA (seven percent). Additionally, the risk of bear-human conflicts would increase from existing conditions. For these reasons, the proposed action would have moderate, long-term adverse cumulative effects to grizzly bears.

Bull Trout - Threatened

Habitat characteristics for bull trout include cold, clean water in a stream channel with a large amount of habitat diversity created by large wood or large boulders. Channel substrate is a mixture of sand, gravel, cobbles and boulders with a very low embeddedness ratio. These large inter-gravel spaces encourage high invertebrate production rates and create cover for juvenile fish. It is anticipated that these stream

characteristics would be maintained after the trail and pedestrian bridges have been constructed. ***With mitigations measures specified in Section 3.4.2.2,*** ~~Some~~ ***moderate*** short-term construction impacts to Bull Trout habitat would occur around the bridge installation sites ~~but no~~ ***with low*** long-term ***cumulative*** impacts ~~are~~ anticipated. ~~During construction of the Swift Creek pedestrian bridge, negative impacts to bull trout habitat in the vicinity of the bridge locations would be low to moderate in the short term due to the construction activities.~~

Common Loon – Sensitive

There are 10 lakes within the CEAA that Hammond (2009) classifies as known or potential loon nesting habitat. Existing and proposed trails on Flathead National Forest are not near lakes. However, recreational use of existing trails on state lands in the Beaver Lake Trail area, has potential to disturb the shorelines of six lakes that have known or historic loon nesting or are considered potential loon habitat per Hammond (2009). In recent years, loons have successfully reproduced on both Beaver and Little Beaver Lakes, despite existing trails in the vicinity of these lakes. New trails proposed for this project would add additional disturbance to a portion of the Boyle Lake shoreline (a known loon nesting site that is currently undisturbed) and Smith Lake (no loon nesting or occupancy has been documented, but it is potentially suitable). Of the 10 potential loon breeding lakes, only Meadow Lake (which also does not have any recent breeding loon history) would not be affected by existing and proposed trails. Disturbance effects would occur over the long-term since the trails would be used for the foreseeable future.

~~Signage educating users about sensitive loon habitat on shorelines and lakes has been shown to effectively reduce adverse effects to nesting loons, and would be implemented for this project. Signage would also educate users on the importance of staying on the trail tread and keeping dogs leashed. Relocating short stretches of trail farther away from Boyle Lake and behind more vegetative screening could also reduce the risk of nest disturbance. Finally, DNRC could implement seasonal closures of trails near Boyle Lake if trail use is disturbing nesting loons. Therefore, with the implementation of these mitigation measures~~ ***With the implementation of mitigation measures specified in Section 3.4.2.2,*** there would be ~~minor~~ ***low*** long-term cumulative effects to common loons.

Gray Wolf – Sensitive

The gray wolf is a generalist species and can be found throughout the 62,773-acre CEAA. Although MFWP no longer tracks individual wolf packs, historic data indicate packs have occupied and denned within CEAA, and likely ~~will~~ ***would*** continue to do so. The annual home ranges of the historic packs were similar in size and boundaries as the CEAA.

Wolves may be disturbed/displaced by recreational use along 38.8 miles of existing trail (2,094 acres) and 35.5 miles of proposed trails (2,266 acres) (using a disturbance

distance of 330 feet (100 meters) from trails in the CEAA. ***In addition, disturbance may occur from new nonmotorized access to 4 miles (204 acres) of previously inaccessible public road due to new trail crossings of these roads***. Therefore, the potentially affected area is up to ~~4,360~~ ***4,564*** acres, or seven percent of the CEAA. Disturbance from the proposed and existing trails in the project easements would affect one percent and 0.4 percent of the CEAA, respectively.

If the proposed activities result in a reduction in the abundance and distribution of big game, negative indirect effects could be expected to wolves. Cumulative disturbance from recreation would affect ~~1,793~~ ***1,863*** acres (12 percent) of mule deer winter range, 2,800 acres (nine percent) of white-tailed deer winter range available, ~~1,822~~ ***1,892*** acres (11 percent) of elk winter range, and ~~4,286~~ ***4,490*** acres (seven percent) of moose winter range in the CEAA. Disturbance from winter recreation on proposed and existing trails would have a low to moderate effect on wintering big game (see analysis in Big Game section above).

Recreational use of new and existing trails in the proposed project easements would occur over the long-term and would contribute to the ongoing and expected recreational disturbance in the CEAA. However, wolves would be expected to continue to utilize and potentially breed within the CEAA. ~~Mitigation measures would be implemented to reduce disturbance/displacement effects to wolves and big game and the potential for wolf-dog conflict, including signs posted at trailheads encouraging trail users to remain on the trail tread and leash dogs. In addition, trail closures would be implemented if a den or rendezvous site is located near a trail.~~ With the implementation of mitigation measures ***specified in Section 3.4.2.2***, low adverse cumulative effects to gray wolves are expected.

Harlequin Duck – Sensitive

Recreational use of trails that cross perennial streams have potential to disturb nesting harlequin ducks in the CEAA. There are 88 miles of perennial streams in the CEAA, primarily located north and northeast of this project's proposed easements. Of these miles approximately 56 miles could be potentially suitable for use by harlequin ducks. Although individual harlequin ducks have been observed on Swift Creek (the highest-quality habitat within the CEAA), no evidence of breeding has been observed (MNHP 2019, DNRC unpublished data). The proposed action would involve crossing four perennial streams that are potentially suitable habitat. Assuming a trail width of 16 feet, 64 feet of stream (0.01 mile) could be affected by direct displacement. In addition, eight perennial streams in the CEAA could be crossed by the proposed trails in the Taylor-Hellroaring project area on Whitefish National Forest. Cumulatively, 192 feet of stream (0.04 mile) could be affected, which is 0.07 percent of the potentially available miles of perennial stream in the CEAA. ***With the implementation of mitigation measures specified in Section 3.4.2.2 and*** ~~Given~~ that a ~~very~~ small proportion of the streams in the CEAA would be affected by this project and other existing and proposed

trails projects in the CEAA, cumulative adverse effects to harlequin ducks are expected to be negligible.

3.5 Cultural Resources

3.5.1 Existing Environment

A Class I literature review was conducted by the DNRC archaeologist for the proposed Close the Loop Trail Easement (approximately 16 acres) and the 480-acre Public Recreation Use Easement Area. The literature review included an examination of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. This review concluded most of the easement areas have Class III level inventory work since 1987. In effect, Class III work conducted for roadways, timber sale areas, land exchanges, and a private septic system has covered many of the easement areas.

Three cultural resources occur within, or very near, the easement areas. Site 24FH350 represents the route of a Great Northern Railroad spur. The spur road is fully abandoned and barely visible in the easement areas. The proposed trails would make use of segments of the spur road when possible, and trail construction would not obliterate any of the existing site. Site 24FH350 is eligible for listing in the National Register of Historic Places (NRHP).

Site 24FH367 consists of the badly deteriorated remains of a log cabin. The cabin appears to be located just outside the easement area for one segment of proposed trail, so this building should not be disturbed by proposed developments. Eligibility for listing in the NRHP has not been determined for Site 24FH367.

Site 24FH425 is a short segment of logging railroad grade constructed in 1929. The railroad grade is fully abandoned and barely visible in the easement areas. Trail construction would follow segments of the railroad grade when possible, but would not destroy any of the existing site. No determination of NRHP eligibility has been completed for Site 24FH425.

3.5.2 Environmental Effects

3.5.2.1 No Action – Direct and Indirect Effects

Under the No Action alternative, the proposed trails would not be constructed, and there would be no project-related effects on known historic properties.

3.5.2.2 Proposed Action– Direct and Indirect Effects

The project would result in no effect to State-owned Heritage Properties, no additional archaeological investigative work was conducted in response to this proposed development.

Construction of the proposed trail would make use of certain segments of the spur road (Site 24FH350), but construction work would not destroy any of the existing site. Therefore, the current project would have no direct effects on Site 24FH350.

Sites 24FH367 and 24FH425 represent a log cabin and a segment of a logging railroad grade. Both sites have no eligibility determination for listing in the NRHP. The cabin appears to be located outside the easement areas, while the logging railroad grade may be used in trail construction. Like the Great Northern Railroad spur, construction work may incorporate segments of the logging railroad grade, but project work would not impair the existing site. The current project would cause no harm to sites 24FH367 or 24FH425. However, Site 24FH367, the log cabin, is located just outside an easement area, and this site may be subject to indirect damage if hikers leave the trail and vandalize this historic cabin.

3.5.2.3 Cumulative Effects of the Proposed Action

Cumulative impacts from past actions have led to the current conditions discussed in the existing environment. As there would be no direct effects on the sites documented in the area, the project construction would not have cumulative impacts. There are no other planned or known activities that would lead to additional cumulative impacts on any of the sites.

3.6 Recreation

3.6.1 Existing Environment

The analysis area for recreation includes the Recreation Easement Area, the proposed Close the Loop Trail footprint, and the existing Whitefish Trail located in five subareas (Lion Mountain, Skyles Lake, Spencer Mountain, Beaver Lakes, and Swift Creek). ~~The existing Whitefish Trail, is about 40 miles long and includes eight trailheads.~~ ***The Whitefish Trail currently consists of 10 trailheads and 36 miles of natural surface trail comprised of stacked loops, scenic overlooks, single-track trails, and gated logging roads. The City of Whitefish in partnership with Flathead Area Mountain Bikers (FAMB) also hold a license for approximately 6 miles of freeride trails on Spencer Mountain. A state general recreation use license is not required within the Whitefish Trail corridor and Spencer Mountain trails as the City of Whitefish in conjunction with WLP and FAMB have paid for the public's right to utilize them.***

The existing agreements in place also allow for the City and WLP's to host noncommercial, special events such as equipment demonstrations, outreach activities, fundraising events, educational activities, hikes, and bike events. The Whitefish Trail Learning Pavilion, located just a half mile from the Lion Mountain Trailhead, offers a base for environmental educational programs for the community and opportunities for people to engage with their natural surroundings. The ***proposed*** easement areas are ***located*** entirely on state land, and none of the areas has been designated for non-motorized use, except that the Swift

Creek trail is designated non-motorized. The non-motorized use that occurs in the area is generally limited to bicycling, hiking, and walking, whether it be for enjoying the outdoors, viewing wildlife, photography, or hunting and fishing. Trails and roads that are designated non-motorized or motorized are shown in Figure 8.

Several county roads (East Lakeshore, Delrey, and Beaver Lake Road) ***and state forest roads*** provide motorized access to homes, trailheads, fishing and boating access points, viewpoints, parks, or for forest management. There are no ~~state~~ ***DNRC*** roads that access parks. Smith Lake is accessed by the West Smith Lake Road.

As state school trust land, this area is open to hunting, fishing, and other recreational activities that require a State Recreational Use License. Hunting and fishing licenses include authorization to hunt and fish on state lands. In 2017, 496,707 conservation licenses were sold state-wide. DNRC reports that general recreational use licenses sold state-wide in 2017 was:

- 2,135 for 0 to 17 and 60-year olds or more;
- 3,821 to 18 to 59-year olds;
- 1,482 to families; and
- 485 to enrolled Confederated Salish – Kootenai Tribe members.

Along with general dispersed recreational use, the DNRC also grants Special Recreational Use Licenses (SRULs) to entities wishing to conduct short term events. SRULs can be commercial or non-commercial in nature and are issued for concentrated use such as product demo days, races and special events. Events such as the Two Bear Marathon and the Glacier Challenge have been held annually on sections of the Whitefish Trail. The DNRC mitigates the authorized use so as to not cause damage to existing developed trail-related improvements.

In April 2018, a research paper titled, "The Economic Impact of Outdoor Recreation and the Whitefish Trail in Whitefish, Montana" was published by Headwaters Economics. They installed Eco-Counter infrared trail counters at the four most popular Whitefish Trail trailheads: Lion Mountain, Beaver Lakes, Swift Creek, and Spencer Mountain. These counters sum the number of people that pass by the counter every 15 minutes, regardless of travel mode. They also conducted in-person surveys at the four trailheads and four in-town locations from May 1 through October 31, 2017. The research paper reported that Lion Mountain is the most popular trailhead, with 33 percent more uses than the other three trailheads combined. Mode varies substantially across trailheads, with Lion Mountain and Swift Creek the main destinations for pedestrian users. Spencer Mountain is two-thirds mountain bikers, and Beaver Lakes is roughly half bicycles and half pedestrians.

Summarized trail user data from the ***WLP's and Headwaters Economics*** ~~DNRC~~ for ~~2016 and~~ 2017 are provided in ***Table 7. Trail Usage January 2017 – December 2017***.

