DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

Final Environmental Assessment for the proposed McAllister 2023 Forest Management Project on the Colville Reservation, Ferry County, Washington

AGENCY: Bureau of Indian Affairs

ACTION: Notice of Availability

SUMMARY: This notice is to advise interested parties that the Bureau of Indian Affairs (BIA) as lead federal agency, with the Confederated Tribes of the Colville Reservation, has prepared a final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the McAllister 2023 Forest Management Project on the Colville Reservation, Ferry County, Washington. This notice also announces the EA is now available in hard copy at the addresses below.

ADDRESSES: You may request a hard copy of the EA and FONSI by writing the BIA Colville Agency, PO BOX 150, Nespelem, Washington, 99155, and the Colville Tribe, PO BOX 111, Nepelem, Washington, 99155.

FOR FURTHER INFORMATION CONTACT: Randall Friedlander, BIA Colville Agency Superintendent, at (509) 634-2316 and Chasity Swan, Colville Tribe Integrated Resource Management (IRMP) Coordinator, at (509) 675-8361.

SUPPLEMENTAL INFORMATION: The Colville Tribe, through contractual obligations to the BIA, has proposed the McAllister 2023 Forest Management Project. The activities under the agency proposed action to harvest approximately 12 million board feet of timber on approximately 2,402 acres of tribally owned and tribal allotted lands within the San Poil District of the Colville Reservation in Ferry County, Washington. The activities will occur under guidelines in the Plan for Integrated Resource Management (PIRM)(Klock 2001) and associated Final Environmental Impact Statement (FEIS)(Klock 2000).

Authority: This notice is published pursuant to 43 CFR 46.305 of the Department of Interior Regulations (43 CFR Part 46), the procedural requirements of the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4371 et seq.), and is in accordance with the exercise of authority delegated to the Assistant Secretary – Indian Affairs by 209 DM 8.

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Randall Friedlander Date
Colville Agency Superintendent
Bureau of Indian Affairs
U.S. Department of the Interior

Finding of No Significant Impact

McAllister 2023 Forest Management Project
Colville Reservation, Ferry County, Washington

Based on the attached final Environmental Assessment's (EA) for the McAllister 2023 Forest Management Project for a proposal to harvest 12 million board feet of timber on approximately 2,402 acres of tribally owned and tribally allotted lands in the San Poil District of the Colville Reservation in Ferry County, Washington, I have determined that by implementation of the agency proposed action and environmental mitigation measures as specified in the EA, the proposed McAllister 2023 Forest Management Project, will have no significant impact on the quality of the human environment. In accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969, as amended, an Environmental Impact Statement will not be required.

This determination is supported by the following:

1. Agency and Tribal Interdisciplinary Team involvement was conducted and environmental issues related to development of the McAllister 2023 Forest Management Project were identified. Alternative courses of action and mitigation measures were developed in response to environmental concerns and issues. Tribal community outreach was conducted (Colville Tribes Plan for Integrated Resource Management (PIRM) (2001) and associated Final Environmental Impact Statement (FEIS)(2000); EA section 1.6).

2. The EA discloses the environmental consequences of the "proposed action" and "no action" alternatives.

3. Protective measures will be levied to protect air (Clean Air Act as amended 42 USC 7401 et seq.), noise, and water quality (Clean Water Act of 1977, 33 U.S.C. 1251 et seq.), as outlined in the Mitigation Measures (Section 4 of EA), CCT Forest Practices Handbook (Colville Tribal Law and Order Code Title 4-7), CCT PIRM and associated FEIS.

4. The proposed action will not jeopardize threatened and endangered species (Threatened and Endangered Species Act of 1983, as amended, 16 U.S.C. 1531 et seq.) (Colville PIRM (2000) and associated FEIS (2001); EA Section 4.4, and Appendix B).

5. There are no adverse effects on historic properties (National Historic Preservation Act, as amended 16 U.S.C. 470) for the purpose of 36 CFR 800.9 (b) by preserving archeological value through conduct of appropriate research in accordance with applicable standards and guidelines. Should undiscovered archeological remains be encountered during project ground-disturbing activities, work will stop in the area of discovery and the stipulations 36 CFR 800.11 be followed. The BIA Regional Archaeologist and Tribal Historic Preservation Officer (THPO) were consulted for this project (Colville PIRM and associated FEIS; EA Appendix B).

6. The proposed action will not affect public health or safety.

7. The proposed action will not cause a significant effect to energy resources (Energy Policy Act of

2005), water resources, wetlands (E.O. 11990), or flood plains (E.O. 11988). The McAllister 2023 Forest Management Project will not result in discharge of pollutants into waters of the U.S. or in surface water quality issues (Clean Water Act, as amended, 33 U.S.C. 1251 et seq.) (Colville Tribes (PIRM) (2000) and associated FEIS (2001); EA section 4.3).

8. The cumulative effects to the environment are mitigated to avoid or minimize effects of implementation of the proposed project (Colville Tribes PIRM (2001) and associated FEIS (2000); EA Section 4).

9. The proposed action will improve the economic and social conditions of the effected Indian community.

10. The proposed action will not affect unique characteristics of the geographic area such as the proximity to park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

The McAllister 2023 Forest Management Project will not have significant impacts on natural and unique geographic features such as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild and scenic rivers; national natural landmarks; sole or prime drinking water aquifers; prime and unique farmlands, wetlands, floodplains; national monuments; eagles and migratory birds, and other ecologically significant areas.

11. The proposed action will not produce highly controversial effects on the quality of the human environment and will not have unresolved conflicts concerning alternate uses of available resources.

12. The proposed action will not have highly uncertain effects on the human environment or involve unique or unknown risks.

13. The proposed action will not establish a precedent for future actions with significant effects or represent a decision in principle about a consideration.

14. The McAllister 2023 Forest Management Project is not related to other actions with individual insignificant but cumulatively significant environmental effects.

15. There will be no disproportionately high and adverse human health or environmental effects on minority or low-income communities (Environmental Justice E.O. 12898; Title VI of the Civil Rights Act of 1964).

16. The proposed action will not affect American Indian Religious Freedom (42 U.S.C. 1996). The action will not limit access to, and ceremonial use of, Indian sacred sites on federal lands, by Indian religious practitioners, and/or adversely affect the physical integrity of such sites (Native American Graves Protection and Repatriation Act, 25 U.S.C. 32).

17. Logging and related activities can introduce new invasive species to a site via uncleaned equipment and soil disturbing activities or cause currently present invasive species to spread more rapidly. In order to insure the action will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area, or promote the

introduction, growth, or expansion of the range of such species, cleaning equipment prior to using on site, washing equipment in a centralized area, re-seeding heavily disturbed sites such as skid trails and landings is required. The use of biological controls on large weed infestations and herbicides is recommended as needed primarily along roadsides. If borrow pits or fill material are used from offsite, it is recommended that these materials be weed free to reduce the spread of invasive species. (EA Section 4.6)

18. The proposed action will not contribute to the disposal of solid or hazardous waste (Resource Conservation and Recovery Act of 1976; 43 U.S.C. 6901, et seq.).

19. The proposed action will not be a violation of federal, state, local, or tribal law or requirements imposed for the protection of the environment.

_____ _____

Date

Randall Friedlander, Superintendent
Colville Agency
Bureau of Indian Affairs
U.S. Department of the Interior

McAllister 2023 Forest Management Project

Environmental Assessment

The Bureau of Indian Affairs and the Colville Confederated Tribes of the Colville Indian Reservation

Proposed Action: The Bureau of Indian Affairs and the Confederated Tribes of the Colville Indian Reservation proposes the McAllister Forest Management Project. The objective of this project would be to harvest approximately 12 million board feet of timber on approximately 2,402 acres of tribal trust lands within the San Poil District.

Official Decision Maker: Randal Friedlander, Superintendent, Colville Agency, BIA

For further information:

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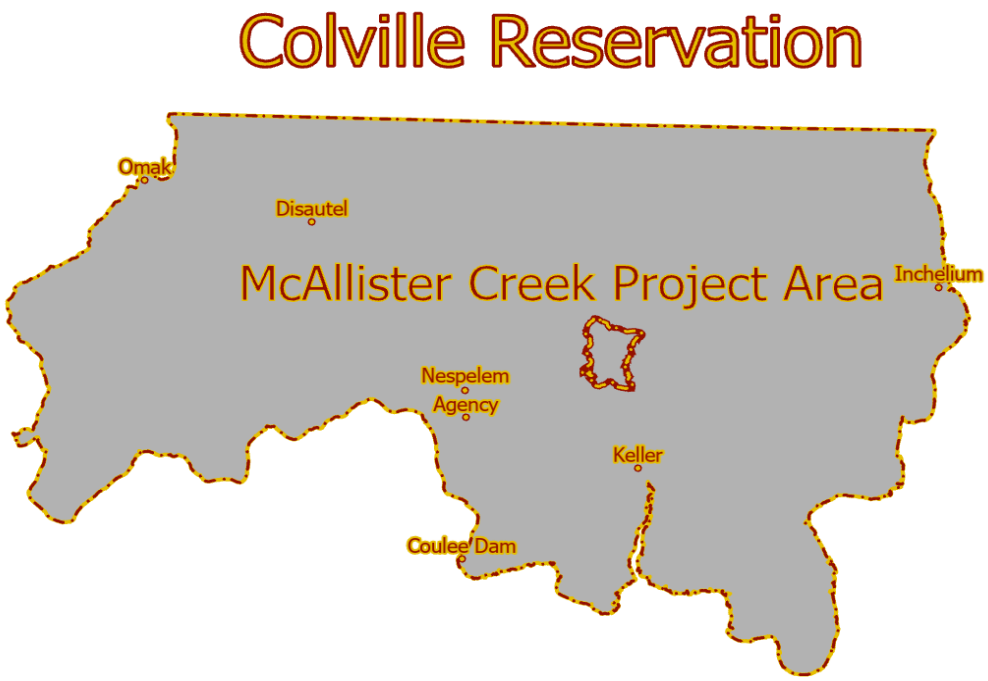
January 4, 2023



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1.0 Purpose and Need

1.1 Introduction

The McAllister Creek Project Area encompasses McAllister and Capoose Creek watersheds, portions of Upper and Lower San Poil River and Cache Creek are also included and bound the project area to the south and east, along with Louie Creek. South Nanamkin Creek borders north to the project area and Upper Little Nespelem River to the west. The project area is approximately 10,077 acres.

The San Poil Forestry District of the Confederated Tribes of the Colville Indian Reservation (CTCR) proposes harvest of approximately 12 million board feet (MMBF) of timber on 2,402 acres, 728 acres of Pre-Commercial Thin (PCT), and 109 acres of artificial conifer regeneration associated to post-harvest activities. Site preparation needs associated to harvest unit prescriptions include 229 acres of mechanical and 109 acres of broadcast burn (BB), requiring 1.3 miles of fireline construction, with an additional 39 acres of BB PCT. The proposed harvest would require approximately 0.63 miles of new road construction and 37.9 miles of road reconstruction within the project area. Additionally, 455 acres are proposed by Forestry for prescribed broadcast burning (RxBB), requiring 3 miles of fireline construction, and 36 acres of mechanical Hazard Fuel Reduction (HFR).

1.2 Purpose and Need for Action

The federal action (40 CFR 1508.18) is the BIA approval of the McAllister 2023 Forest Management Project, which triggers BIA compliance with the National Environmental Policy Act (NEPA; 42 USC § 4321-4375) and associated regulations (40 CFR 1500-1508, 43 CFR 46). This Environmental Assessment is prepared to meet the BIA's NEPA responsibilities. The purpose of the action is to be able to implement the activities under the federal action to meet the primary need of revenue for CTCR.

The CTCR have designated a commercial land base where timber is grown for profit. Timber growing, harvesting and processing are major sources of income for the CTCR, the tribal membership and other groups in the local population. The CTCRs Plan for Integrated Resource Management 2000-2014 (PIRM) and Record of Decision (ROD)(Klock 2000), calls for an annual harvest of 77.1 MMBF of timber. The PIRM also stresses the need for a healthy forest ecosystem with habitat that would contribute toward and support populations of native species, particularly those associated with cultural use and provides for the protection and restoration of watersheds on the Reservation so as to ensure they continue to provide high quality water and fish habitat (Klock 2001).

The McAllister Forest Management Project Area contains stands of timber that present a high risk of sustaining unacceptable losses to several forest insect and disease agents as well as the risk of loss to wildfire. The Proposed Action also fulfills the need for forest regulation.

1.3 Issues, Concerns and Objectives

Forestry

Forest Health and Timber Regulation

Most forested ecosystems in the ponderosa pine, Douglas-fir, and grand fir zones on the Colville Reservation exhibit stocking levels and species compositions that have never before existed. The

result is an unstable condition of the fuel and vegetation that threatens the ability of the ecosystems to provide the resources desired by the CTCR on a long term basis. This is also true of the McAllister Project Area.

An abundance of insect and disease mortality agents are present in the forested area within the project area. Any one of these, under certain conditions, could cause rapid increases in tree mortality (e.g. epidemics of bark beetles or defoliators). Stand treatments applied judiciously can reduce the likelihood of sudden increases in mortality due to these organisms.

Implementation of the Proposed Action would help fill the need to bring the ecosystem into a balanced condition.

The concept of timber regulation requires that all land in the timber base produce (grow) timber at an acceptable level. Since managed timberlands are more productive than unmanaged lands, the more timberland brought under management, the closer we are to meaningful regulation of the timber harvest and therefore to a sustained yield condition.

1. To reduce the risk of loss of timber to insects, disease and fire.
2. To improve general forest health.
3. To expand forest regulation.

Indicator:

A. Acres treated by each alternative.

Income for the CTCR, Support of Tribal Businesses and Employment for the Tribal Membership

The income from the sale of timber accrues directly to the Tribal Government and, through that governing body, to the Tribal membership. It is therefore in the best interest of the Tribes to realize income from the sale of Reservation timber.

The Colville Tribal Sorting Yard (owned by the Colville Tribal Federal Corporation) and businesses owned by Tribal members in the region rely on the sale of timber from Tribal lands. These and other wood-based businesses also employ Tribal members. These firms are engaged in logging, transporting, milling, marketing, and processing of timber into dimension lumber and other products.

1. To provide income for the Colville Tribes.

Indicator:

A. Estimated stumpage produced by each alternative.

1. To provide employment for the tribal membership.
2. To provide profit for tribally owned businesses.

Indicator:

A. Estimated volume of timber harvested per alternative.

Soil Resource Objectives

1. To avoid causing detrimental soils conditions on more than 25% of the treatment (logged) area.

Indicators:

A. Displacement: movement or removal of topsoil.
B. Compaction: topsoil is noticeably compressed or flattened, decreasing several inches in depth in contrast to nearby undisturbed soils of similar character.
C. Fire damage: most of the topsoil is consumed and the top layer of mineral soil has changed color.
D. Rutting of soil in the bottom of swales and draws.

Hydrology Objectives

1. To minimize erosion and sediment delivery to surface waters and prevent streambank/wetland disturbance.

Indicators:

A. Road construction and use.
B. Road density by watershed.
C. Road construction/use within 200ft of surface water.
D. Harvest within 200ft of surface water.
E. Harvest on vulnerable soils.

Fish and Wildlife Objectives

1. To maintain and restore critical forest structure; old growth forests, deciduous stands, wetlands, large woody debris, etc. (Klock 2001).

Indicator:

A. Wetland and stream adjacency acres.

2. To reduce alterations to fish and wildlife habitat in order to sustain viable populations and communities through maintained thermal, forage and travel cover and reduction of habitat fragmentation (Klock 2001).

Indicators:

A. Block size and adjacency, acres.
B. Road density, mi/mi^2.
C. Miles of new road construction.

3. To maintain or increase the quantity and quality of habitat necessary to sustain and restore fish populations through high quality habitat and water (Klock 2001).

Indicators:

A. Miles of new road construction.
B. Density of stream crossings (new, existing, removed).
C. Miles of stream adjacency.

1.4 Compliance with Other Codes and Regulations

This project is designed to be compliant with CTCR Forest Practices Code (208), CTC 4-9: Hydraulic Project Permitting, 4-10: Water Resources Use and Permitting, the Endangered Species Act, Clean Water Act, National Environmental Policy Act, Tribal Forest Protection Act,

National Indian Forest Resources and Management Act, National Historic Preservation Act, Clean Air Act and other applicable Tribal and Federal Regulations.

1.5 Determination

The Colville Agency BIA Superintendent with the concurrence of the Colville Business Council (CBC) would determine which alternative is selected for implementation.

a) To take no action (Alternative A).

b) To approve the proposed action (Alternative B).

c) To direct an additional alternative be created.

The BIA Superintendent would also determine whether the environmental consequences are significant and prepare either a Finding of No Significant Impact (FONSI) or determine that Environmental Impact Statement (EIS) would be required.

1.6 Public Involvement

During the development of the CTCR PIRM numerous "visioning sessions" with the Tribal membership occurred and detailed input by Tribal staff and management utilized to develop goals for management of natural resources. In July of 2001 the ROD and PIRM were approved by the CBC. The ROD outlines a 15 year implementation plan in which the cumulative effects were analyzed in Alternative 7 of the Final Environmental Impact Statement (FEIS)(Klock 2000).

The McAllister Forest Management Project was presented to the 3P Team on May 26, 2022. The 3P Team and public also had a field tour of the project area on June 16, 2022. This project is a part of that 15-year plan for Forest Resource Management on the Reservation (Klock 2001).

2.0 Alternatives Considered

2.1 General Discussion: Alternative Design

The National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ), the Department of the Interior (DOI) and the BIA have developed regulations that require that a reasonable range of alternatives be considered in NEPA documentation, including the "Proposed Action" and "No Action" alternatives.

For this project, Alternative A (No Action) is included to fulfill the requirements of NEPA and to provide baseline values by which to measure the effects of other alternatives. For the purposes of this document, "no action" means that no harvest or other resource manipulation would occur if this alternative were adopted.