Table 7. Trail Usage January 2017 – December 2017

Trail	***Yearly Total Visits***	***Summer Monthly Average Visits (June-Sept):***	***Winter Monthly Average Visits (Dec-Mar):***	***Average Summer Daily Visits (June-Sept):***	***Average Winter Daily Visits (Dec-Mar):***
Lion Mountain	***43,615***	***4,812***	***2,353***	***158***	***78***
Swift	***13,473***	***1,818***	***573***	***60***	***19***
Beaver	***8,237***	***1,136***	***311***	***37***	***10***
Spencer	***9,654***	***1,285***	***196***	***42***	***7***

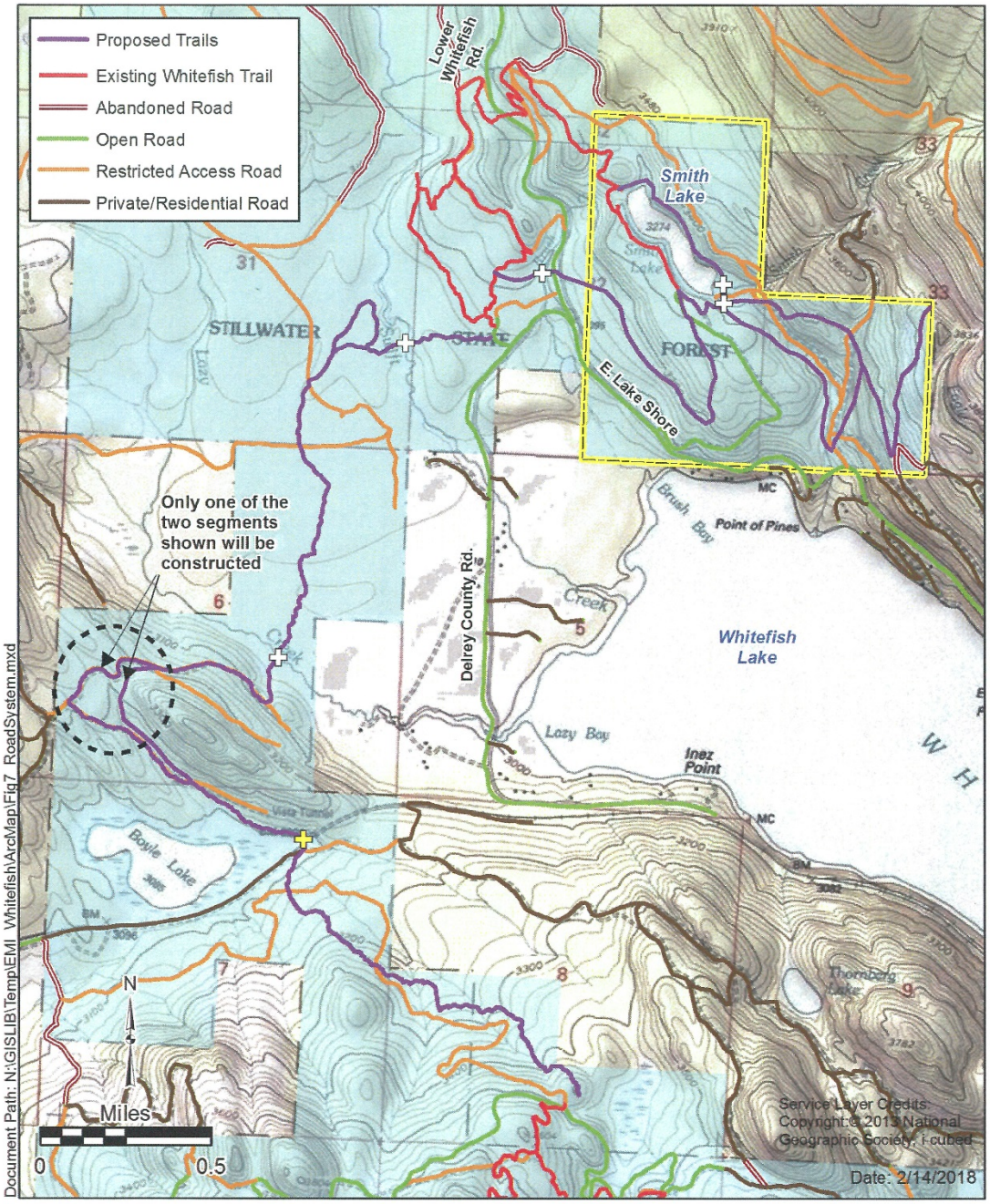
Note: "Users" refers to individuals who are on the trail at least once during the year. "Uses" refers to each occasion people are on the trail.

~~**Table 7. Trail Usage 2016-2017**~~

~~**Trail**~~	~~**Total Annual (July 2016 through July 2017)**~~	~~**Average High/ Month**~~	~~**Average Low/ Month**~~	~~**Summer Daily Average**~~	~~**Winter Daily Average**~~
~~Beaver~~	~~8,281~~	~~1,286~~	~~333~~	~~41~~	~~11~~
~~Swift~~	~~13,147~~	~~2,024~~	~~569~~	~~65~~	~~18~~

~~Source: Trail user data 2016 and 2017. DNRC 2017~~

Figure 8. Motorized and Non-Motorized Roads and Trails



Legend

- Proposed Bridge
- Proposed Railroad Crossing
- Proposed Recreation Use Easement
- MT DNRC Land

Figure 8
Motorized and Non-Motorized Roads and Trails
Close the Loop Trail and Recreation Use Easements EA
Flathead County, Montana

Smith Lake is frequented recreationally for fishing, hiking, camping and other recreational pursuits. A portion of the existing Swift Creek Trail runs adjacent to the west side of Smith Lake. Motorized access to the lake is from West Smith Lake Road which provides for limited parking. The lake is impounded by a DNRC-managed earthen dam that was built in 2012. The dam and spillway has received minor resource damage from general recreation by a user-built trail leading onto the dam as well as displacement of riprap along the spillway.

Approximately half an acre of the Whitefish gravel pit serves as the existing trailhead northeast of Whitefish Lake, currently known as the Swift Creek Trailhead and accesses approximately 3.7 miles of existing trail. The trail system is currently patrolled by volunteers who collect data, provide education, and offer assistance when needed. ~~Trail counters were installed by the City of Whitefish to monitor use of the Whitefish Trail at the Swift Creek Trailhead and Beaver Lakes Trailhead in July 2016 **(*see Table 7, Trail Usage January 2017 – December 2017).***~~

This gravel pit also serves as a trailhead and parking for a snowmobile trail maintained by the Flathead Snowmobile Association that accesses a system of groomed snowmobile trails on state land. The snowmobile trailhead and trails are annually maintained and groomed from December 1st through April 1st.

The Whitefish Disc Federation has a term license ***from the DNRC*** to construct and maintain a 27-hole disc golf course ~~from the DNRC~~. Construction of the course is expected in 2018. The license will expire in 2027 if not renewed. The course is located near Smith Lake in the southeast quarter of Section 32, T32N R22W (Figure 9). Additional parking is approved and may be built in the future. The current parking for the disc golf course does not use the same parking areas or trailheads as the Whitefish ***Trail***. If additional parking is needed for the disc golf course, the DNRC has identified areas adjacent to the West Smith Lake Road as the location for possible additional 0.5 acre of parking (DNRC ***2017a***).

3.6.2 Environmental Effects

3.6.2.1 No Action – Direct and Indirect Effects

Not granting the easement and developing the trail would result in no direct impacts on or conflicts with current uses, particularly non-motorized recreational use, traditional recreational pursuits such as hunting and fishing, and licensed activities such as the Swift Creek Trailhead, parking for snowmobiles, or the disc golf course. As no trail would be constructed within the same area as the disc golf course, conflicts with this use would be minimal in the future under the No Action alternative.

3.6.2.2 Proposed Action – Direct and Indirect Effects

~~The Close the Loop Trail, Swift Creek Trail, and Public Recreation Use Easements~~ ***This project, as proposed,*** would preserve the recreational value and provide additional public recreational amenities near the City of Whitefish.

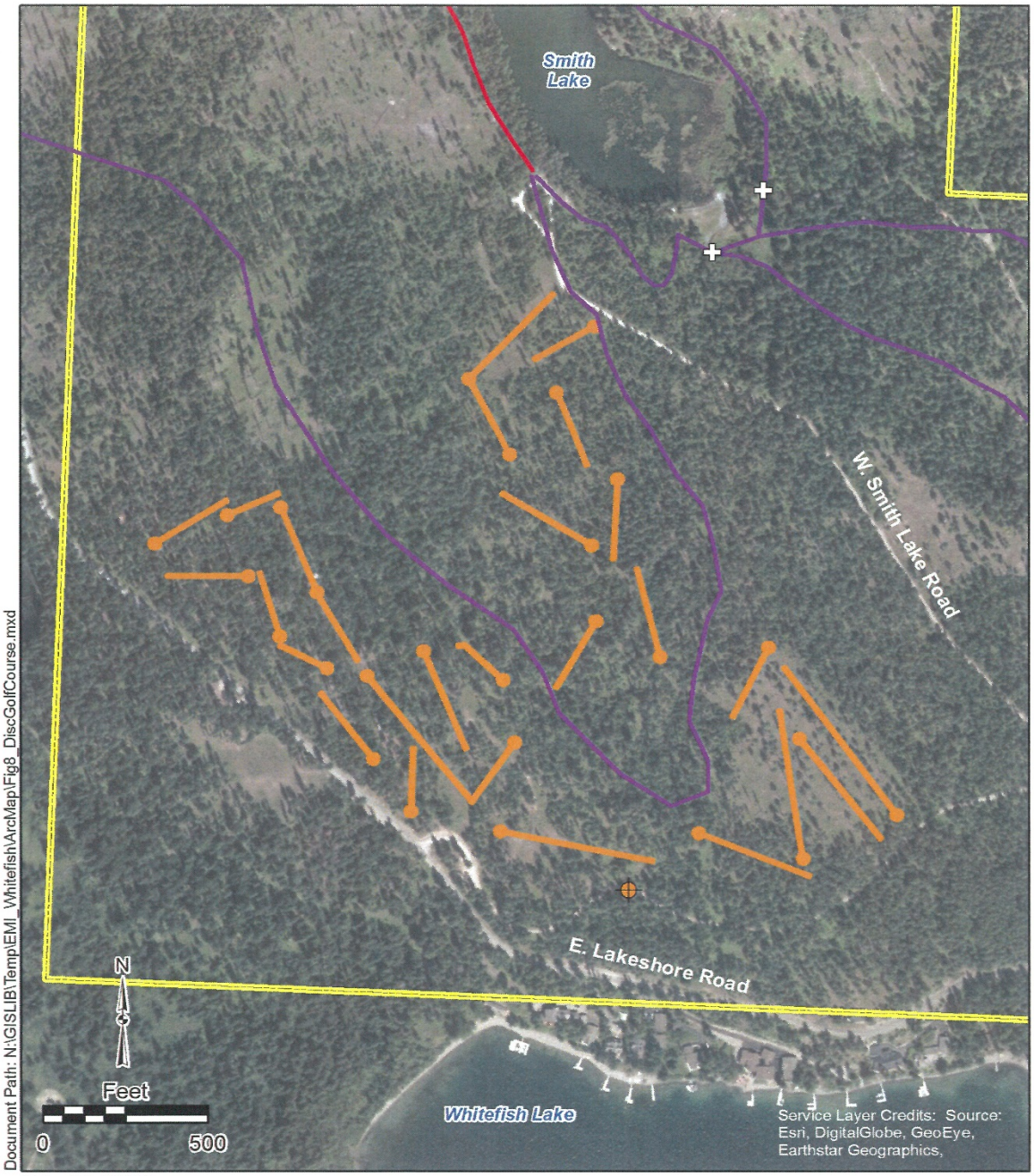
One new trailhead, additional parking, a pavilion and day use site, new trails, and five bridges (one additional bridge on BNSF is also required) would be constructed under the proposed easements. The preliminary locations of these features are identified on Figure 1; however, the final location and design of these features would be finalized after consultation with DNRC managers and resource specialists.

The establishment of a learning pavilion would increase opportunities for recreation and outdoor education activities, as would the nearby trails, adjacent bridge, and pavilion information kiosk. The construction of a fence along the perimeter of the outlet of Smith Lake would protect the integrity of the earthen dam and prevent resource damage from dispersed use. In addition, there would be ADA accessibility for pavilion parking, trails and increased exposure to educational information related to a working forest.

Development of the trail system would increase the overall use of the area. DNRC anticipates the increase in use would be moderate. How much activity increases would depend on the public gaining knowledge of the area, quality of the experience, and availability of areas providing similar access nearby. The extent to which the public becomes familiar with the area and uses it depends largely on promotion and word-of-mouth. More people or more use would continue with many of the traditional recreational activities. ***The Swift to Lazy segment of proposed trail may lend itself to a broader spectrum of users due to the relatively flat terrain. Currently, most of the Whitefish Trail offers an intermediate to advanced user experience because of modest elevation gains and losses***. While more people hiking, biking, and walking may change the user experience by making it feel more urban and less rural, these changes would not be considered a conflict.

A public concern (Table 1) was raised that the trail corridors, pavilion, and other infrastructure may not lend themselves to all non-motorized recreational use. The existing non-motorized recreational use trails would be enhanced by the construction of additional non-motorized trails under this proposed action. The trail easement and infrastructure would lend themselves to non-motorized recreational use. Some features of the trail, such as bridges, boardwalks, and the hard surfaces for American Disabilities Act (ADA) accessibility, would not be conducive to use by horses. This is especially likely to occur between the areas of Swift Creek, Lazy Creek and the bridge crossing the BNSF railroad.

Figure 9. Disc Golf Course



Legend

- Proposed Disc Golf Trailhead
- Proposed Bridge
- Existing Whitefish Trail
- Proposed Trails
- Licensed and Approved Disc Golf Course
- Proposed Recreation Use Easement

Figure 9
Disc Golf Course
Close the Loop Trail and Recreation Use Easements EA
Flathead County, Montana

Hunting

More people recreating in an area where hunting is the traditional use would be considered a conflict. Undoubtedly, hunters may choose not to hunt in an area with more hikers and bikers, and hikers and bikers may choose not to recreate in an area with active hunting. ~~It is not known how much of the current use noted in ***Table 7 Trail Usage January 2017 to December 2017*** can be attributed to hunting~~. A small portion of the 496,707 conservation licenses sold would have been used in the project area. However, hunting occurs in late fall (September to November) for the most popular seasons, not the June, July, and August season of maximum recreational use.

Snowmobiling

The facilities at the Swift Creek Trailhead are shared with the Flathead Snowmobile Association, however, the current trail use is lowest during January, and presumably continues to be low in December, February, and March, when snowmobiling is the primary use; therefore, it is expected that a conflict between these user groups would be low.

Disc Golf

A portion of the proposed new trail in the ~~Recreational Easement Area~~ ***Public Recreation Use Easement*** in Section 32 T32N R22W would be routed near the disc golf course at the head of Whitefish Lake between East Lakeshore Drive and West Smith Lake Road (Figure 9.). This trail is proposed non-motorized use, and it has a low risk of increased conflict between disc golf course users and hikers and bikers using the trail. The trail could improve access to the ***disc*** golf course for the players.

Although motorized use of the trails would be unavailable and territory conflicts with hunters are possible, the overall impact of the proposed plan would be positive and low to moderate.