Alternative B (the Proposed Action) was constructed to fulfill the purpose and need. That is, Alternative B was designed to:

- Reduce risk of loss of timber to insects, disease and fire,
- Provide stumpage income for the Tribal Government of the Colville Tribes,
- Provide employment for tribal members,
- Provide opportunity for profit for tribally owned businesses,
- Improve general forest health,

- Expand forest regulation.

All alternatives are designed to meet all legal and procedural requirements to which the CTCR and the BIA must adhere.

2.2 Alternative A: No Action

The "No Action Alternative" includes the BIA not approving the McAllister Forest Management Project at this time and/or the BIA and CTCR not implementing activities under the project. Under this alternative no timber harvest, road reconstruction, or other manipulation of resources would take place.

2.3 Alternative B: Proposed Action

The Proposed Action Alternative includes the BIA approving the McAllister Forest Management Project and the BIA and CTCR implementing the activities under the proposal. This Alternative does meet the Purpose and Need of the project. This alternative was proposed by San Poil Forestry District (SPFD) to meet forest health needs, and provide volume for the Annual Allowable Cut (AAC) of 77.1 MMBF outlined in the PIRM.

Foresters of the SPFD of the CTCR propose harvest of approximately 12 MMBF of timber from about 2,402 acres, with additional 728 acres of PCT and 109 acres of conifer tree planting, and 530 acres of hazard fuel reduction/prescribed broadcast burn treatments in the McAllister Creek Project Area. There are an estimated 229 acres of mechanical and 109 acres of broadcast burn site preparation associated with the various silvicultural treatments this entry. This harvest would require about 0.63 miles of road construction and about 37.9 miles of road reconstruction and 3 miles fireline construction.

Table 1. Prescription Summary for Alternative B.

Prescription	Acres
Seed Tree / Overstory Removal (ST/OR)	1,486
Commercial Thin (CT)	73
Improvement Cut (IC)	498
Shelter Wood (SW)	217
Seed Tree (ST)	19
Regeneration Cut with Reserve Trees (RRT)	109
Total Commercial Harvest	**2,402**
Pre-commercial Thin (PCT)	728
Tree Planting – artificial regeneration	109
Site preparation (MSP) – mechanical (harvest Rx, natural)	229
Site preparation (BB) – broadcast burn (harvest Rx, artificial)	109
Prescribed Broadcast Burn (RxBB)	455
Hazard Fuel Reduction (HFR) – mechanical	36

Pre-commercial Thin with Broadcast Burn (BB PCT)	39
Total Hazard Fuel Reduction (HFR)	**530**

The harvest system acres are shown in Table 2. The acres are estimated. Operational decisions would be made on the ground to determine how each acre would be harvested. Generally, areas over 35% slope would be cable logged, but there are small, steep inclusions that may be harvested using a ground-based system such as tractor or forwarder. Tether/cable assisted logging method can be used to aide ground based machines to harvest and skid on steeper inclines of 40% to 70% slopes that would be normally considered unsafe for equipment or damaging to soils. Non-commercial thinning units are not included in these estimates because no logging equipment would be used for those treatments.

Table 2. Alternative B harvest systems.

Logging Method	Acres
Ground Based	1,737
Tether-Assisted Ground Based	573
Helicopter	92
Total	**2,402**

Table 3. Alternative B road construction and reconstruction.

Roads	Miles
New Construction	0.63
Reconstruction	37.9
Fireline Construction	3

Road Closure Plan

All newly constructed roads would be closed following past-harvest activities.

Other Project Design Features

When timber harvest takes place, Best Management Practices (BMP's) outlined in the Colville Confederated Tribes Forest Practices Handbook (208 Handbook) would be employed. Timber contract compliance by the Timber Sale Officer (TSO) would be the foremost method ensuring that the BMP's are followed and implemented. Proper maintenance of roads and skid trails after logging operations would be implemented to reduce erosion. Designated skid trails and cable logging would help reduce impacts to the soil resources.

Culverts would be replaced at certain locations depending on the necessity which would be determined by the TSO's, District Officer, or the road engineer.

3.0 Affected Environment

3.1 Forestry

Affected Environment

General Discussion

The McAllister Forest Management Project would take place on the San Poil District of the Colville Indian Reservation located in southern Ferry County. The project area is located northwest of Keller and east of Nespelem WA comprising roughly 10,077 acres.

Forest Health

From the early 1920's to the late 1960's single tree selection or selective harvest were the most common logging practices on the CTCR. The objective was to remove the larger more desirable tree species, Ponderosa pine, and Western larch. There is much evidence of this throughout the McAllister Creek 2023 Project Area, but more recent, improved, scientific-based forest management practices are apparent as well. Favorable topography and access have facilitated extensive past logging activity.

Around the same time, land managers also began to actively and aggressively put out wildfires. Historically, the forest types in this project area would have been open and "park-like", with frequent fires removing many of the understory trees, and creating an open condition that would have favored shade intolerant species such as Ponderosa pine and Western larch. These openings have been encroached with conifers and shrubs over the last 80-year period.

Years after Selective Harvest and Fire Suppression

Selective harvest not only removed desirable species composition, but it also removed much of the fire tolerant tree species and size classes.

The species composition has shifted so heavily to Douglas-fir, Subalpine and Grand Fir and Lodgepole Pine that intensive management such as site preparation and/or planting would be needed to shift the area back to a Ponderosa pine/Western larch dominated forest. Douglas-fir, Subalpine/Grand Fir and Lodgepole Pine are much more prone to insects and diseases, and far less tolerance to fire and drought. Because of the dense level of Douglas-fir, Subalpine/Grand Fir and Lodgepole Pine in the understory, the proposed treatment units are at very high risk for catastrophic fire and insect outbreaks, as well as continued mortality related to secondary or tertiary fire effects from the 2015 NorthStar Fire and 2014 Devil's Elbow Complex.

Insects & Diseases

There are several insects and diseases that are causing forest health issues within the project area. Many of these have been exacerbated by past selective harvest practices and fire suppression, as discussed earlier in. Dwarf mistle toe and Armillaria root rot are both present in the project area as well as insects such as Western Pine Beetle, Western Spruce Budworm and Tussock Moth.

Fuels

80 years of active fire suppression has negatively altered plant community composition, structure, density and fuels loading within the project area.

Stand Composition Density, Structure and Fuel Loading

Currently stands in the project area are varied depending on length of time since last treatment. The risk of catastrophic wildfire is greater in these stands than would have normally occurred due to dense stocking or ladder fuel conditions that will allow fire into the forest canopy.

Fire Regimes and Condition Class

Fire regimes are used to categorize the historic frequency of fire on the landscape. The project area is primarily composed of two fire regimes: Fire Regime I & Fire Regime II

Condition Class

Condition class one is the most prevalent within the project area at 10,036 acres, and 3,345 acres in condition class two.

3.2 Soils

The landscape throughout the project area is dominated by mountain slopes. Soils are formed predominantly from residuum and colluvium, glacial till, volcanic ash, and loess. Soil parent materials largely derived from glacial till with a mantle of volcanic ash and residuum and colluvium derived from granitic rock. Table 4 shows the general soil types and their landscape characteristics. Soils data for the Colville Indian Reservation comes from the detailed soil survey of the Colville Indian Reservation (NRCS 2002).

Table 4. General soil types and their landscape characteristics of the project area.

General Soil Types	Map Unit Names	Landform
Silt Loam/Silt Loams Association	Nevine, Hodgson, Canteen, Capoose, etc.	Mountain Slopes, Lake Terraces
Loam/Loams Association	Centralpeak, Spokane, Dinkelman, etc.	Mountain Slopes, Hills, Mountains
Sandy Loam	Merkel, Skanid, Wapal, Springdale, etc.	Mountain Slopes, Outwash Terraces,

3.3 Hydrology

This project area is 10,077 acres, and contains the entire Capoose Creek and McAllister Creek Watershed Management Units (WMUs), as well as parts of the Cache Creek, Upper San Poil River, and Lower San Poil River WMUs. The San Poil River flows north to south along the eastern boundary of the project area, fed by Capoose, McAllister, and Cache Creek. The western boundary is formed by Keller Ridge, the drainage divide of the San Poil basin, where the Upper Little Nespelem River WMU drains away from the project area. Cache Creek is the southern boundary of the project area, with half of the sub-basin contained within the timber sale area.

Table 5. Hydrologic features within project area footprint.

Hydrologic Feature	Potentially Affected Size
Mapped Streams	27.8 mi
Mapped Wetlands	236.11 ac

3.4 Fish and Wildlife

Wildlife

The McAllister Forest Management Project Area provides habitat for a variety of wildlife species. Habitat components important for life requirements vary by species and guilds.

The area supports habitat for a variety of avian species including owls, raptors, cavity nesters, and a wide range of songbirds. Edge habitat along with riparian areas and areas with deciduous

vegetation provide the life requirements for the highest concentration of birds and other mammals. Structural habitat components critical to sustaining bird populations include deciduous vegetation, large diameter trees, snags and an abundance of large woody debris.

The project area supports habitat for Northern goshawks (Accipiter gentilis), a priority forest raptor strongly associated with mature forest stands with dense and closed canopy cover, open understory for flyways, and multiple canopy layers for protection. These attributes are critical for nesting and foraging Northern goshawks. These stands of mature timber with high canopy closures exist within the project boundary.