Mitigations:

- Update and follow *Whitefish Trail Management and Operations* Plan or other relevant plans.
- ***The final location and design of the preliminary locations of the trailhead, additional parking, a pavilion and day use site, new trails, and five bridges as identified on Figure 1 would be finalized after consultation with DNRC managers and resource specialists.***
- ***The Smith Lake Pavilion and interpretive area would be located away from the dam and spillway of Smith Lake and a fence would be constructed along the perimeter of the outlet to protect the integrity of the earthen dam and prevent resource damage from dispersed use.***
- ***Update and follow the Smith Lake Dam Emergency Action Plan****.*

3.6.2.3 Cumulative Effects of the Proposed Action

Past and present recreational development (Trail Runs Through It/Whitefish Trail, Whitefish Trail - Beaver-Skyles Public Recreation Easement, Whitefish Trail - Phase III, Swift Creek) has increased the use in the area, both motorized and non-motorized. Other planned or proposed recreational developments and easements, such as the disc golf course, Lazy Creek Land Purchase, Phase I, II, and Taylor Hellroaring Project, would increase the overall use in the area and would further preserve recreational opportunities. An increasing population in Whitefish and the popularity of outdoor recreation would also increase use. Additional use would likely result in conflicts between motorized and non-motorized users, between hunters and other recreationists, and between pedestrian and bicycle use. Although motorized use of the trails would be unavailable and territory conflicts with hunters are possible, the overall impact of the proposed plan would be positive and low to moderate based on overall increased use of the proposed trails as described in the *Trail Runs Through It Master Plan.*

3.7 Safety

3.7.1 Existing Environment

The analysis area for recreation includes the Recreation Easement Area, the proposed Close the Loop Trail footprint, and the existing Whitefish Trail located in five subareas (Lion Mountain, Skyles Lake, Spencer Mountain, Beaver Lakes, and Swift Creek). The existing Whitefish Trail is about 40 miles long and includes eight trailheads.

3.7.1.1 Human Health

<u>Liability</u>

Under the Montana Recreational Use Statute (70-16-302 MCA), landowners are not liable for injuries caused by public recreational use except for injuries caused by willful or wanton misconduct. The MT DNRC is indemnified against any and all liability from the use of state lands resulting from general recreation. The use of the lands ***by the public*** are at their own risk. The State is held harmless from claims and lawsuits that may result from any and all damages or death to persons and or property that occur upon or about said land caused by or arising out of the use of the area.

Also, the City of Whitefish currently is the licensee and holder of an existing easement. The current license agreement requires the City of Whitefish to carry general liability insurance and list the MT DNRC as additionally insured.

<u>Trespass</u>

The proposed easement areas are near to housing developments and residences, which is part of the reason the area was identified for the trail and recreational easements. This proximity also means that there are private lands near the proposed

trail and recreational easements (Figure 1). Private property within a quarter mile of the Close the Loop Easement corridor is owned by eight different owners. The Public Recreation Use area is adjacent to private property on the southern, eastern, and northern boundary. DNRC land borders the western boundary, except a quarter mile on the southern end of the western boundary. The Close the Loop Trail would cross the BNSF railroad ***via a bridge***.

3.7.1.2 Wildlife

Generally, trash and garbage in the area is managed as “pack it in- pack it out” through signage. The existing trail system has bearproof trash cans at most trailheads that are regularly maintained by volunteers. The wildlife section of the EA describes the wildlife species that occur in the analysis area. Any wild animal can be dangerous to humans and many become habituated to human activities, which causes them to not fear humans and continue to occupy an area even if humans are present. The risk of danger to humans and their pets is low and includes the spread of disease, bites, or injury from attack. Bears (grizzly and black bears) are the most dangerous, although humans have been attacked by moose, deer, elk, and furbearers.

3.7.1.3 Fire

The Close the Loop Trail Easement Area and Public Recreation Use Easement Area are both entirely within the wildland urban interface ***(DNRC 2011)***, which designates that area where human structures and developments meet or intermingle with undeveloped wildlands that are subject to wildland fires. Humans, their structures, and activities are generally increasing in the wildland urban interface. Humans are the dominant disrupting force in the wildland urban interface, causing more fire ignitions, affecting the density of forest fuels, and changing the resources at risk from fire. Occasionally fires from discarded cigarettes have occurred within the project area (DNRC 2012). Currently, the license agreement for the Swift Creek trail requires the City of Whitefish to take all reasonable precautions to prevent and suppress wildland fires and to accept full responsibility, financial and otherwise, for fires resulting from trail-maintenance activities or for fires caused by licensee's negligent or willful misconduct. Signage is required at trailheads to inform users about trail use safety. The disc golf licensee is required to provide signage on fire prevention.

3.7.1.4 Traffic

Access to the proposed Public Recreation Use Easement and a portion of the Close the Loop Trail Easement would be via East Lakeshore Drive and the Delrey Road on the east side of Whitefish Lake ***or by using Highway 93 North and the Beaver Lake County Road to access the west side***.

East Lakeshore Drive turns into Delrey Road just west of the Recreational Use Easement boundary. East Lakeshore Drive and Delrey Road are both county-maintained roads. The Delrey Road provides access to the existing Swift Creek

trailhead and trail system ***as well as a Flathead Snowmobile trailhead and trail system***. Delrey Road is also the main access for residences and private property on the north end of Whitefish Lake. ***East Lakeshore Drive was built in 1917 and at that time it was deeded and declared a county road. The road does not meet current new road building standards. At this time, Flathead County does not have plans or funding to improve or change the road. They manage the road mainly for drainage and sloughing as wet springs and erosion are the biggest concerns (Dave Prunty, Flathead County Public Works Director).***

County road standards are based on the volume of traffic which uses the road. The last vehicle count performed by the County on East Lakeshore Drive was in 2008. In this study, traffic counts indicated 749 vehicles per day on East Lakeshore Drive (https://flathead.mt.gov/roads_bridges/documents/Traffic_Counts_2008.pdf). Use would have to increase to 4,000 vehicles per day before the County would consider painting a centerline, which would be required if the traffic increased to 6,000 vehicles per day. ***At this time, the County's assumption is that the lack of steady traffic on the road would not bring the numbers close to these triggers.***

From the west, access to the general area of the Close the Loop Trail Easement is from U.S. Highway 93 and then Beaver Lake Road and other State forest roads. Beaver Lake Road ***is a county road that*** provides access to the existing Beaver Lakes trailhead and trail system and the Beaver Lakes Public Recreation Use Easement Area. The Beaver Lake Road also currently provides access to residences and private property northeast of the City of Whitefish. ~~All access roads in the area currently receive a moderate amount of local traffic.~~ ***Due to dust that is generated on this gravel road during the late spring, summer and early fall, the private residents and the City of Whitefish participate in the County's dust abatement program each year to manage dust on the Beaver Lake Road.***

3.7.2 Environmental Effects

3.7.2.1 No Action – Direct and Indirect Effects

The ***analysis*** area is a ~~recreational area~~ currently ***used recreational area***, and it is likely use would continue to increase as a result of development of the disc golf course, the increasing population of Whitefish, and people becoming familiar with the existing trail systems and using ~~it~~ ***them***. The increase in use under the No Action alternative would increase the potential for wildlife and human interactions, wildland fires started by people and vehicles, traffic (motorized and non-motorized) and traffic accidents, and trespassing.

3.7.2.2 Proposed Action – Direct and Indirect Effects

3.7.2.2.1 Human Health

Liability

There would be a moderate increase in human use of the Close the Loop Trail and Recreational Use Easement Areas with development of facilities and the trail system and associated promotion. Because of the limited liability established by statute, the increased human use would result in no increase in liability for the State or the City of Whitefish.

Pedestrian safety would be increased where the proposed bridge over the BNSF rail line could increase safety for users who are currently, illegally crossing the tracks near Boyle Lake.

Trespass

Three private land parcels are within 300 feet of the proposed Close the Loop Trail Easement Area. The remaining five parcels are more than 500 feet away. One landowner has land directly adjacent to the Recreational Easement Area. The risk of trespassing is low, although slightly increased over the No Action alternative based on the new trail location. Should use on the trail increase significantly, adjacent landowners that use their property regularly may feel a loss of security if they can frequently hear trail users. At this time, there are no residences close to the proposed trail location.

~~With the moderate increase in human use of the Close the Loop Trail and Public Recreation Use Easement Areas, there would be a negligible to low likelihood of trespassing on private ground other than the property owned by BNSF railroad, where the likelihood would be low to moderate.~~

Mitigations:

- ***The City of Whitefish in conjunction with WLP would install signage, in appropriate locations if necessary, that indicates nearby private property and encourages trail users to stay on the established Whitefish Trail corridor.***

3.7.2.2.2 Wildlife

The moderate increase in human use (including litter and other attractants) would increase dangerous wildlife and human interactions. Wildlife may become habituated to the presence of humans and associated availability of food (see Section 3.4.2). Human habitation is most dangerous for the animals (see the Wildlife section) but can also pose a danger to humans. Although extremely rare, grizzly bears and black bears will attack humans or dogs when defending their young or food sources or when startled. Mountain bikers are disproportionally at risk for encounters with bears ***and other potentially dangerous wildlife*** because of the speed of travel, attention to the trail, and quietness,

compared with hikers and walkers (Marion and Wimpey 2007). The *Whitefish Trail Management and Operations Plan*, specifies wildlife related safety measures that would be followed for all new trails. Trail users frequently leave the trail. The distance off-trail hikers and bikers would travel depends on the vegetation and terrain immediately adjacent to the trail and their purpose for leaving the trail. The negative impact for human safety around wildlife would be low ~~to moderate~~.

Mitigations: See mitigations for Grizzly Bears.

3.7.2.2.3 Fire

The potential for human caused fires during recreational use is limited because no overnight camping and thus no campfires would be allowed at trailheads or along trail corridors, although this prohibition is difficult to enforce and of moderate effectiveness. Smoking and vehicles parking in dry grass during high or extreme fire danger is a frequent cause of fire ignitions in Montana, which happens to coincide with the summer when recreational use is highest. ~~Human fire ignitions could increase slightly~~ ***There would be a low increase in human caused fire ignitions*** with increased use of the area.

Mitigations:

- ***Signage would be required at trailheads to inform users about trail use safety and fire prevention.***

3.7.2.2.4 Traffic

It is expected that traffic would see a moderate increase in the area as people access the trailheads. ***How much traffic would increase depends on the public gaining knowledge of the area, quality of the experience, and availability of areas providing similar access nearby.***

Currently, the Whitefish Trail consists of 10 trailheads and 36 miles of natural surface trail surrounding the greater Whitefish area allowing for dispersed use of the current trail system. In theory, development of the Connect the Loop trail system under this proposal would increase the number of trailheads and miles of trail, allowing for broader dispersed use. ~~The increased traffic on Delrey Road, East Lakeshore Drive, and Beaver Lake Road may be disproportionally or slightly higher than overall use as people may be dropped off at one end of the trails system and picked up on the other.~~ ***Furthermore, if built, the proposed Whitefish Trail segments being analyzed under the Forest Service's Taylor Hellroaring Project would provide an alternative access to Swift Creek and Smith Lake via a trail system that would connect from the base of Whitefish Mountain Resort***. This would help to disperse use and traffic between all the trailheads. ~~Distracted driving is a serious problem in Montana, and any additional vehicle traffic would likely lead to a slight increase in traffic~~

~~accidents. Local traffic would be slower than highway traffic, though, and an increase in fatal or serious injury accidents is not predicted.~~

Mitigations:

- ***Starting in 2019, DNRC would participate with the City of Whitefish and the County in collecting and monitoring traffic count data at main trailheads. Data would be shared with our partners and would be utilized in updating traffic management to relevant plans.***
- Update and follow *Whitefish Trail Management and Operations Plan* or other relevant plans.

3.7.2.3 Cumulative Effects of the Proposed Action

Cumulative threats to human safety and traffic safety would see a moderate increase as more people use the area due to other developments and increased popularity. Wildlife use may see a minor decrease at the same time, limiting the overall cumulative ~~impacts~~ ***effects*** to the human safety. The potential for human-caused fires and trespassing is only slightly increased by the Proposed Action, and additional increases in the potential due to other developments or increasing use not associated with the trail and easement is ~~also slight~~ ***low***.

3.8 Economics *(this section has been completely rewritten, but is not shown in bold italics)*

3.8.1 Existing Environment

The State of Montana requires DNRC to rely, in part, on economic criteria to evaluate the sale of an easement. The DNRC Trust Land Management Division manages Montana's trust land resources to produce revenue for trust beneficiaries, while considering environmental factors and protecting the future income-generating capacity of the land. This economic analysis provides information that evaluate the economic factors relevant to its decision to grant a deed for Close the Loop Trail, Public Recreation Use, and Swift Creek Trail license conversion Easements to the City of Whitefish.

Currently, revenue is generated for the various trust beneficiaries from timber harvest activities, easement grants and other miscellaneous licenses and permits. The trusts that benefit from the project area are; State Normal School (Dillon/Billings), MSU 2nd Grant (MSU-Bozeman), MSU Morrill (MSU-Bozeman), School for Deaf and Blind (Great Falls) and School of Mines (Butte).

The area within or near the project area also generates revenue by providing developed recreation opportunities. A network of the Whitefish Trail currently exists in the Beaver Lake area and Swift Creek area. The Beaver Lake trail is authorized under the Beaver Lakes Area Public Recreation Use Easement while the Swift Creek Trail is authorized

under a Land Use License that includes management for the Swift Creek and Lupfer sections of the Whitefish Trail. In addition, the DNRC issues Land Use Licenses for a disc golf course, groomed snowmobile trails, and Special Recreational Use Licenses (SRUL) for guided biking and hiking.

Table 8 reflects revenues generated from the issuance of LULs and SRULs for developed recreation in the project area for calendar years 2014-2018.

Table 8. Annual Revenue for Recreation Based Licenses

License	2014	2015	2016	2017	2018	Total
Licensed Swift Creek portion of the Whitefish Trail[1]	$3,327.63	$3,327.63	$3,327.63	$3,327.63	$3,327.63	**$16,638.15**
Disc Golf LUL	N/A	N/A	N/A	N/A	$1,500.00	**$1,500.00**
Snowmobile Trail LUL	$200.00	$200.00	$200.00	$200.00	$200.00	**$1,000.00**
Misc. SRUL's	$350.00	$350.00	$350.00	$300.00	$300.00	**$1,650.00**
Total	**$3,877.63**	**$3,877.63**	**$3,877.63**	**$3,827.63**	**$5,327.63**	**$20,788.15**

[1] Revenue for the existing Lupfer trail and trailhead has not been included in revenue amount as it is outside the project area.

Individuals and families who use state lands for dispersed recreation are required to obtain a General Recreational Use license. Montana Fish Wildlife & Parks (MFWP) sells the licenses through authorized dealers for $10 per year for an individual license and $20 per year for a family license. MFWP's conservation licenses, required for hunting and fishing, also generate $2 per license for state trust lands. The revenue from these licenses is collected state-wide; thus, this source of revenue is not tied specifically to the parcels, and typically amounts to approximately 0.21 cents per acre for the associated trusts (The Cilly Cliffs Multiple Timber Sale Project EIS, DNRC 2014).

Finally, the proposed easement area is part of the Swift Creek and Beaver/Skyles Subareas of the Whitefish Neighborhood Plan. Specific concepts and implementation strategies from these two subareas apply to the proposed easement areas. Namely, the goals of these two subareas is to enhance developed recreation with a multi-use trail system while generating revenue opportunities through conservation-buyers to protect the land from future residential/commercial development.

Using the 3-tiered conservation-buyer strategy, a series of transactions could be assembled to protect the majority of Swift Creek Sub-Area. These strategies would allow a total of six homes to be built in concert with conservation easements to protect the remaining lands from future development.

3.8.2 Environmental Effects

3.8.2.1 No Action – Direct and Indirect Effects

If the no action alternative was chosen, the project area would continue to generate revenue for the various trust beneficiaries from timber harvest activities, developed

recreation, easement grants and other miscellaneous licenses and permits. The Swift Creek Trail would not convert to an easement but would continue to be authorized under the existing LUL and continue to generate annual revenue for Montana State University Second Grant and Morrill Grant school trusts.

Individuals and families who purchase a ***General Recreational Use*** license for recreation in the project area would likely remain unchanged and the revenue from the use would continue to be negligible per acre for the associated trusts.

3.8.2.2 Proposed Action – Direct and Indirect Effects

Under this alternative, the proponent could apply for and purchase an easement to construct and maintain the Close the Loop trails, purchase a Recreation Use Easement for 480 acres surrounding Smith Lake, and convert the existing Swift Creek Trail LUL to a permanent easement.

Forest Management

Even with the Recreation Use Easement in place, these lands would continue to generate revenue for the various trust beneficiaries from timber harvest activities on a rotational schedule spanning multiple decades. This revenue would also include commercial and general firewood permits. The proposed action would likely have a slight increase in costs and time due to coordinating and implementing timber sales within or adjacent to the enlarged recreational trail system.

The land within the 16-foot corridor around trails, trailheads, parking lots, and other planned recreation facilities totals 28.4 acres, and timber rights associated with those acres would be purchased by the proponent under the easement. The management of the timber within the corridor (28.4 acres) would be transferred to the proponent, and the proponent would be required to compensate the school trust for the existing timber value.

The average board foot per acre on the Stillwater Unit is about 8 MBF/acre. In monetary terms, assuming an average price of $136.00 per thousand board feet (MBF) ***(DNRC 2017b)***, the total timber value of the current stock of timber within the existing and proposed 16-foot corridors, trailheads and parking lots is about $30,898. Table 9 shows this breakdown in detail.

Table 9. Timber Values for Trail Corridors

Easement Area	***Acres***	***Miles***	***Trail Corridor Timber Value***
New Trails within Public Recreation Easement	10.4[1]	3.8	$11,315
Existing Swift Creek Trail within the Public Recreation Easement	1.3	0.6	$1,414
New Trails within Close the Loop	11.3	5.9	$12,294
Existing Swift Creek Trail within Close the Loop	5.9[2]	2.8	$5,875
TOTAL	**28.4**	**13.1**	**$30,898**

[1] Acreage includes the trail corridor plus 3 acres for existing and proposed trailheads and day use area.
[2] Acreage includes the trail corridor plus 0.5 acres for the existing trailhead.

General Recreation Use Licenses

In addition to the revenue from the easements and timber harvesting, ***Montana residents*** and out-of-state visitors using trust land for dispersed recreation would still be required to obtain a General Recreation Use License from MFWP when recreating beyond ***the 16-foot*** trail corridors. The amount of revenue depends on the number of licenses sold, so if the Public Recreation Use Easement and planned facility improvements increase the total use of the lands for recreation (without drawing people away from other trust lands in Montana), the total amount collected and distributed to trust accounts could increase with the easement.

Trail Corridors and Trailheads: Close the Loop Easement and Swift Creek LUL Conversion

The granting of trail easements for the 16-foot corridor, trailheads and parking areas are reimbursed to the state at 100 percent of the current full market value. Thus, the estimated return to the state for the proposed trail corridors and trailheads would be between $184,600 to $284,000 for the 28.4 acres encumbered, plus the value of timber rights conveyed.

It also should be noted that the existing Swift Creek trail and associated trailhead would no longer be managed under a Land Use License but would be encumbered under the easement (see Table 10). Thus, this portion of trail would no longer provide revenue in the form of annual license fees.

Public Recreation Use Easement

In addition, a Public Recreation Use Easement similar to the existing Beaver Lakes Recreation Use Easement would be purchased on 480 acres surrounding Smith Lake which would allow continued forest management, recreation, easement grants and other miscellaneous licenses and permits. The easement would specify that timber

production would continue but would limit some of the other uses of the land that DNRC may exercise, including the right to subdivide, development into homesites, and granting exclusive leases for other uses.

It is expected that the Public Recreation Use Easement would not likely reduce harvest frequency or volume. The easement would include provisions for the grantee to compensate DNRC should additional planning requirements or other restrictions arise which affect forest management.

Easement restrictions imposed on DNRC's use of the land under the Public Recreation Use Easement are anticipated to reduce the value of that land. Based on the certified appraisal analysis and the easement restrictions in the purchase of the Beaver-Skyles Public Recreation Use Easement, encumbered land value was reduced by approximately 66% of market value. Table 10 estimates the value of the proposed Public Recreation Use Easement, based on the previous appraisal analysis. The actual value of the proposed easements would be determined through certified appraisal specific to this project.

Table 10. Estimated Easement Value

Estimated Land Value of 480 acres [1]	*Estimated Value of Recreation Use Easement on ~480 acres*	*Estimated Easement Value for Trail Corridors on 28.4 acres*	*Total Estimated Easement Value paid to State*	*Estimated Average Interest Generated from Permanent Fund*
$3,120,000 to $4,800,000	$2,059,200 to $3,168,000	$184,600 to $284,000	$2,243,800 to $3,452,000	*$89,752 to $138,080*

[1] Estimated land values for this analysis for large acre parcels are based on current DNRC Road Easements and Land Use License values in or near the project area. If an easement is granted, the DNRC would hire, at the City of Whitefish's expense, a certified appraiser to determine full market value for the land encumbered under the easements.

If DNRC grants the easements, the proceeds from the sale would be invested in the Permanent Fund and would become an annual source of revenue for the trusts. The Montana Board of Investments oversees the management of the Permanent Fund. Permanent Funds shall remain inviolate and guaranteed by the State Constitution against loss of diversion and are often referred to as "non-distributable".

In 2018, the Permanent Fund had a balance of $674,986,252. ***The average annual interest rate earned from the Permanent Fund is 4%.*** About 95 percent of the annual interest generated from Permanent Fund investments becomes distributable revenue for the trusts while the remaining 5 percent is reinvested in the Permanent Fund. Since 5 percent of the interest each year is reinvested in the Permanent Fund, the principal would grow over time, increasing the annual payment to the trusts on average each year.

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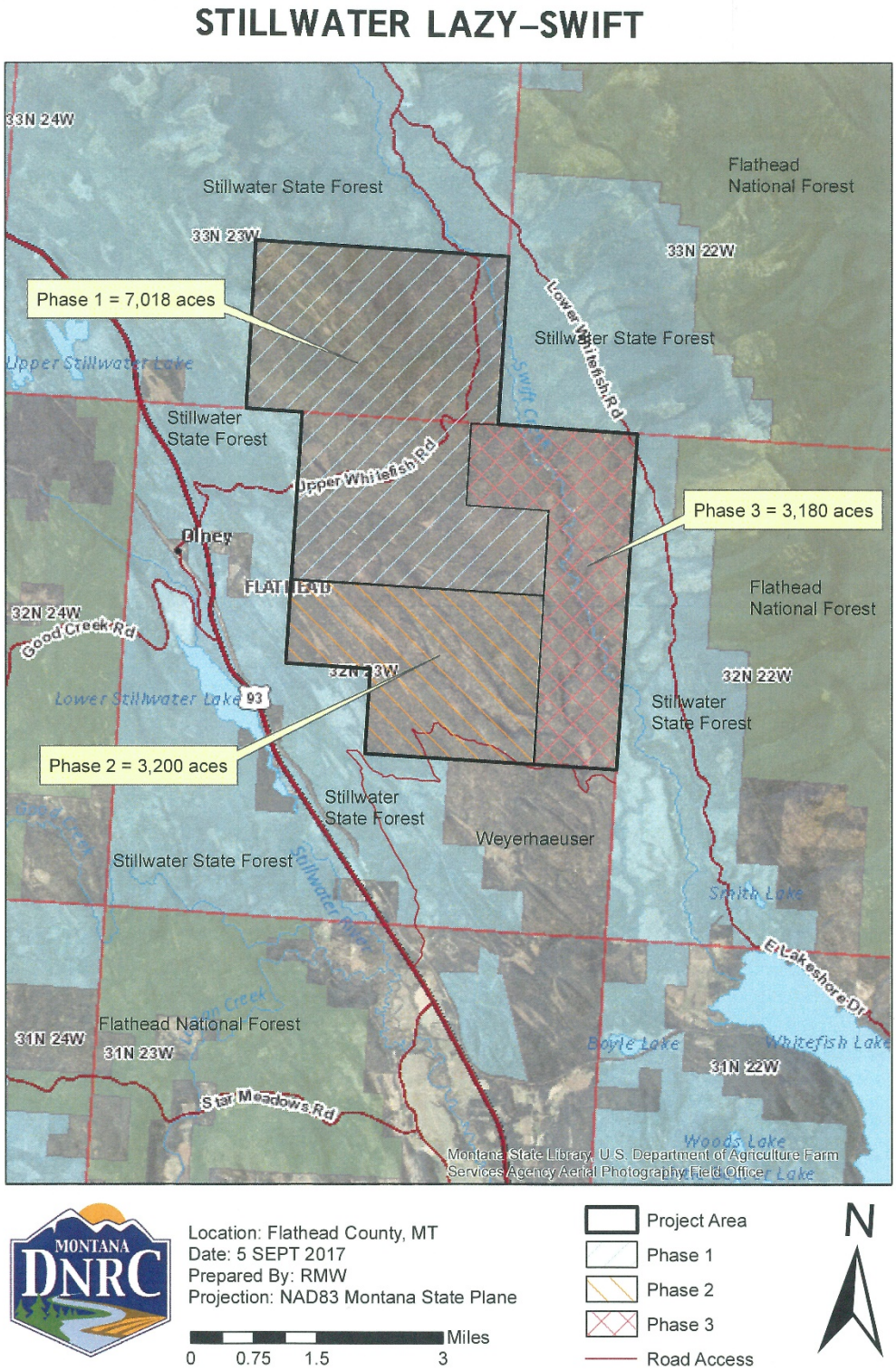
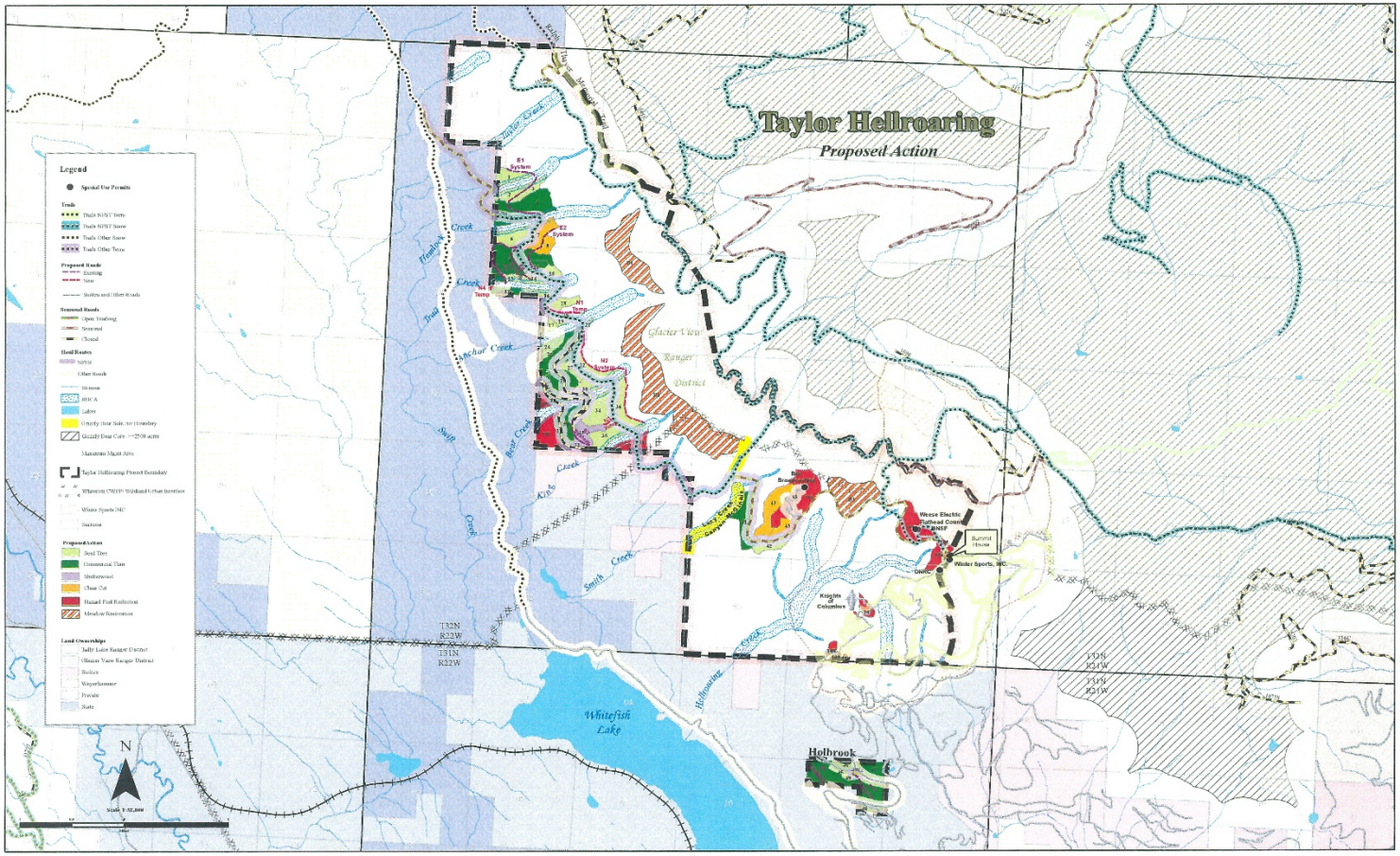
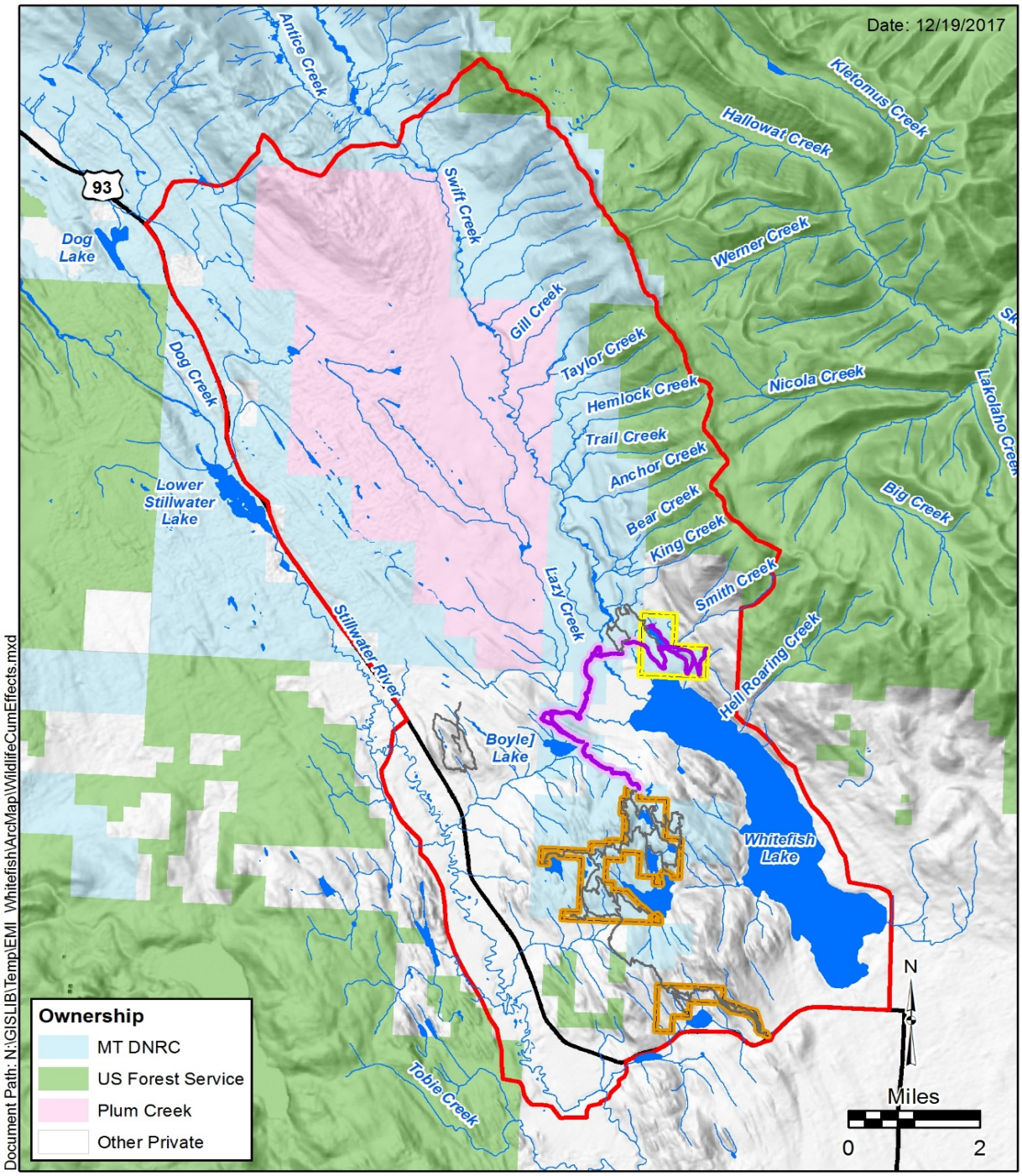
Appendix A – Lazy Creek Land Purchase and Taylor Hellroaring Maps