Great gray owls (Strix nebulosi) share similar habitat requirements as the Northern goshawk with the additional requirement of open meadows for hunting. Pileated woodpeckers (Hylatomus pileatus) and white-headed woodpeckers (Picoides albolarvatus) are suspected residents of the project area. Woodpeckers seek habitat that contains large diameter trees and mature stands of timber with an abundance of woody debris.

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), of 1940, as amended, and Migratory Bird Treaty Act (16 U.S.C. 703-712), of 1918, as amended, prohibits anyone, without a permit, from "Taking" eagles or any bird, including their parts, nests, or eggs. Within this Act, eagles/nests/eggs/young are not to be "Disturbed" including agitated or bothered. Aerial surveys have been conducted in the past by the CTCR to identify eagle and raptor nests. Eagle nests and roosts near the McAllister Forest Management Project are associated with large trees near or adjacent to the Sanpoil River.

The project area contains habitat that meets the life requirements of a variety of mammal species including snowshoe hares (Lepus americanus), mice (Cricetidae spp.), voles (Cricetidae spp.), beaver (Castor canadensis), several species of bat (Chiroptera spp.), coyotes (Canus latrans), black bears (Ursus americanus), bobcats (Lynx rufus), and cougars (Puma concolor).

Reptiles and amphibians are also residents of the project area and are sensitive to habitat changes. Areas used for reproduction are among the most important areas to protect for these species. Each of these species react differently to the impacts of logging operations, but maintaining species diversity and structural complexity ensures the continuance of the greatest suite of species. The retention of large woody debris and snags is an important habitat structure for both amphibians and reptiles.

Mule deer (Odocoileus hemionus), white-tailed deer (Odocoileus virginianus), Rocky mountain elk (Cervus elaphus nelsoni), and moose (Alces alces) are culturally significant species to tribal members for both subsistence and ceremonial uses and are found within and adjacent to the project area. Fawning and calving habitat is found near riparian zones, aspen stands, and deciduous vegetation associated with seeps and springs. Foraging habitat is available in a variety of areas and includes small openings, south facing slopes and areas with high vegetative diversity. Hiding and thermal cover are primarily provided by areas with dense shrub cover and/or multi-aged stands of both deciduous and coniferous trees. Aerial big game surveys have documented winter range for elk, mule and white-tailed deer, and moose within the perimeter of the project area.

The Colville Reservation is currently home to five known wolf packs. As apex predators gray wolves (Canis lupus) play an important role in ecosystem function. The project area provides habitat for resident and migrant wolves and wolves are known to use this area year round.

Wolves are a state threatened species in Eastern Washington and the CTCR manages current wolf populations under their approved Wolf Management Plan.

The project area is within the historic range of Canada lynx (Lynx canadensis) and in the upper elevations (above 4,000 feet) habitat could still exist. The blocks above 4,000 feet are to be managed to provide travel, forage and denning habitat for lynx on a landscape level. In 2020 the Fish and Wildlife Department began implementing a Canada lynx augmentation to restore lynx to the Colville Reservation. Their management and protection would be addressed by CTCR District Wildlife Biologists and all measures would be taken to ensure their habitat is protected. When implemented correctly and under strict guidance timber sales can assist in creating lynx foraging cover but it is essential that all habitat requirements for lynx are provided across the landscape and large openings that result in non-lynx habitat should be limited or mitigated by the establishment of travel corridors.

Fish

Within the McAllister Forest Management Project Area, McAllister Creek, Capoose Creek, and portions of Cache Creek and their tributaries comprise their respective watersheds as well as a portion of Upper and Lower Sanpoil River watersheds. These streams are an important and vital system for our resident fish species. Fish species present in these streams are Eastern Brook Trout (*Salvelinus fontinalis*), Redband Rainbow Trout (*Oncorhynchus mykiss gairdneri*), Dace species (Rhinichthys spp.), native minnows (Cyprinidae), and Sculpins (Cottidae).

Additionally, the Lake Roosevelt drainage area containing the McAllister Project Area is included in the Northeast Washington Research Needs Area of the Mid-Columbia Recovery Unit for bull trout (*S. confluentus*; USFWS 2002). Bull Trout Threatened and Endangered Species federal status is currently listed as "threatened" while Washington State considers bull trout a candidate for listing. Bull trout in the McAllister Project Area and surrounding areas are extremely rare and believed to be extirpated. Historically, populations likely occurred in several tributaries to the Columbia River above Grand Coulee Dam (Lake Roosevelt). However, currently no spawning populations exist within the Northeast Washington Research Needs Area. The proposed activities within the McAllister Project Area are unlikely to encounter or adversely affect Bull Trout.

Federally Threatened or Endangered Species

Federally Threatened or Endangered Species: Section 7 of the Endangered Species Act (ESA; 16 U.S.C. 1531 et seq.) of 1973 as amended, and its implementing regulations found at 50 CFR 402, require federal agencies to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat. The project would not directly or indirectly impact on any living resources.

Information for Planning and Conservation was acquired from the United States Department of Interior Fish and Wildlife Service (USDOI-FWS) for Endangered Species Act Species List. An Official Species List from the United States Department of Interior Fish and Wildlife Service (USDOI-FWS), is included as Appendix B.

Habitat

Riparian areas within the project area are associated with seeps and springs, ponds, intermittent and perennial streams, and wetlands. Deciduous trees and shrubs are present in the lower

elevations of the project and in the saddles and draws of the higher elevations; these areas are considered riparian habitat if they are linked to a seasonal or perennial water source.

The project area supports a variety of aspen and cottonwood stands possessing multiple stand characteristics. Many of the stands in the project area are healthy stands that do not require management. Stands that do require management should be dealt with on an individual scale and interested departments should be contacted before management techniques are implemented. The most common issue associated with these stands is conifer encroachment.

Within the project there are areas that contain sufficient woody debris both in the uplands and riparian habitats. These areas would be impacted by the removal of large recruitment trees, the reduction of snags and the removal of downed wood due to site prep and equipment use.

Areas within the project area contain remnant patches of old or mature forest stands. Many of these stands are on steep slopes and along riparian areas in locations where access is difficult. These areas are important because of their high fish and wildlife density, high fish and wildlife species diversity, important fish and wildlife breeding habitat, important fish and wildlife seasonal ranges, limited and declining availability and high vulnerability to habitat alteration.

3.5 Cultural Resources

National Historic Preservation Act (NHPA)

Section 106 of the National Historic Preservation Act (NHPA) as amended, and its implementing regulations found at 36 CFR Part 800, require federal agencies to identify cultural resources for federal action. The significance of the resource must be evaluated using established criteria outlined at 36 CFR 60.4. If a resource is determined to be a historic property, Section 106 of the NHPA requires that effects of the undertaking on the resource be determined. A historic property is "…any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property…" (NHPA, 16 USC 470w, Sec. 301[5]).

"Cultural resources" include archaeological sites, standing structures, and locations or landforms that are important to the identity of the indigenous people of the area (i.e., traditional cultural properties [TCPs]). For more details on the affected cultural environment, please consult the CTCR Cultural Resource Management Plan (CCT 2007), the cultural resources overview for the Colville Reservation (Gough 1990) and the FEIS for the PIRM (Klock 2000).

The McAllister Project is within the ancestral lands of the Sanpoil Tribe, who can identify their ancestry back over a thousand years in this area. The languages of the twelve tribes comprising the CTCR have been grouped into general Salishan and Sahaptian language families. The majority spoke the Interior Salish languages of nxaʔamcín and nsləxcín, though the Sahaptian languages of the Nez Perce (nímípuʔ) and Palus (palús) were also spoken. The language of the Sanpoil is nsləxcín.

For the purposes of consultation with the Tribal Historic Preservation Officer (THPO) under Section 106 of the National Historic Preservation Act, the 3,660 acres of treatment areas, roads, firelines and attendant landings shall be considered the Area of Potential Effect (APE).

There have been three previous surveys within and immediately adjacent to the McAllister Forest Management Project Area. A review of the CTCR History/Archaeology (H/A) Program

databases resulted in seven documented archeological sites and four Traditional Cultural Properties (TCPs) within the project area.

A search of Bureau of Land Management/General Land Office (GLO) records indicates fourteen historic Indian allotments, two historic structures and one historic road through the project area. The road was not relocated in any of the previous efforts. It is likely that road building and timber harvest activity have destroyed the remains of this road and structures and they do not meet the requirements of eligibility for the National Register of Historic Places (NRHP).

The cultural resource survey of the McAllister Forest Management Project relocated three of the archaeological sites, the cemetery and documented four new sites.

Table 6. Cultural Resources Recorded within and adjacent to the McAllister Project Area*.