Taylor Hellroaring
Proposed Action
Legend
Special Use Permits
Trails
Proposed Roads
Seasonal Roads
Hoal Routes
Proposed Action
Land Ownerships
Glacier View Ranger District
Whitefish Lake
Holbrook
Taylor Creek
Hemlock Creek
Trail Creek
Anchor Creek
Swift Creek
Bear Creek
King Creek
Smith Creek
Hellroaring Creek
Wease Electric Flathead Coop
Summit House
Winter Sports, INC.
Knights of Columbus
T32N R22W
T31N R22W
T31N R21W
N

Appendix B – Large Cumulative Effects Analysis Area

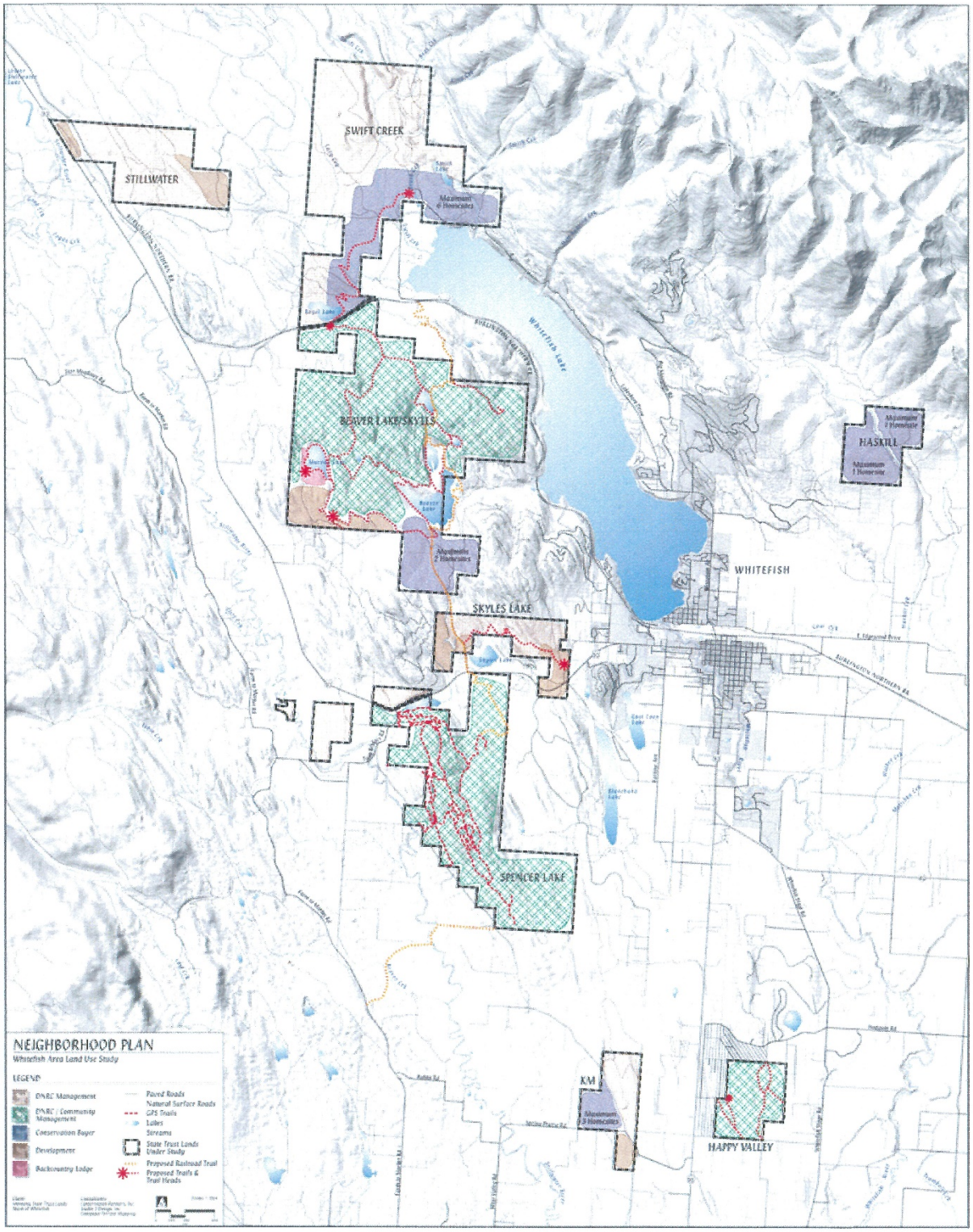


Legend

- Existing Trail
- Proposed Trail
- Recreation Use Easement
- Proposed Close the Loop Trail Easement (16-foot Corridor exaggerated for display purposes)
- Existing Trail Easement
- Wildlife Cumulative Effects Analysis Area

Wildlife Cumulative Effects
Close the Loop Trail and Recreation Use Easements EA
Flathead County, Montana

Appendix C – Trail Runs Through It Master Plan Map



Appendix D - Response to Comments

Public Comment Received on the Close the Loop EA

65 support comments, 60 open letter signatures and 16 individual comments were received on the Close the Loop Environmental Assessment (EA) dated March 2018. The names of those that submitted support comments and open letters are provided in Tables 1 and 2 at the end of this appendix. Letters were analyzed by the Interdisciplinary Team and the Decision-Maker to identify substantive comment; this appendix includes a compendium of substantive comments and corresponding responses prepared by the team and the decision maker. The comments and responses have been organized according to comment subject matter. Where similar comments were received, a single response was provided to cover that particular issue. Individual commenter names are provided at the end of each comment.

Alternative Development

1. **Comment:** In support of closing the loop but believe that the Delrey Road option should be re-evaluated to mitigate the conflict between humans and wildlife as well as to prevent having to build boardwalk in a wetland area. [David Fern, Jan Metzmaker, Donald Stolte, Amy Robinson, Headwaters MT, Steve Thompson, Charles Overcast, Mike Shaw]

Response: Utilizing Delrey Road to "Close the Loop" was not analyzed under this proposal since the Purpose and Need (section 1 of the EA) for this project was specifically to construct trail across state lands. Delrey Road is a county road under the jurisdiction of Flathead County and is therefore outside the scope of this project. For Delrey Road to be considered as an alternative, the City of Whitefish in conjunction with WLP would need to submit a separate proposal to the Flathead County for consideration.

This proposal does analyze the effects of human-wildlife conflicts and the construction of boardwalk in wetland areas. The inclusion of boardwalks for trails over the wetlands would minimize impacts to the wetland characteristics and habitats provided by the hydric soils, wetland hydrology, and hydrophytic vegetation. See section 3.3.2.2 for details. In reference to human-wildlife encounters, the proposed action would increase the risk of negative encounters because additional trails would be constructed through occupied habitat. Mitigations to reduce human-wildlife encounters include: remove or impede access to attractants; provide public education and signage discussing bear presence and appropriate behavior while using trails in bear habitat; design trail to reduce the risk of bear encounters; annual maintenance that reduces or removes understory vegetation within the trail corridor to increase site distances; seasonal or temporary trail closures, particularly during the spring period. See section 3.4.2.2 for details.

2. **Comment:** The Final EA should evaluate both a "Ribbon" and "No Ribbon" alternative, and the effects of each alternative should be thoroughly discussed and disclosed to the public. [Headwaters MT]

Response: Although the effects of a Close the Loop Trail Easement (ribbon) and Public Recreation Use Easement (480 acres) were not analyzed separately, the separate effects of each were considered as part of the decision notice. The City of Whitefish in conjunction with WLP would still need to submit separate applications to DNRC for the proposed easements. Once approved by the DNRC, the easements would be submitted to the Land Board. The Land Board would make the final determination as to whether the State would grant the Close the Loop Trail Easement or the Public Recreation Use Easement or both.

3. **Comment:** Assessment of only one alternative does not allow the best choice to be made to meet the objective of a trail that "closes the loop" and limits the costs to humans, wildlife, plants, water, fisheries, etc. [Marie Russell-Shaw]

Response: The Environmental Assessment (EA) discloses the effects of the proposed Close the Loop Trail Easement and Public Recreation Use Easement as proposed by the City of Whitefish, acting in conjunction with Whitefish Legacy Partners. The EA analyzes the effects of both an Action and No Action alternative. Section 2.3 of the EA discusses the alternative that was considered but dismissed from further analysis. The No Action alternative was used as an environmental baseline to compare the effects of the proposed action and can be considered as part of the decision. The EA is used to provide the decision maker, in this case the Stillwater Unit Manager, sufficient information to make an informed, reasoned decision concerning the proposal.

Table 1 (starting on pg. 10) in the document outlines the concerns that were brought up during the initial scoping period, the issue statements that were developed and where in the document you can find the resources/issues discussed. Each resource (economics, hydrology, wildlife, vegetation, etc.) potentially affected by the proposal is analyzed separately within the document. The existing environment is analyzed and researched to determine what the effects of the proposal would have on each resource.