Site ID Number	Site Name	Site Description	APE
45FE461	Nanamkin Cabin	Historic Structure	Yes
45FE702	Capoose Creek Historic Site	Historic Homestead	Yes
45FE789	Metcalf Homestead	Historic Homestead	No
45FE1079	McAllister Cabin 1	Historic Structure	No
070901-2-SH	McAllister Cabin 2	Historic Structure	Yes
070901-3-SH	McAllister Cabin 3	Historic Structure	Yes
101018-1-AS		Historic Bridge	Yes
101922-1-ASH	McAllister Creek Cabin	Historic Structure	Yes
100422-2-ASH	Lonely Stairs Cabin	Historic Structure	Yes
100422-1-ASH	2 Car Grotto	Historic Scatter	Yes
071222-1-ASH	Rattlesnake Cairn	Pre-Contact Cairn	No
CEM-WA-FE-9	Covington Family Cemetery	Historic Indian Cemetery	Yes
CCT-WA-FE-422		TCP – Gathering Area	Yes
CCT-WA-FE-433		TCP – Gathering Area	Yes
CCT-WA-FE-466	Capoose Creek	TCP – Place Name	Yes
CCT-WA-FE-479	Many Wild Carrots	TCP- Gathering Area	Yes

*Archaeological and sacred site locations are not provided in this document because disclosure of site locations may put these resources at risk to vandalism and looting (see the National Historic Preservation Act of 1966, Section 304a; and the Archaeological Resources Protection Act of 1979, Section 9a) or jeopardize their access, integrity and ceremonial use (see Executive Order No. 13007).

Archaeological and sacred site locations are not provided in this document because disclosure of site locations may put these resources at risk to vandalism and looting (see the National Historic Preservation Act of 1966, Section 304a; and the Archaeological Resources Protection Act of

1979, Section 9a) or jeopardize their access, integrity and ceremonial use (see Executive Order No. 13007).

Thirty-three resources have been documented within the McAllister Project Area. Eleven archaeological sites, four TCPs, one historic Indian cemetery, fourteen historic Indian allotments one historic GLO road and two GLO structures have been identified within project area. Previously documented archaeological sites were relocated within timber harvest blocks 312-055, 312-042, 314-008 and 314-037. These archaeological sites have not been evaluated for the NRHP, but appear to be eligible for the National and the Colville Tribal Registers of Historic Places and will require mitigation to protect these resources. One historic bridge is on the northern edge of block 314-040. This property may be eligible for the NRHP; however, the extent of the site within the harvest block does not contain features or structures that will be adversely affected by project implementation. New archaeological sites were documented within harvest blocks 312-072 and 312-058 and will require mitigation to protect these resources. The remaining resources appear to be eligible for the NRHP, but are outside of the project APE and should not be affected by project implementation.

All TCPs and archaeological sites must meet at least one of the following criteria to be considered eligible for evaluation to the National Register: A) the must be associated with events that have made a significant contribution to the broad patterns of history, B) they must be associated with the lives of persons significant to our past, C) they must embody the distinctive characteristics of a type, period, or method of construction or they represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lake individual distinction, or D) they must have yielded, or be likely to yield, information important in prehistory or history. Additionally, to be a "property" a TCP must have tangible boundaries (36 CFR 60.4; Parker & King 1998).

Shannon and Moura (2007) have aptly observed that due to the unique nature of TCPs, the standards identified above must also be evaluated with perception of Native American history. When reviewing TCPs for continued use of at least 50 years, for instance, it must be recalled that federal and state policies common in the 1800s restricted, regulated and denied access to property to Tribal people which had previously been in their exclusive territory. Oftentimes, Indian people may shift their area of use to adjacent or nearby locations if a previously utilized property suddenly (and beyond Tribal control) became unavailable. Therefore, a location may still retain value and continue to be a TCP when access is restored (Shannon & Moura 2007).

In pre-contact and historic times, the knowledge of these TCPs, their locations and use, provided people with a means for subsistence and important cultural items for personal use or trade. These are cultural practices which continue to this day. Additionally, the nature of these sites and their close proximity to other documented cultural resources, including pre-contact, historic and additional TCP sites, increases their potential to yield information important to the CCT.

Oral history accounts of the region identify the general areas of McAllister Creek, Capoose Creek and Cache Creek as possessing traditional value. It is the position of the Tribe that "A place is significant due to its location and the meaning assigned to it, not the language of the name by which it is known. While recording place names in the original languages is of immeasurable value, the places will continue to have meaning and significance regardless of the language used to describe them (George 2011).

It is likely that cairns, rock alignments, talus pits and other rock features may be found throughout the area. Pictographs are common in this region and have a high potential to be present on the flats adjacent to streams and springs where people would have camped while taking advantage of upland resources. Small pre-contact camps may be present on the upland areas adjacent to springs or creeks, or in sheltered canyons. Evidence of early historic-period occupation, logging and mining features and/or graves may be present within the project area, as suggested by the presence of historic allotments. Picture trees (i.e., old growth pine trees with anthropomorphic figures carved into them) are possible in this area, as well as more customary peeled pines.

The project area is located within the Lower San Poil and Upper San Poil Watersheds, which contains twelve springs and all or portions of Empire Creek, Lime Creek, Iron Creek, McAllister Creek, Brush Creek, Cache Creek, Capoose Creek, Jack Creek, Louie Creek, Alice Creek, Manila Creek, Silver Creek, Dick Creek, Copper Creek, Meadow Creek, John Tom Creek, Lynx Creek, Bear Creek, Thirtymile Creek, North Nanamkin Creek, South Nanamkin Creek, Bridge Creek and the Sanpoil River. Water-based cultural activities occur year-round within the watershed with the most prevalent use during the summer. The harvest of native culturally significant plant species perpetuates across the landscape. The project area falls within portions of the watersheds which are documented as a principle gathering location for at least forty-one native plant species (Table 7) for consumption, construction, weaving and religious purposes (Marker et al. 2012). Twenty locations within the watershed have been documented as important areas for water related resource use and legendary landscapes. Some of these areas include Capoose Creek, Cache Creek, Horse Creek and the Sanpoil River.

Table 7. Traditional Cultural Plants gathered within the project area (Marker et al. 2011).

Cedar, *Thuja plicata*	**Fir,** *Multiple Species*	**Narrow-Leafed Cattail,** *Typha angustifolia*
Lodgepole Pine, *Pinus contorta*	**Wild Rose,** *Rosa*	**Arrow-Leaf Balsamroot,** *Balsamorhiza sagitata*
Buckbrush, *Ceanothuss spp*	**Wild Thimbleberry,** *Rubus spp*	**Ponderosa Pine,** *Pinus ponderosa*
Indian Carrots, *Perideridia gairdneri*	**Red Willow (red osier dogwood),** *Cornus stolonifera*	**Gray Willow,** *Salix*
Huckleberry, *Vaccinium spp*	**Hawthorn (red or black),** *Crataegus spp*	**Wild Mushrooms,** *Multiple Species*
Bitterroot, *Lewisia rediviva*	**Black Cottonwood,** *Populus trichocarpa*	**Lichen,** *Bryoia fremontii*
Bunchberry, *Cornus canadensis*	**Cherries (includes chokecherry),** *Prunus spp*	**Common Camas,** *Camassia quamash*

Elderberry (blue or red), *Sambucus spp*	**Hazelnut,** *Corylus cornuta*	**Celeries/Buscuit Roots,** *Lomatium spp*
Sages, *Artemisia spp*	**Serviceberry,** *Amelanchier alnifolia*	**Valerian,** *Valeriana spp*
Indian potato, *Claytonia lanceoata*	**Wild Rasperry,** *Rubus spp*	**Wild Blackberry,** *Rubus spp*
Foamberry, *Shepherdia canadensis*	**Bunchgrass,**	**Birch (including river birch),** *Betulaceae*
Indian Hemp (aka dogbane), *Apocynum cannabinum*	**Cottonwood,** *Populus deltoides*	**Maple,** *Acer rubrum*
Yew, *Taxus brevifolia*	**Juniper,** *Juniperus*	**Western Larch,** *Larix occidentalis*

3.6 Range Management

The forest blocks in the McAllister Project are entirely contained within Range Unit 80. This range unit has active permits issued and may have livestock present from June 1 to September 30. The Range Program infrastructure GIS layer shows fences and cattle guards will most likely be encountered in the southwest blocks near Cache Creek Rd. Other known fences are in the northwest portion of the project area and are used to exclude livestock from riparian areas. The CTCR Range Program asks that when encountered, infrastructure such as cattle guards, watering facilities, and fences be avoided if possible. If range infrastructure is damaged during project activity the project proponent would notifying the range program and ensure damage is repaired in a timely manner. Fences are of particular concern in that if they are along or near a roadway and are damaged, they need to be repaired immediately during the time livestock are expected to be present. Cache Creek Rd runs along the southern part of this project area and Highway 21 along the east portion. The Range Program also requests notification of when harvest activities will commence in an area so we can notify permittees. It will be necessary to keep gates closed during the grazing season June 1 to September 30.

4.0 Environmental Consequences

Summary Table of Issues Indicators

Table 8. Summary table of issue indicators for PIRM goals and objectives.