Hydrology and Soils

4. **Comment:** Concerns about the environmental balance of the wetlands that should be protected, would like to deny the proposed bridges across Lazy Creek and Swift Creek. [Elsa Putzier, Jan Metzmaker, Marie Russell-Shaw]

Response: As stated in Section 1.1, the Proposed Action would include constructing boardwalks over wetlands crossed by the proposed trail. Section 3.3.1 Existing Environment – Wetlands in the EA states the 1) wetlands in the proposed trail area would be delineated prior to the final trail alignment, 2) a Nationwide Permit from the United States Army Corp of Engineers (USACE) could be used for the creek crossings, and 3) the proposed trail would cross wetlands around Lazy and Swift Creek. Excerpts from Section 3.3.1 Existing Environment – Wetlands in the EA are provided below (with highlights added):

The wetlands in the Close the Loop Trail analysis area have not been field-delineated or surveyed but were mapped using historical wetland data and aerial photographs. The wetlands and waters of the U.S. would be delineated using standard USACE procedures, and the delineation boundaries surveyed before the final alignment of the trail is decided.

(USACE) issues Nationwide Permits for commonly occurring work in wetlands such as construction and maintenance of utility lines, pipelines, bank stabilization projects, and more than 50 other named work types (USACE 2017). The Nationwide Permit No. 42 specifically addresses construction of recreational facilities and states:

> *NWP 42. Recreational Facilities. Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of recreational facilities. Examples of recreational facilities that may be authorized by this NWP include playing fields (e.g., football fields, baseball fields), basketball courts, tennis courts, hiking trails, bike paths, golf courses, ski areas, horse paths, nature centers, and campgrounds (excluding recreational vehicle parks). This NWP also authorizes the construction or expansion of small support facilities, such as maintenance and storage buildings and stables that are directly related to the recreational activity, but it does not authorize the construction of hotels, restaurants, racetracks, stadiums, arenas, or similar facilities.*

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300-linear foot limit by making a written determination concluding that the discharge would result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (Authority: Section 404).

… The area of wetlands encountered by the Close the Loop Trail totals 0.25 acre, which would allow this project to be completed under a Nationwide Permit 42, unless field delineation of wetlands identifies additional wetlands that exceed the 0.5-acre threshold.

Section 3.3.1 Existing Environment – Wetlands of the EA states:

The inclusion of boardwalks for trails over the wetlands would minimize impacts to the wetland characteristics and habitats provided by the hydric soils, wetland hydrology, and hydrophytic vegetation. Construction equipment crossing existing wetlands would negatively affect the wetlands functions from compaction by equipment and storm runoff from impacted soils into wetlands during construction. The wetland areas associated with Swift and Lazy Creeks are susceptible to compaction and erosion and sedimentation due to concentrated off-trail recreational use near these water crossings. Impacts to wetlands and waters of the U.S. from the Close the Loop Trail would be low with implementation of BMPs during construction and with mitigations.

In addition to building boardwalks over the delineated wetland areas, the EA notes that impacts to wetlands during construction would be low with the following mitigations specified in the EA: *"Construction Mats or equivalent" must be installed in the wetland for the construction equipment to travel across. The mats are installed directly in the wetland with the large surface area preventing the mat from sinking when the construction equipment is driven over them. When work is complete, the mats are removed from the wetland. The trail easement would be 16 feet wide but would have some flexibility to move to avoid certain areas such as wetlands. Bridge and trail construction should occur during times of historically low precipitation. Added soft and natural landscaping practices (emplaced trees, rocks, etc.) at water crossings would help keep hikers on the trail. The final 16-foot Close the Loop Trail Easement corridor could be slightly relocated to avoid some wetlands. Construction BMPs to limit off-site sedimentation during construction would be implemented.*

5. **Comment:** Concerned that construction of a bridge over Lazy Creek will create sedimentation in Lazy Creek. How will the sediment disturbed by bridge building activities be mitigated? What will the effects of the sedimentation be to the creek bed downstream? How will this affect the fishery? How will any adverse effects be rectified? [Marie Russell-Shaw]

Response: Section 3.3.2 Proposed Action – Stream Channel Characteristics of the EA states: *Constructing the pedestrian bridges across Swift Creek and Lazy Creek would have a negligible risk of changing the existing hydrologic regime in these streams. The volume of water generated within the Swift Creek and Lazy Creek watersheds would not change because of the bridge installation.*

Impacts to the stream channel characteristics in the stream sections upstream and downstream of the proposed bridge locations would be determined by the placement of the abutments and

piers on the banks in the active stream channel, within the bank full flow channel, or within the 100-year floodplain.

Bridge abutments or piers installed along the edge of the active stream channels would have a major risk of changing the local channel hydraulic characteristics but would depend on the velocity and duration of flood flows. These changes would include increased bank scour upstream and downstream of the abutment and increased channel bed erosion along the toe of the abutment. All material eroded from the banks and channel bed would be transported downstream and modify the channel and bank habitat features.

Bridge abutments or piers installed out of the active channel but within the 100-year floodplain would have a low to moderate risk of changing the local channel hydraulic characteristics. Severity of the impact on the local channel hydraulic characteristics would depend on the velocity and duration of flood flows around the base of the abutment. If velocities are large enough and last long enough, scour around the base of the abutment would undermine the stability of the abutment.

Bridge abutments or piers installed out of the 100-year floodplain would have a negligible to low risk of changing the local channel hydraulic characteristics. Any impacts to the local channel hydraulic characteristics would require flood flows extending beyond the predetermined 100-year floodplain delineation. However, since the edge of the 100-year floodplain is a considerable distance vertically and/or horizontally from the active channel, the likelihood of changes to the local hydraulic characteristics would be negligible…

…Equipment used to construct the Swift Creek and Lazy Creek pedestrian bridges would have to cross one of the stream channels to prepare abutment sites, install abutments, prepare pier sites and install bridges. Depending on the location, crossing Swift Creek would have a low to moderate impact. If Swift Creek were forded during construction, impacts to the creek would be moderate. Along the trail route and at the bridge site (more so for Swift and Lazy Creeks) impacts during bridge construction would be moderate but with the implementation of mitigation measures would be low to negligible once construction was completed.

The mitigations listed in the EA include: *Carefully choose stream crossing locations for construction equipment to minimize impacts to the stream banks, floodplains, and active stream channel. Low gradient banks would be the preferred access route to minimize bank disturbance. Densely vegetated floodplains are the preferred access route with alders and willows as the knocked down vegetation would prevent direct contact of the construction equipment with the floodplain. Shallow riffles are the preferred channel crossing locations as the substrate is typically larger with low slope gravel bars typically leading into and out of the riffle. Clean equipment tracks and tires before channel crossings to reduce increased short-term turbidity.*

To eliminate many stream crossings impacts at the bridge sites, if possible, the existing bridge infrastructure remaining at Lazy Creek that provided access to the timber sale between the proposed Swift Creek and Lazy Creek bridge sites could be used to build a temporary bridge to move construction equipment across Lazy Creek. Once the Swift and Lazy Creeks bridges were installed, the temporary bridge would be removed.

Section 3.4.2.2 Proposed Action – Direct and indirect Effects – Fish of the draft EA has been edited to now read: …*Bridge construction may necessitate crossing the active Swift Creek stream channel by the construction equipment which would potentially increase turbidity in the stream.*

Short term impacts to the channel habitat features would have a low to moderate risk of occurrence when mitigation measures are implemented during equipment crossing the stream. Once construction was completed, channel habitat features would naturally return to pre-

construction conditions and with the implementation of mitigation measures, the proposed action would have low adverse direct and indirect effects to fish.

Mitigations: See mitigations in Section 3.3.2.2 – Stream Channel Characteristics at Proposed Stream Crossings. During construction, implement construction site sediment and erosion control BMPs. Install signage discouraging off-trail use. The City of Whitefish and WLP work with DNRC and other agencies on management of the trail corridors.

To address construction impacts (including sedimentation) to fish the following mitigations have been added to Section 3.4.2.2 Proposed Action – Direct and indirect Effects – Fish of the draft EA. …*During construction, implement construction site sediment and erosion control BMPs. Install signage discouraging off-trail use. The City of Whitefish and WLP work with DNRC and other agencies on management of the trail corridors.*

6. **Comment:** This project will produce an increased sediment load to the water resources in the project area, especially during construction. Sediment loading in Lazy Creek would likely be long term. It seems that this would become an irretrievable impact to the stream. [Mike Shaw]

Response: See construction impacts response above. In addition, the Proposed Action's long term sediment loading impact to Lazy Creek is addressed in Section 3.3.2.2 Proposed Action – Direct and indirect Effects – Stream Channel Characteristics of the draft EA: …*Impacts to the stream channel characteristics in the stream sections upstream and downstream of the proposed bridge locations would be determined by the placement of the abutments and piers on the banks in the active stream channel, within the bank full flow channel, or within the 100-year floodplain…*

To address this impact the following mitigations are listed at the end of this section: *During the preliminary design phase, channel floodplain features would be field verified to define the bank full flow channel widths and 100-year floodplain extents. Place bridge abutments on banks or terraces above or outside the 100-year floodplain. Install abutments in a stable stream reach that is not currently undergoing lateral migration of the primary stream channel. Install piers on an intermediate bank above or outside the bank full flow channel but can be within the 100-year floodplain. Maintain vegetation on the intermediate bank surrounding the pier at the current or higher density. Vegetation on the floodplains creates roughness and slows water velocities to levels that minimizes erosion and scour around the base of the pier…*

Economics

7. **Comment:** Construction and maintenance of the various bridges and boardwalks will be costly and the long-term upkeep could be a burden for users and the City of Whitefish. [Joel Vignere, Open Letter, Gil Jordan and Kimberly Pinter]

Response: The City of Whitefish nor the users of the Whitefish Trail are burdened with the cost of easement purchases and construction/maintenance costs. DNRC policy requires that conservation easements purchased from the state be held by a public entity. The City of Whitefish and WLP have a Memorandum of Understanding (MOU) that outlines the purpose and responsibilities as it relates to the Whitefish Neighborhood Plan and the Whitefish Trail. The City's primary contribution to Whitefish Trail projects is in the form of legal status as a municipality under Montana Law, time, non-financial resources and the professional talents of its staff. WLP is responsible for all fundraising. In 2008, 3 separate 1 million-dollar contributions were donated to achieve the objectives of trail construction and maintenance and acquiring conservation easements. The Whitefish Trail System Support Fund is an endowed fund with the purpose of providing a permanent annual revenue stream to support operations, maintenance and management. In 2017, WLP contributed $21,798 and the community donors

gave $7,276 to the Whitefish Trail Endowment Fund bringing the total value over $1 million (WLP 2017 Annual Community Report).

8. **Comment:** DNRC should further quantify the economics section to estimate the value of the easement as an annual source of revenue for the school trust beneficiaries. [Whitefish Legacy Partners]

Response: The Final EA was amended to include an additional column in Table 10 that estimates the average annual income generated from Permanent Fund from the granting of the proposed easements. About 95 percent of the annual interest generated from Permanent Fund investments becomes distributable revenue for the trusts while the remaining 5 percent is reinvested back into the Permanent Fund.

9. **Comment:** Many moderate effects on wildlife, soils and plant species indicated in the EA depend on mitigating actions, such as limiting interactions between dogs and wildlife, keeping users on the trail, and not allowing motorized use. How will these mitigating actions be enforced? What will be the cost of adequate enforcement? [Marie Russel-Shaw]

Response: Mitigations that require site specific project oversight such as the use of BMP's, trail construction and design standards, etc. are straightforward and more easily enforced by project managers. Mitigations that require voluntary compliance by trail users are not so easily enforceable and can be challenging. Some mitigations for user compliance would be more enforceable such as gate installations for seasonal trail closures. Dogs on leash would be a requirement for the segment of trail near Boyle Lake and between Lazy and Swift Creek. Signage and outreach education would be a required component of informing the public about trail rules and etiquette. Signs would be installed that encourage users to stay on the trail. It is not required; however, that a user stay on the trail. Dispersed general use is allowed on DNRC lands. All existing Whitefish Trail is nonmotorized use. Some e-bikes have been reported using the existing trail system. The trail system is currently patrolled by volunteers who collect data, provide education, and aid when needed. The volunteers also inform users of the rules that apply to the trail system including dogs on leash and the exclusion of e-bikes on the trail. Volunteers report their findings to WLP. The information is gathered and when appropriate, changes are made to operating plans and mitigations that manage the trail system.

There would be no additional personnel cost for enforcement of the aforementioned mitigations.

10. **Comment:** The EA is missing an analysis of the costs of the project and any determination of the viability of the project. As mandated in MEPA, the economic viability of the project must be evaluated regardless of the source of financing. Also, because the project area is on school trust lands, a more complete discussion of opportunity costs is needed to fully understand what revenue potential may be lost. [Mike Shaw]

Response: The DNRC Trust Land Management Division manages Montana's trust land resources to produce revenue for trust beneficiaries, while considering environmental factors and protecting the future income-generating capacity of the land. The economic analysis provides information that evaluate the economic factors relevant to its decision. Economic factors relevant to the decision that were analyzed include; estimated purchase dollar value of the proposed easements and annual interest earned that would be distributable to the trusts; value of timber rights purchased within a 16-foot trail corridor; and estimated percent reduction in value on 480 acres for easement restrictions imposed on DNRC's use of the Public Recreation Use Easement. The proposed Public Recreation Use Easement would restrict development rights such as developing parcels for homesites but allows for continued forest management which is the primary use of the land. The EA was amended to include land value and revenue information regarding homesite leases. See Section 3.8.2.2 for details.

Over the last decade, the City of Whitefish in conjunction with WLP have purchased conservation easements on more than 6,100 acres and have built over 42 miles of trails and 12 trailheads around the City of Whitefish. These projects have been accomplished through community partnerships, grants, endowments, volunteer labor and private donations. WLP publishes a community report annually that outlines the revenues and expenditures related to the Whitefish Trail. The report is published online at www.whitefishlegacy.org.

Construction and maintenance costs of proposed trails and associated infrastructure are not analyzed as these costs are undeterminable at this time until site specific engineered designs and plans are developed for trails, bridges and boardwalks.