Resource	Issue	Issue Indicator	Alt. A	Alt. B
Vegetation /Timber	**Forest Health**	**Acres Treated**	0	2,402 ac

	Support of Tribal Wood Processing	**Timber Volume for Processing**	0	12 MMBF
	Tribal Income	**Projected Stumpage**	$0	$2,250,000
Hydrology **Fish & Wildlife**	**Sediment Delivery/Erosion** **Habitat**	**Road Construction**	0 miles	0.63 miles new construction 37.9 miles reconstruction
Hydrology	**Sediment Delivery to Surface Water**	**Road construction/reconstruction/use within 200 ft. of Surface Water**	NA	31.01 mi
Hydrology	**Sediment Delivery to Surface Water**	**Harvest within 200 ft of Surface Water**	na	453.55 acres
Fish and Wildlife **Road Density**		Capoose Creek	9.42 (mi/mi^2)	9.43 (mi/mi^2)
		McAllister Creek	12.20 (mi/mi^2)	12.22 (mi/mi^2)
		Cache Creek	5.46 (mi/mi^2)	5.50 (mi/mi^2)

4.1 Forestry

Impacts to Forestry Resources Alternative A: No Action

- No profits for Colville Tribe and the AAC of 77.1 MMBF would not be met.
- Forest management would not receive the 10% funds.
- No timber industry employment would be generated.
- Forest health would decline, increased risk to disease, insects, drought and wildfire would occur.
- No improvements in forest roads.
- Area would move farther away from the Desired Future Condition's in the Integrated Resource Management Plan.
- No new acres would be added to the regulated forest.
- Reforestation would not occur or be diminished.
- Wildfire prevention/mitigation would not occur, would not meet the goals of the National Fire Plan.

Under this alternative, no conifer trees would be harvested. No timber stumpage revenue would be generated. No Forest Management Deduction (10%) funds would be generated. No logging industry employment would be generated. No silvicultural treatments would be implemented. Forest health issues and concerns could possibly worsen, and the desired objectives would not be achieved in regards to Desired Future Condition's, identified in the (PIRM). Overstocking of forest stands; predominance of climax tree species, over mature trees, tree mortality, competing vegetation, forest insects and diseases problems and other current forest conditions would continue to affect the overall forest health. The potential forest site-productivity may never be achieved on some locations.

Fire suppression activities would continue as in the past. Any fires that occur in the project area would be actively suppressed. Fuels treatments would not take place.

The effect of Alternative A would be to allow site conditions to continue to depart from the normal historic range and further increase the probability of a wildfire scenario that would likely cause stand replacement on a considerable portion of the project area. When a stand replacing fire occurs, a substantial loss of revenue to the Tribe, wildlife habitat, and cultural practices would result.

Forest roads would not be maintained and/or reconstructed, and potentially upgraded by culvert installation and erosion control which would affect the access and use of resources by the Colville Tribe and public. Under-sized culverts and plastic culverts would not be replaced.

"No Action" on the McAllister Forest Management Project could put the pressure of achieving the projected stumpage revenue onto other reservation-wide project areas and natural resources. Specifically, the "No Action" alternative could be detrimental to forest health.

Impacts to Forestry Resources Alternative B: Proposed Action

- $2,250,000 of profit for the Colville Tribe or allottee with a harvest of 12 MMBF.
- Species composition on 2,402 acres would be shifted to Ponderosa pine and Western larch.
- Forest health would improve, diseased trees would be removed and disease resistant species would be regenerated naturally and with planting.
- Understory Douglas-fir/Grand fir encroachment would be piled and/or burned, reducing the likelihood of catastrophic fire.
- Density would be reduced in thick stands, creating a healthier forest.
- Desired Future Condition's outlined in the IRMP would be met over time.
- 0.63 miles of new road construction to facilitate logging. 37.9 miles of existing road would be improved.
- 530 acres hazard fuel reduction (broadcast burned or mechanical), reducing wildfire risk to homes and other Tribal property/resources.
- **All of these things cumulatively would create a faster growing, disease resistant, more productive forest landscape that would yield much higher volumes and value in the future.**

Alternative B would initially create approximately 42,485 tons of dead and down fuels on all treatment units, once slash treatments are completed the hazard will decline on most acres. Prescribed treatments will result in reducing the risk of catastrophic fire from occurring by moving stand density, structure and species composition toward the normal historic range. The Broadcast Burn treatments will reduce fuel loading by approximately 2,801 tons of natural fuels while reintroducing fire. Smoke and associated pollutants will be generated from burning fuels.

Some of the potential negative impacts that a timber sale may create, include the following: Visual landscape changes or disturbances would occur. Man-made "signs" (ribbon, tags, paint) are introduced into the area to guide the forest management. Noise and dust are created from logging operations. Existing vegetation is temporarily disturbed, but their resiliency to disturbances would allow them to come back. Skid trails and landings are created. Woody slash material would be created.

4.2 Soils

Impacts to Soil Resources Alternative A: No Action

The "no action" alternative would have no impact on the soil resource within the project area.

Impacts to Soil Resources Alternative B: Proposed Action

Soil will be impacted by ground-based logging, cable or cable assisted logging, tethered logging, excavator piling and broadcast burning. Approximately 2,310 acres would undergo ground-based logging/tethered-assisted ground based logging. Blocks that are cable logged, comprising approximately 80 acres, typically have fewer significant soil impacts. Blocks that are helicopter logged, comprising approximately 91 acres have even fewer significant soil impacts. If tethered logging is used instead of cable, soil impacts will vary depending upon localized conditions, but tend to improve overall safety. For site preparation, 470 acres will undergo broadcast burning, 210 acres will be excavator piled, and 2,827 acres will undergo lop and scatter. Approximately 1,312 acres (69%) of potential prime farmland exist within the commercial harvest blocks. Prime farmland within the project area is located within forested land that is part of the CTCR designated commercial timber base. It is unlikely that timber harvesting would have any detrimental effect on the functional integrity of the land classification and CTCR does not have future plans to develop the prime farmland within this project area.

Generally, areas with slopes exceeding 35% are less well suited to use of ground-based machinery and soil impacts will be greater. According to data obtained from the Colville Tribes RIA/GIS program, 4.4 percent of the total 2,310 ground-based logging acres of the proposed blocks in this project have slopes exceeding 35%, meaning the total ground-based treatment area with slopes exceeding 35% will be 102 acres. Anticipated soil impacts include displacement of topsoil, rutting, compaction, and erosion or soil loss. Ratings of potential for soil degradation are provided by the Natural Resources Conservation Service. Table 9 shows the number of acres of ground-based harvest classified by soil displacement, rutting, compaction, and erosion hazard ratings:

Table 9. Ground-based harvest acres with soil degradation ratings.

Soil Degradation Type	High Potential Acres	Moderate Potential Acres	Low Potential Acres
Displacement	510.9	1,624.5	175.2
Rutting	1,813.4	396.3	93.7

Compaction	1,822.8	410.5	77.3
Erosion	Null/Not Rated in NRCS Web Soil Survey With steep slopes, erosion could become an issue with severe precipitation events.		

The Natural Resources Conservation Service rates most soils with slopes exceeding 20% as poorly suited or unsuited for surface mechanical site preparation. Approximately 40 percent of the total harvest acres blocks in this project have slopes exceeding 20%. The primary factor limiting suitability is hill slope. Anticipated soil impacts include displacement of topsoil and erosion.

Skid trails and pile burning generally cause severe impact to the upper soil layer (Cooley, 2004). Skid trail impacts include compaction, rutting, and erosion or soil loss. Pile burning consumes most soil organic matter, nutrients, while changing the texture of soil surface layers.

470 acres are proposed for prescribed broadcast burning. Of the entire project area 57 percent of the total area is considered by NRCS to be highly susceptible to fire damage and 35 percent moderately susceptible, primarily due to subsequent water and wind erosion. Higher impact is associated with higher burn severity, with low severity burns posing less risk of soil damage.

Any new road construction likely involves clearing and grubbing, excavation, and compaction of multiple acres of soil depending on the mileage of new road. According to the project proposal sheet, approximately 0.6 miles of new road construction and 37.9 miles of road reconstruction will occur. With a total of 38.5 miles of new road construction and road reconstruction, approximately 131.2 acres of soil disturbance will occur.

Standard Operating Procedures and Mitigation Measures

All applicable Best Management Practices (BMP) specified in Tribal Code CTC 4-7 Forest Practices are required to limit soil damage (CTCR 2015). Some notable provisions follow:

Overall, activities should be performed when soil conditions are not likely to result in excessive erosion or soil movement, considering soil types, slopes, and climatic conditions.

Avoid developing prime farmland where possible to preserve those portions of the reservation which contain prime agricultural soils for agricultural purposes.

Increased soil impact is associated with higher burn severity; therefore, implementation of broadcast burning should maintain low severity burns in order to reduce soil damage.

4.3 Hydrology

Impacts to Hydrology Resources Alternative A: No Action

The no action alternative would allow for the natural ecological process to continue. Stream channel hydraulics and associated riparian vegetation would not be impacted by harvest related activities. Effective ground cover and hydraulic roughness would remain, continuing to provide overland flow attenuation and prevent nonpoint source pollutant delivery to downslope watercourses. Retention of mature vegetation would continue to provide canopy interception and reduced rain splash erosion. Infiltration would remain high, and rill and scour erosion would remain minimal. Additionally, soil structure would be maintained in the current state. All methods of timber harvest, ground- or cable-based, result in some amount of soil disturbance. Soil compaction generally occurs in locations where machinery tracks have traveled (particularly

in wet conditions), while destruction of soil structure and subsequent sediment mobilization generally occurs as a result of ground-based operation on steep slopes and a lack of traction. Transport of trees by logging equipment also results in soil disturbance and transportation. These effects would be avoided through Alternative A, maintaining soil structure, density, and productivity.