Safety - Traffic

11. **Comment:** The EA does not evaluate what the current and potential future effect is/will be on increased traffic on East Lakeshore. The traffic count study cited in the EA was from 2008. A new study of the use is warranted and necessary for public safety. The use has also diversified with many more bicyclists using the road by individuals, as well as groups and those doing the Continental Divide Trail route. The effect of increased bike traffic, if the trail provides access to East Lakeshore for bicyclists to choose to "close the loop" by returning to their starting point should also be considered. [Marie Russell-Shaw]

Response: The EA does analyze for the existing condition and effects of traffic on East Lakeshore Road which is a public road maintained by Flathead County. This road is useable by the public under state or federal law regardless of the type of use. Flathead County was scoped on this project. No comments were received. The 2008 traffic count sited in the EA is the last traffic count that the county has done on East Lakeshore. DNRC and WLP staff did talk with the county road department superintendent in August 2017. The following information was provided at that time. The road was built in 1917 and at that time it was deeded and declared a county road. The road does not meet current new road building standards, but the county does not have plans or funding to improve or change the road. The road is not a high priority or a high concern road for the county. They manage the road mainly for drainage and sloughing as wet springs and erosion are the biggest concerns. Due to the curvy, windy nature of the road, the road isn't comparable to other county roads but since it tends to be self-limiting, it slows traffic throughout the length of the road. County road standards are based on their busiest roads; at 4k vehicles/day - a painted centerline would be considered, and if a road reaches 6k/day, a centerline is required. The County's assumption is that the lack of steady traffic on the road would not bring the numbers close to these triggers. See Section 3.7.1.4 for details.

12. **Comment:** More important is the relative impacts to the East Lakeshore and Del Rey road system. While the State is not responsible for the roadway, decisions regarding state resources that have a demonstrable effect on the 'human environment" must be considered carefully. [Mike Shaw]

Response: Access to the proposed Public Recreation Use Easement and a portion of the Close the Loop Trail Easement would be via East Lakeshore Drive on the east side of Whitefish Lake. These two roads are public roads maintained by Flathead County. This means that these roads are useable by all public under state or federal law regardless of the type of use. The EA did analyze the effects of traffic on the roads. The proposed action would moderately increase traffic as people access the trailheads. See Section 3.7.2.2.4 and Response #11 for more information.

Safety - Fire

13. Comment: The Proposed Action may lessen the potential for human fires due to an increased presence of trail users, including additional patrols and reports managed by volunteers and trail crews. Also, Whitefish Trail segment under consideration by the Flathead National Forest may decrease traffic on East Lakeshore. Trail users will be provided an alternative access to Smith Lake and Swift Creek. Both effects should be included in the EA. [Whitefish Legacy Partners]

Response: The potential for human caused fires during recreational use under the proposed action is limited because no overnight camping and thus no campfires would be allowed at trailheads or along trail corridors. This mitigation however is difficult to enforce as most illegal campfires that have historically occurred are happening at night when trail users, patrols, etc. are not at these locations to provide "eyes and ears".

The Whitefish Trail segment under consideration by the Flathead National Forest would provide an alternative access to Swift Creek and Smith Lake via a trail system that would connect from the base of Whitefish Mountain Resort. This alternative access however would not decrease traffic on East Lakeshore Road.

Safety – Humans and Wildlife

14. Comment: Human safety is at risk. Mitigations would not likely eliminate negative bear encounters that may result in mauling's and/or human fatalities. [Gil Jordan, Kimberly Pinter, Open Letter]

Response: The proposed action would likely increase the risk of dangerous wildlife and human interactions. Proposed mitigations such as signage, educational outreach materials, seasonal closures and temporary trail closures would likely lessen the risk of these encounters but would not eliminate the possibility of an encounter.

15. Comment: Because of their quietness, biker/runner safety should be of the utmost concern when considering construction and placement of trails in bear country. Recommend mountain-bike-specific signs at THs. (language for signs is in the letter). Recommend brochures/posters with same messages and should be distributed to bike shops and should be used in outreach presentations. [MT FWP]

Response: The Final EA was amended to include FWP's recommended mitigations regarding recreating in bear habitat. See mitigations in Section 3.4.2.2.

16. Comment: The Beaver/Swift section of trail should have users in groups of 3 or more and their dogs with them. Post this on warning signs. [Charles Overcast]

Response: Signage at trailheads would include information about hiking/biking in groups. Recreating in larger numbers could reduce the risk of human-wildlife conflict as people tend to make more noise and look more intimidating.

Unleashed dogs can have a negative impact on wildlife which may result in negative wildlife encounters. There would be a requirement to have dogs on leash for the area near Boyle Lake and the segment of trail between Lazy and Swift Creek.

Safety – Other

17. Comment: Safety seems to miss a few critical issues that are something more than "moderately impactful". There is an existing rifle/shooting range on private property adjacent to the trail between Lazy and Swift creeks. [Mike Shaw]

Response: There is an existing rifle/shooting range on private property east of the proposed trail segment between Lazy and Swift Creek. At its closest point, the rifle range is 1400 feet from the trail system. There is an existing restricted road that would intersect the proposed trail where users of the trail could leave the trail system and travel east on the road. The rifle range would then be 900 feet at its closest point where the road leaves state land and goes onto private. Access any further on the road is restricted and would be considered trespass. There is no legal access to the public to the rifle range.

Vegetation

18. Comment: There is skunk cabbage that relates to prime Grizzly habitat that you seem to be unaware of. [Charles Overcast]

Response: The draft EA disclosed that riparian and wetland habitat is present and that it is important for grizzly bear spring foraging. Section 3.4.2.2 Proposed Action – Direct and Indirect Effects – Grizzly Bear states:

Within the analysis area, there are 1,538 acres of grizzly bear hiding cover available and 80 acres of riparian habitat (important for spring foraging).

Text below has been added to Table 6 and Section 3.4.2.2, Grizzly Bear of the final EA:

Spring foraging habitat is also present, including riparian zones where skunk cabbage grows, and important early green food source for grizzly bears.

19. Comment: Windfall with the Spruce are going to be an issue for users. Logging west of the trail will cause more windfall. [Charles Overcast]

Response: Section 2.2 of the EA states that the trail corridors would be 16-foot-wide and that: *The DNRC would continue to generate revenue from timber management (outside of the proposed Close the Loop and Public Recreation Use Trail Corridors and the proposed infrastructure footprint) and current and future land use licenses*.

Table 2 of the EA states:

Timber harvest would continue within the general easement area, however, environmental impacts from proposed timber harvesting would be analyzed under a separate EA.

Section 3.1.2 Environmental Effects of the EA states: *Timber harvest would continue within the general easement area, however, environmental impacts from proposed timber harvesting would be analyzed under a separate EA. All timber harvested would use applicable forestry BMPs to be protective of soils.*

Thus, because no more than 16-foot wide corridors would be logged if this proposed action is approved and future logging activities would be analyzed under a separate EA, potential windfall has not been analyzed in depth in this EA.

20. Comment: The EA states that a sensitive plant survey has not been done. The plant survey should be done and effects to plant life of the proposed trail evaluated prior to any approval of the trail route. The removal of trees and potential for wind throw also should be considered and how this interacts with the complicating recommendation of removing trees to improve sight distances to mitigate unexpected encounters with wildlife. [Marie Russell-Shaw]

Response: If the proposed action is selected, the trail would be approved but the final route could be adjusted. Section 3.2.2.2 Proposed Action – Direct and Indirect Effects – Sensitive Plants of the EA lists the following mitigation: *Conduct a sensitive plant survey and if possible route trail and move proposed infrastructure around sensitive plant locations.*

Reducing bear encounter risks does not call for additional logging; see Section 3.4.2.2 Proposed Action – Direct and Indirect Effects – Grizzly Bear (Mitigations): *Design trail to reduce the risk of bear encounters, to include increasing sight distances for mountain bikers and incorporating features that would discourage high speeds.*

Fisheries

21. Comment: Concerned that construction of a bridge over Lazy Creek will create sedimentation in Lazy Creek. How will the sediment disturbed by bridge building activities be mitigated? What will the effects of the sedimentation be to the creek bed downstream? How will this affect the fishery? How will any adverse effects be rectified? [Marie Russell-Shaw]

Response: See response to similar comment in Hydrology and Soils.

Sedimentation in Lazy Creek consists of two primary types; short-term and long-term. Short-term sedimentation occurs when wildlife, humans or equipment cross the stream channel and long-term sedimentation occurs when the channel erodes a meander channel, or a hillslope failure deposits a large amount of sediment in the active channel that is eroded over time. Construction of the bridge over Lazy Creek would create short-term sedimentation in the channel that would be mitigated by the actions described in Section 3.4.2.2. Impacts on the stream channel downstream of the bridge site due to the short-term sedimentation caused by the construction activities would be very low due to the proposed construction sequence and construction BMPs installed around the construction site. The volume of sediment put into the water column during the construction activities would be less than that generated by an intense summer thunderstorm. The volume and duration of turbidity and sediment generated by bridge construction activities would have low to no impact on both the stream channel and fish populations within Lazy Creek. Both the stream channel and fish populations endure summer thunderstorm freshets between one to ten times a summer, so the construction activities would not create undue stress on either the channel or fish population. One of the inherent capabilities of stream channels is their dynamic equilibrium. This means that the channel constantly changes yet always maintains a consistent set of physical and habitat features. Any short-term sedimentation caused by the bridge construction would likely be readjusted by the next spring high flow that would erode and deposit gravels, sands and silts throughout the entire channel reach.

Recreation

22. Comment: Recreation on the Whitefish Trail will continue to increase in the future and long-term impacts are concerning. While some impacts can be mitigated, others will be difficult to enforce and mitigate. [Amy Robinson]

Response: With the current population and tourism growth in and around the City of Whitefish and Flathead County, it is expected that recreation on existing Whitefish Trail will continue to increase in the future. Development of the proposed trail system would increase the overall use of the area. It is anticipated that the increase in use would be moderate to high. Trails and associated infrastructure would require long-term maintenance. The Whitefish Trail System Support Fund is an endowed fund with the purpose of providing a permanent annual revenue stream to support operations, maintenance and management.

Mitigations that require site specific project oversight are straightforward and more easily enforced by project managers. Mitigations that require voluntary compliance by trail users are not so easily enforceable and can be challenging. Please reference Response #9 for more information on mitigation enforcement.

23. <u>Comment:</u> If the Swift and Lazy bridges and trail between are constructed, this remote and lightly visited habitat zone between Whitefish Lake and the Olney cut-off road would eventually be overrun by recreational users, particularly mountain bikers. The EA does not propose any mitigation for this dispersal of mountain bikers into the larger area that currently lacks trails and open roads. [Steve Thompson]

<u>Response:</u> As state school trust land, this area is open to hunting, fishing, and all other recreational activities that require a State Recreational Use License. There is no proposed mitigation for restricting recreationalists from accessing state lands adjacent to the proposed trail. *The proposed trails would involve crossings of roads that are currently closed to public motorized use. Therefore, construction of this trail segment would provide new access and potentially result in an increase in nonmotorized use of four miles of previously inaccessible roads in the northwest and southern portions of the analysis area.* See amended language in Section 3.4.2.2 for details. None of these roads however access further west without trespassing onto private property or fording Lazy Creek where some bridge infrastructure remains from a temporary bridge used to provide access to the Lazy-Swift 2 timber sale. *The existing bridge infrastructure remaining at Lazy Creek that provided access to the timber sale between the proposed Swift Creek and Lazy Creek bridge sites could be used to build a temporary bridge to move construction equipment across Swift Lazy Creek. Once the Swift and Lazy Creeks bridges were installed, the temporary bridge would be removed.* See amended language in Section 3.3.2.2 for details. Educational signs such as "Please Stay on the Trail" would be posted aiming to deter users from leaving the trail.

24. <u>Comment:</u> Recreation – Miles of trail/trailheads is wrong. User data from the "Economic Report" is more updated than what is in the EA. The no action says no impacts but disagree because of the negative impacts to Smith Lake from user-built trails. [Whitefish Legacy Partners]

<u>Response:</u> The Final EA was amended to correct the number of Whitefish Trail miles and trailheads. Table 7 was amended to include updated user counts found in the *"The Economic Impact of Outdoor Recreation and the Whitefish Trail in Whitefish, Montana".* There is an existing user-built trail that accesses Smith Lake Dam from the parking area on West Smith Lake Road; however, the No Action Alternative would not have a negative increase to this user-built trail. The construction of a fence along the perimeter of the outlet of Smith Lake under the proposed action would protect the integrity of the earthen dam and prevent resource damage from dispersed use. This language was amended in section 3.6.2.2.

25. <u>Comment:</u> Because of their quietness, biker/runner safety should be of the utmost concern when considering construction and placement of trails in bear country. Recommend mountain-bike-specific signs at THs. (language for signs is in the letter). Recommend brochures/posters with same messages and should be distributed to bike shops and should be used in outreach presentations. [Montana Fish, Wildlife and Parks]

<u>Response:</u> The Final EA was amended to include FWP's recommended mitigations.

26. <u>Comment:</u> The use of E-Bikes is expanding rapidly. How will their use be addressed and enforced? [Marie Russell-Shaw]

<u>Response:</u> Some e-bikes have been reported using the existing Whitefish Trail system. The trail system is currently patrolled by volunteers who collect data, provide education, and aid when needed. The volunteers also inform users of the rules that apply to the trail system including dogs on leash and the exclusion of e-bikes on the trail. Volunteers report their findings to WLP. The information is gathered and when appropriate, changes are made to operating plans and mitigations that manage the trail system.

27. Comment: How can you mitigate users with dogs/bikes leaving the trail? This could lead to user built trails. [Charles Overcast]

Response: As state school trust land, this area is open to hunting, fishing, and all other recreational activities that require a State Recreational Use License. There is no proposed mitigation for restricting recreationalist from accessing state lands adjacent to the proposed trail. Educational signs such as "Please Stay on the Trail" would be posted aiming to deter users from leaving the trail. The trail system is currently patrolled by volunteers who collect data, provide education, and aid when needed. Volunteers report their findings to WLP. User built trails are discouraged and would be reclaimed as necessary to prevent resource damage and/or trespass onto private property.