Road density would be maintained at the current level in Alternative A. Existing road densities in the Cache, McAllister, and Capoose Creek WMUs are higher than the desired condition outlined in the IRMP, but lower than the density that would be achieved as a result of Alternative B. Alternative A would also not involve reconstruction of any existing roads, allowing existing vegetative cover and stability to be maintained. Maintaining the lowest road density (i.e. the existing condition) would provide the closest approximation of natural hydrologic conditions, between the two scenarios. High road densities are detrimental to watershed hydrology primarily due to the interception and diversion of water from natural flow paths. When water flowing down a hillslope is intercepted by a road prism, ditch, blocked or undersized culvert, or other infrastructure, that water is generally diverted or lost to evaporation, rather than continuing as overland, shallow subsurface, or groundwater flow. As climate change advances, it becomes increasingly important to retain water on the landscape. High road density contributes to the loss of water on the landscape through decreased infiltration and increased evaporation, and each additional road increases these effects.

Several existing roads in the McAllister sale are stream adjacent, and have associated sediment delivery concerns due to outsloping, lack of maintenance, and insufficient drainage structures. Under Alternative A, these issues would not be addressed, and erosion would continue to occur. Additionally, currently undersized culverts would not be addressed under Alternative A, continuing to block fish passage and be at risk for failure during a high flow event.

Impacts to Hydrology Resources Alternative B: Proposed Action

- 0.63 miles of new road construction and 37.9 miles of road reconstruction
- 0.15 miles of new construction and 5.92 miles of reconstruction within 200ft of surface water
- Harvest activities within 200ft of surface water – 453.55 ac

All road construction and use associated with proposed timber harvest activities will lead to soil disturbance and loss as well as alteration of watershed hydrology (Hunner 2014). Specifically, road miles within 200ft of surface water are statistically likely to deliver sediment/erosion to surface water (Dubé et al 2004). Road reconstruction and new construction effects on water quality, hydrologic processes, and aquatic habitat will be the longest-on-going, longest-lasting, and highest-degree negative impacts resulting from the proposed action. The use of heavy machinery to create and redo roads will result in immediate sediment delivery to adjacent waterbodies. Additionally, reconstruction results in soil compaction and disturbance, both of which are significant causes of decreased soil health, eventual runoff channelization and continued erosive losses. Repeated improper reconstruction procedures that fail to reincorporate disturbed material into the road prism create linear features that channel water away from natural water features. When these features are created adjacent to streams, heavy flow events can cause the relocation of the active channel into the road prism, creating a safety hazard, and drastically altering the natural hydrology of the area. Proposed reconstruction and new construction in the

McAllister Project Area will occur on 36.76 miles of road, with as many as 20.1 additional miles of potential road use on BIA, County, and State roads. High road densities detrimentally affect water retention on the landscape, creating interception points that redirect flow from reaching creeks, streams, and wetlands. Abandonment and revegetation of roads can mitigate some of the effects of high road density, improving infiltration and decreasing overland flow, but retention of road prisms, nonnative road bed material, and artificial crossing structures such as culverts will continue to alter hillslope hydrology regardless of vegetation establishment.

The proposed project plan also includes 453.55 acres of planned harvest activities within 200ft of surface water. Harvest operations, including the use of heavy machinery to fell and skid timber, cause soil compaction and erosion; additionally, as a result of decreased vegetation, interception, infiltration and water use are decreased, and a greater volume of water occurs as overland flow. This can result in great sediment transportation to downslope streams and wetlands, resulting in decreased water quality. Additionally, harvest operations create linear features such as skid trails. If oriented parallel to the slope, or located in swales and topographic low points, these linear features channelize water, and lead to rill and gully erosion, sediment transportation, and road failure. These effects can be minimized by locating skid trails perpendicular to slope direction, and through the use of cable logging rather than ground based harvest systems, particularly on steeper slopes. Tethered logging, a harvest system new to the Reservation, which involves the use of a winch for assistance in machinery operation of slopes, is proposed for 573 acres of blocks. Existing Tribal Code does not allow for operation of ground based harvest systems on slopes over 35% due to potential soil impacts; however, tethered logging is in the process of being adopted for use on steeper slopes to increase efficiency and decrease costs of harvest. Where any ground based harvest system is used on vulnerable soils, the potential for compaction and erosion is increased. When these factors are combined with steep slopes and proximity to aquatic resources, the potential for sediment delivery and resource damage is significant.

Mitigation and Monitoring Requirements

Operators must ensure that all Best Management Practices (BMP) and standards for timber harvest identified in Colville Tribal Code (CTC) Chapter 4-7: Forest Practices are followed in order to minimize hydrologic disturbance resulting from actions taken under this alternative. During road construction and reconstruction Planners and Operators must ensure that new/re-constructed roads meet the BMPs and standards for roads identified in CTC Chapter 4-7: Forest Practices, and CTC Chapter 4-9 Hydraulic Projects if doing any culvert/bridge work. By meeting these BMPs Planners and Operators will minimize the water quality, hydrologic process, and aquatic habitat degradation associated with roads as a result of the actions taken under this alternative. The transportation plan developed by the San Poil Forest Roads Engineer incorporated input from the Environmental Trust Department regarding stream adjacent roads, new road locations, and culvert sizing and placement. The Forest Roads Engineer should continue to work with the Watershed Restoration Program to remove any unnecessary road construction, and determine where roads can be closed or decommissioned to reduce road density.

Road segment FID 198 was identified for removal from the transportation plan due to stream adjacency. The road segment is located in a swale, and field assessment of the segment identified notable rill erosion in the road prism.

Road segment FID 469 was identified for removal from the transportation plan due to stream adjacency. After field evaluation between departments, it was determined that road use would not damage aquatic resources if the road were insloped and ditched, to prevent sediment transport to the adjacent stream, and a tank trap was installed at the conclusion of the sale to prevent continued use.

Road segment FID 155 is adjacent to a wetland. However, due to localized topography and vegetation, the road can be used without detriment to aquatic resources if the road is insloped and ditched, as with segment 469.

Road segment FID 17 is adjacent to a stream and wetland, and crossed the wetland with a failing culvert on the north end. This segment should not be used, as this area can be accessed from the south and north separately. Forestry has agreed to throw this road out and remove the culvert.

Road segment FID 11 is in a wetland, and will be removed from the transportation plan.

Road segment FID 346 is located in a draw, and should not be used. Reconstruction on the north side of the block may occur to allow for access.

Road segment FID 253 and 331 can be used as long as seasonal road restrictions are implemented. These roads should not be used during the spring or fall, when conditions are wettest, and likelihood of sediment transport and resource degradation is high.

ETD has requested road segment FID 280 be tank trapped, removed from the transportation plan, and relocated upslope.

The Forest Roads Engineer provided the following crossing data. ETD has provided input on sizing and installation.

Table 10. Culverts on the project that require replacement.

FID	Existing Size	Proposed Size	Streamstats Size	Fish Passage Required	ETD comments
0	0	24”	30”	Consult FNW	Drainage size suggests 24” would be insufficient, upsize
5	24”	18”	24”	Consult FNW	Replace with correctly installed 24”

Streamstats was used to determine the correct size for all proposed and existing culverts in the project area. If not listed above, identified culverts were correctly sized based on these data. However, if fish passage is determined to be necessary based on consultation with CCT Fish and Wildlife representatives, resulting in the need for a larger crossing structure, that determination should supersede this guidance. Additionally, correctly sized existing culverts may be incorrectly installed, resulting in a perched outlet, improperly aligned inlet, or other issues affecting the functionality of the structure. If these issues are identified, the crossing structure should be replaced and correctly installed to allow for passage of 100-year flows and prevent the failure of the crossing and road.

Harvest prescriptions and harvest systems also have potential to damage aquatic resources due to heavy equipment impact, and post-logging soil impacts. Several blocks were identified for tethered logging as a harvest system. Tethered logging is not covered in Colville Tribal Code 4-7 Forest Practices; the Colville Business Council developed resolution 2022-695.nrc, stating

> "That the attached regulations be approved and enforced regarding tether assisted logging. The Tribal Code does not include provisions related to tether assisted logging. Due to the risks associated with this activity, a formalized process is necessary. It is further recommended that the Natural Resources division work with the Code Reviser and the Office of the Reservation Attorney to update the Tribal Code to address tether assisted logging. This applies only to existing projects. No new projects proposing tethered logging should be approved before the code is updated."

In the case that CTC 4-7 is not updated prior to initiation of harvest in this sale, all blocks identified to be tether logged should be cable logged. The blocks identified for tethered logging system use were assessed using Web Soil Survey layers identifying soils vulnerable to compaction, erosion, and rutting. Additionally, soils with low saturated hydraulic conductivity were identified. 573 acres were identified as having severe risk of compaction, erosion, rutting, or some combination of the three.

If tethered logging is codified prior to the beginning of this sale, the following restrictions should be adhered to for harvest systems, to reduce damage to soils from compaction, as well as risks to aquatic resources from sediment mobilization and transportation to surface water.