28. Comment: Will horses be allowed to cross bridges/boardwalks? If so, what are the safety measures? [Charles Overcast]

Response: Some features of the trail, such as bridges, boardwalks, and the hard surfaces for American Disabilities Act (ADA) accessibility, would not be conducive to use by horses and therefore would be restricted. See Section 3.6.2.2 for details.

Wildlife

29. Comment: The proposed area provides habitat for many species including grizzly bear, wolf, moose and bobcat and building bridges and trail in this area could displace wildlife from high-quality habitat. [David Fern, Gil Jordan, Kimberly Pinter, Open Letter, Steve Thompson.]

Response: Section 3.4.2 Environmental Effects – Wildlife and Fish of the draft EA disclosed the likelihood of displacement of wildlife and quantified the estimated acreage where wildlife could be disturbed/displaced. In addition, the final EA has included the acreage of disturbance/displacement resulting from additional access to the closed public roads.

Section 3.4.2.2 Proposed Action – Direct and Indirect Effects – General Wildlife in the final EA now includes the following mitigations to minimize the displacement effects: install signage to educate trail users on sensitive wildlife and habitat, proper trail behavior, and the importance of managing dogs and to discourage off-trail use. Signage would also be used to post a leash requirement for dogs on the trail between Swift Creek and Lazy Creek, and seasonal gated closures of trails through or near sensitive habitat areas in the spring months. In addition, the final EA states: *The City of Whitefish and WLP work with DNRC and other agencies on the management of the trail between Swift and Lazy Creeks.*

With these mitigations and others listed in the EA, impacts to wildlife from the proposed action would range from low to moderate as summarized in Table 2 and discussed in further detail in Section 3.4.2.2 Proposed Action – Direct and Indirect Effects – General Wildlife, Fish, Big Game, and Threatened, Endangered and Sensitive Species.

30. Comment: Concern about the trail/bridges between Lazy/Swift and direct/indirect wildlife impacts, specifically Grizzly. [Amy Robinson]

Response: Effects specific to grizzly bears were disclosed and quantified in Section 3.4.2.2 of the draft EA. In addition, mitigations specific to grizzly bears are included in the final EA and would reduce, but not eliminate, adverse effects to the species.

31. Comment: There are no mitigations for moderate indirect effects to wildlife species. An EIS should be completed with an amendment to use the Delrey Road. [Charles Overcast]

Response: New mitigations have been added and are shown in the final EA (see response to comment 29). Mitigations are not included for all moderate indirect effects, as state statute

does not require it. The mitigations are summarized in the response to comment above. Also see the response to comments under Alternative Development for discussion of Delrey Road as an alternative.

32. <u>Comment:</u> Human wants should be balanced with wildlife needs. Dozens of miles already exist. We do not need new trail everywhere especially in sensitive wildlife areas. [Open Letter]

<u>Response:</u> There are effects to wildlife with this proposal with the highest negative effects being moderate to certain wildlife species. These concerns and effects are addressed in section 3.4 of the EA. Effects to wildlife have been analyzed and mitigated where feasible.

33. <u>Comment:</u> This EA forecasts a minimum of "moderate" impacts to wide variety of species provided mitigation strategies. The EA does not, however, provide a comprehensive list of the expected mitigation nor does it assess the efficacy or compliance expectations of the varied constraints on human activity. Mitigation measures must be enforceable. [Mike Shaw]

<u>Response:</u> The draft EA noted *some level of non-compliance would be expected*. The final EA further addresses this issue with the following mitigations: *Install signage describing sensitive wildlife, discouraging off-trail use, managing dogs, proper trail behavior, leash requirement for dogs on the trail between Swift Creek and Boyle Lake, and seasonal gated closure of trails through or near sensitive habitat areas in the spring months. The City of Whitefish and WLP work with DNRC and other agencies on the management of the trail between Swift and Lazy Creeks.*

In addition, as stated in section 2.2: The trails would be managed under the current management standards described under the *Whitefish Trail Management and Operations Plan (DNRC 2018)* and other associated management plans with responsibilities shared among DNRC, the City of Whitefish, and its assignees, including WLP. Thus, when trail issues are identified, or mitigations measures are not being followed, these three entities would work together to address the issue(s).

34. <u>Comment:</u> Consult with DNRC/FWP biologist to explore seasonal closures of trail segments that hold significant wildlife habitat during certain periods of the year, specifically loons. [Montana Fish, Wildlife, and Parks]

<u>Response:</u> The Final EA was amended to include FWP's recommended mitigations. MFWP was consulted, and a response was received on June 7, 2018. DNRC coordinated with MFWP to develop trail mitigations that would help reduce impacts of the proposed Action on wildlife. Common loon mitigation measures in the final EA included spring season (April 1 – June 30) closure of trails within 500 feet of common loon nesting areas. In addition, grizzly bear mitigation measures in the EA included trail closures from Boyle Lake to Swift Creek during the spring season.

35. <u>Comment:</u> Require trail users to leash dogs in the project area to reduce the potential for human-wildlife conflicts. Also provide signage to educate users on the effects of themselves and their dogs on wildlife. [Montana Fish, Wildlife, and Parks]

<u>Response:</u> The Final EA was amended to include FWP's recommended mitigations. Mitigations measures in the final EA include signage regarding management of dogs and a leash requirement for portions of the trail between Boyle Lake and Swift Creek. See response to comment 29 for detailed list of mitigations that would be applied for wildlife.

36. <u>Comment:</u> Concern for the potential displacement of wildlife as a result of hunting pressure. The trails would provide access to areas that heretofore have been difficult to access.

Hunting from the trail will increase the number hunters and consequently move wildlife from what was previously more secure habitat. [Ed Lieser]

Response: As shown below in the excerpts from the EA, the EA discloses the potential for increased hunting pressure and displacement for Big Game in the area between Lazy and Swift Creeks and notes the proposed action's moderate effect.

Section 3.4.1 Existing Environment – Big Game states: *The portion of the easements between Swift Creek and Lazy Creek (approximately one-mile straight-line distance), and between Lazy Creek and Boyle Lake (approximately a 0.5-mile distance) is difficult to access and likely receives little hunting pressure, and therefore may serve as important security habitat to big game during the hunting season.*

3.4.2.2 Proposed Action – Direct and Indirect Effects states: *However, new trails would be constructed in areas that are currently relatively inaccessible to people due to the lack of roads and trails (such as the area between Swift Creek and Boyle Lake). This would include new nonmotorized access to four miles of previously inaccessible public road due to new trail crossings of roads in the northwest and southern portions of the analysis area. Therefore, the proposed action would reduce the amount of security habitat available in this area. A localized increase in hunting mortality could occur due to the increase in human access during the big game hunting season…*

…Based on the disturbance data and with the implementation of the mitigation measures, the proposed action would have moderate adverse direct and indirect effects to big game. Additionally, MFWP reviewed the proposal and determined the Action Alternative would not likely have any significant cumulative effects on big game populations using the area.

37. Comment: The analysis needs to address the effects of hunting from the trail on wildlife. Should the analysis reveal a conflict, then recommend mitigation commensurate with the impact. [Ed Lieser]

Response: The existing Whitefish Trail system does not allow for discharging of firearms from the trail corridor or at trailheads. To date, there have been no reports of hunters hunting from the trail; however, hunters will utilize the trail system to access adjacent land. Also, restrictions on General Recreation Use of State Lands as outlined in Administrative Rules of Montana [ARM] 36.25.149 states that a recreationist shall use firearms in a careful and prudent manner. A recreationist may not negligently discharge a firearm. The trail system is currently patrolled by volunteers who collect data, provide education, and aid when needed. The volunteers also inform users of the rules that apply to the trail. Volunteers report their findings to WLP. The information is gathered and when appropriate, changes are made to operating plans and mitigations that manage the trail system.

38. Comment: Does not agree with the EA cumulative impacts on wildlife*, "New disturbance from the proposed action alone would affect only one percent of the CEAA. Overall, there would be moderate adverse cumulative effects to wildlife species*." The Ribbon would provide access to mountain bikers, hikers and dogs to other DNRC road currently not used or inaccessible from this part of the State Forest, spreading impacts through presently secure habitat. We do not think DNRC can mitigate this expanded zone of lost wildlife security. The Final EA needs to depict existing and proposed DNRC roads within the analysis area, particularly in the vicinity of The Ribbon trail. [Headwaters MT]

Response: The access of four miles of currently closed roads from trail crossings has been added to the impacts analysis in the final EA. The EA notes that this would include increased nonmotorized access to four miles of previously isolated restricted road due to new trail crossings of roads, resulting in an additional 204 acres of general wildlife life, lynx, grey wolf

habitat and 136 acres of grizzly habitat possibly disturbed by nonmotorized recreational use under the proposed action. Figure 8 in the EA shows motorized and non-motorized roads and trails.

Overall, disturbance effects could result in long-term changes in abundance and distribution of wildlife within 330 feet of the proposed and existing trails (854 acres, or 36 percent of the direct/indirect analysis area), and therefore the Proposed Action is expected to have moderate, adverse direct and indirect effects on wildlife in general.

The cumulative acreage affected by recreational use under the proposed project (with the additional 4 miles of currently closed roads included) would be up to 4,607 acres (7 percent) of habitat in the CEAA. With the implementation of mitigation measures specified in Section 3.4.2.2, there would be low adverse cumulative effects to wildlife species.

The following mitigations have been added or modified to address this potential impact: *Install signage describing sensitive wildlife, discouraging off-trail use, managing dogs, proper trail behavior, leash requirement for dogs on the trail between Boyle Lake and Lazy Creek, and seasonal closure of trails through or near sensitive habitat areas in the spring months. The City of Whitefish and WLP work with DNRC and other agencies on the management of the trail between Boyle Lake and Lazy Creeks.* In addition, as stated in section 2.2: “The trails would be managed under the current management standards described under the *Whitefish Trail Management and Operations Plan (DNRC 2018)* and other associated management plans with responsibilities shared among DNRC, the City of Whitefish, and its assignees, including WLP.” Thus, when trail issues are identified, or mitigations measures are not being following these three entities will work together to address the issue(s).

Response To Comments

Table 1 – People in Support

Douglas Rhodes	Dr. Murray Knechtel	Alan Hartlief
Emily Glasson	Deborah Bertlett	Pete Thomas
Harry Meltzer	Murray Craven	Anna Easley
Randy Feigl	Casey Priseman	Hal Frutiger
Paul McCann	Robert Douglas	Matthew Grindrod
Julie Baldridge	Dick Boyce	Murray McCabe
Chelsea Liddell	Doug Boyce	Janice McCann
Frances Montanye	Doug Hickok	Daniel White
Maureen MacDonald	Rob Milnthorp	Doug Reed
Jeff Paronto	Ian Sanchez	Christina Madsen
Vanessa Gailey	Matthew Moran	Bear Barinowski
Scott Gerber	Chris Clouse	Matt Crest
Theresa Vonada	Kate Rothfuss	Harris Montanye
David McDermid	Orrin Webber	Julie Sebby
Drew Bledsoe	Imagination Station Whitefish	Great Northern Cycle & Ski
Heidi Schley	Sheli Thomas	OTB Designworks
Jeremiah Martin	Gateway to Glacier Trail	Heidi Van Everen
Tyler Hoppes	Riley Polumbus	Kevin Gartland
Mike Buesseler	Alan	CB
FAMB President	Erin Bodman	Noah Bodman
Joshua Lewis	Lisa Vettese	Sandra Boyce
Bill Walton	Steve Thompson	

Response to Comments

Table 2 – Open Letter

Charles L Overcast	Lynn Groman	Debra Funtz
Eric Funtz	Jessica Cripe	Teresa Wood
Richard W. Smith	Cara Land	Patricia Phillips-Sullivan
R. Scott Sorensen	Suzanne Lee	Jim Gabe
David Blair	Kimberly Polumbus	Andrea Dunnigan
Kathleen E. Bergan	Mimi Mosev	Kristina Marchbanks
Jeanne Laryan	Susan Schree	Marsha Ingraham
Jerry Ingraham	Renee Schur	Brenda Moen
Mark Moen	Gary Wattend	Susan Richardson
Cheryl Wattkins	Annie McLaughlin	Jay Bartholomew
Connie Kelsay	Steven Thompson	Dave Fern
Bob Brown	Charlie Abell	Doug Chadwick
Mary Sloan	James G. Sloan	Stephen Braun
Nancy Woodruff	Don Stolte	Amy Robinson
Don Hall	Dave Hadden	Jeffrey Funk
Jim Fiddler	Shelley I. Love	Robert Love
Sandi Everts	Greg Schatz	Steven Gniadek
Scott Felton	Dru Rafkin	Gary Yee
Roxie Brothers	Gil Jordan	Kimberly Pinter
Jessie Grossman	Angel Dominguez	Diana Tague

Appendix E - Preparers and Contributors

TETRA TECH, INC.	*TITLE*
Daniel Buffalo	Water Resources Management / Modeling
Thomas W. Bumstead	Senior Fisheries Engineer
Ruthanne Elsie Coffey	Hydrogeologist
Cameo Flood	Senior NEPA / Permitting Project Manager
Butch E. Fries	MEPA Review / Editor
Susan Nancy Gallagher	Clerical
Steven A. MacNeill	QA / QC
Sandra McCann	Clerical
Scott L. Morford	Environmental Scientist
Lynn M. Peterson	Cultural Resource Specialist / GIS Analyst
Wendy R. Rieth	Wildlife Biologist and GIS Analyst
Kathie M. Roos	Project Manager / Chemical Engineer
John E. Surbrugg	Senior Soil Scientist / Operations Manager
DEPT. OF NATURAL RESOURCES & CONSERVATION	*TITLE*
Dave Ring	Stillwater Unit Manager; Decision Maker
Nicole Stickney	Special Uses Forester; MEPA Review / Editor
Chris Forristal	Wildlife Biologist
Marc Vessar	Hydrologist
Patrick Rennie	Archaeologist
Terry Groesbeck	Office Manager; Clerical