Table 11. Potential blocks that will require seasonal restriction if tethered harvest system is used.

GIS_ID	Proposed Harvest System	ETD Harvest System	Mitigations
314014	TETH	TETH	Seasonal restrictions
314048	TETH	TETH	Seasonal restrictions

Planners and Operators should develop practices that will effectively mitigate for the increased road surface erosion. Such practices should include a plan for permanent road decommissioning to meet the IRMP objectives and comply with CTC Forest Practices Code.

Upon completion of harvest or haul operations the following maintenance & monitoring actions shall be performed:

- Clear all drainage improvements of obstructions
- Stabilize or remove unstable material and forest debris with potential to block drainage improvements
- Repair or replace all damaged drainage improvements to fully restore their function
- Leave road surface in a condition that will prevent subsequent erosion, and keep runoff within natural drainages, by outsloping, removing berms from the outside of roads, providing drain dips, waterbars, rolling grade or other methods

4.4 Fish and Wildlife

Impacts to Fish and Wildlife Resources Alternative A: No Action

The "no action' alternative would not have adverse effects on fish and wildlife habitat in the project area. Leaving the timber intact would allow the area to follow natural succession patterns and would benefit wildlife species both terrestrial and aquatic. Fires and/or insect/disease die offs could affect the project area but the timing and severity of these disturbances is not known. Natural disturbances may even benefit fish and wildlife species by increasing habitat values. Overstocked and diseased stands may show a decline in value for some species of wildlife.

Impacts to Fish and Wildlife Resources Alternative B: Proposed Action

The Proposed Action would have impacts on fish and wildlife species and habitat within the project area. Removal of timber could have negative impacts on wildlife populations that use the habitat in the project area to meet their life requirements. Impacts to the habitat within the project area could include but are not limited to: an increase in soil compaction and ground disturbance, an increase in open road density, an increase and introduction of noxious weeds, the creation of large openings, a decrease in water quality, degradation of instream and riparian habitats, a reduction and loss of large diameter snags, future snags and large diameter downed wood, a deterioration or loss of mature and old growth coniferous forest, a loss of large diameter trees, a decline or loss of wildlife travel corridors, a decrease in hiding, escape and thermal cover, and a reduction in canopy cover.

These changes to the habitat structures and functions within the project area could have effects on a variety of wildlife species. The implementation of this project could decrease effective wintering, calving and summer/fall range for resident and migrant big game species, reduce the amount of suitable habitat for pileated and white headed woodpeckers, reduce the quality and quantity of instream and riparian habitat and impact the ecological function of aspen stands wetlands, seeps, and springs.

Some wildlife and habitats may benefit from the effects of timber management. Opening the forest canopy would encourage the growth of shrubs and forbs. This increases the forage values for big game species and other early seral species. These areas would be utilized as long as nearby hiding/escape cover is retained.

Large regeneration harvests would result in openings that do not provide adequate cover for big game species. This reduction and fragmentation of the habitat would increase the vulnerability of big game to legal and illegal harvest. The impacts of this would be mitigated by reducing block size and establishing reserve patches in areas that would result in openings greater than 600 feet. These patches would be established to provide hiding cover for big game and other wildlife species.

Timber harvesting above 4,000 feet may reduce or eliminate critical lynx habitat components resulting in a loss of effective traveling, foraging or denning habitat. These impacts can be mitigated by stand prescriptions and reducing block size.

Timber harvest would result in a loss and reduction of mature and old growth coniferous forest, future and large diameter snags and large diameter downed wood. This would result in a loss of functional habitat for those species that depend on late seral habitat components such as primary and secondary cavity nesters, bats, and amphibians and reptiles.

Timber harvest would increase ground disturbance and allow for the establishment of noxious weeds that would compete with native vegetation. The loss of native vegetation would reduce habitat quality for desired wildlife species.

Timber harvest has the potential to impact the ecological function of aspen stands, wetlands, springs, and seeps due to soil compaction, excessive ground disturbance, herbicide application, inadequate riparian buffers and other ground and vegetation disturbances. Aspen stands may be regenerated by the ground disturbance of logging practices.

Timber harvest activities near and adjacent to streams would reduce the quality and quantity of instream and riparian habitat that provides important seasonal ranges, travel corridors and

breeding habitat to a high density and diversity of unique or dependent species. Increased sediment delivery to streams would decrease water quality and affect amphibians and other wildlife species that utilize those areas.

Effects of roads and skid trails on wildlife and their habitats include direct loss of habitat, habitat fragmentation, road kill, increased hunting/poaching mortality, increased predation, road avoidance, increased edge, and reduction in the suitability of habitat for use by wildlife (Demers 2006).

The proposed action of the McAllister Forest Management Project falls within 5 of the Reservation WMUs which are: Cache Creek, Capoose Creek, McAllister Creek, Upper San Poil and Lower San Poil. Of those WMU only 3 will have new road construction. Road densities are quantified by WMU and the project combined. Table 12 depicts the current road density for the affected WMUs.

Table 12. Road Density by WMU.

WMU	Roads (mi)	WMU (ac)	WMU (mi^2)	Proposed New Rd (mi)	Post Sale Roads (mi)	Pre-Sale Road Density (mi/mi^2)	Post-Sale Road Density (mi/mi^2)
Capoose Creek	56.4	3,836	5.99	**0.06**	56.46	9.42	**9.43**
McAllister Creek	39.3	2,061	3.22	**0.29**	39.34	12.20	**12.22**
Cache Creek	42.99	5,042	7.87	**0.28**	43.27	5.46	**5.50**

Currently all three WMU's are above the IRMP road density objective. This road density layout is an overestimation of the current road system within the project area. It is unknown if all the roads are drivable, non-drivable, or closed. Wildlife, and Forestry staff will be working together to identify roads to close after harvest operations are completed. Alternative B is recommending .63 miles of new road construction and 37.9 miles of reconstruct.

The CTCR PIRM states that total road density would be reduced to less than 4 mi/ mi^2, with open road density to be reduced to less than 1.5 mi/ mi^2 wherever feasible across the Reservation. Roads not needed for future management activities would be closed, stabilized or obliterated. It is the suggestion of the Fish and Wildlife Department that unnecessary segments and reconstructed roads should be closed to adhere to the PIRM goal of 4.0 mi/mi^2.

Federally Threatened and Endangered Species

The BIA and CTCR Wildlife Biologist determined that the proposed actions and associated activities would have 'No Effect' to threatened or endangered species, or candidate or proposed species, or suitable or critical habitat within the action area.

Mitigation for Fish and Wildlife, Alternative B: "Proposed Action"

Mitigating for the loss and reduction of habitat structures and functions discussed above would minimize the negative impacts to wildlife habitats and species in the McAllister Forest

Management Project Area. The following mitigation efforts are requested by the Fish and Wildlife Department in the case that Alternative B "proposed action" is chosen and implemented.

Juvenile Northern Goshawks were spotted within the McAllister sale, but the nest was not found. A 750ft buffer is required on all Northern Goshawk nests and to protect fledgling activities, disturbance activities would be avoided within .5 miles from March 1st through Aug 31st. See Appendix B for location of buffer.

Blocks 314017, 314027, 314018, 314029 and 3140009 scheduled treatment is a broadcast burn. These blocks approximate acreage is 440. The wildlife program recommends splitting this broadcast burn into at least two different years and a spring time frame. This allows for regrowth of forage and cover, while not consuming all forage in one year.

Blocks located within the Upper Sanpoil River WMU and Lower Sanpoil WMU are in close proximity to the Sanpoil River and bald eagle nesting nest sites are likely. If a nest site is found contact the San Poil District Biologist immediately.

Wildlife buffers create travel corridors for wildlife, along with maintaining blocks of habitat designed as thermal cover. An area of approximately 5 acres has been identified within the project area to act as a wildlife buffer to help offset impacts from timber management (Appendix B).

If at any time during harvest a bald or golden eagle nest is found, cease work within .25 miles of nest and contact the District Wildlife biologist; all timber harvest is prohibited within 660 feet of active bald eagle nests (Klock 2001).

If at any time during harvest a Northern goshawk, great gray owl or other raptor nest and/or territory are thought to have been found, cease work within 750 feet and please contact the District Wildlife biologist.

Significant wildlife sightings should be reported to the CTCR District Wildlife Biologist for assessment and review.

All lynx tracks, sightings, or dens should be reported to the CTCR District Wildlife Biologist for immediate assessment and review.

Any blocks that would require wildlife corridors per CTCR Code should be setup to allow for natural movement between seasonal and daily habitats.

Snags in harvest units should be retained in clumps with their associated understory vegetation intact to insure their retention after site preparation. Green leave trees would be identified and retained as future snags in all areas. The majority of large diameter trees should be left standing

It is suggested all native fruit bearing shrub and tree species should be protected and retained.

Leaving more than the required 2 snags per acre would help mitigate some of the losses of large woody debris and recruitment trees.

All large diameter woody debris should be left on the ground to provide habitat for a wide range of species.

All wetlands should be protected with maximum RMZ lengths and should all be protected from equipment entry. RMZs should be measured out from the edge of the riparian vegetation instead of from the ordinary high water mark.

Culverts should be placed at a gradient of less than 2% unless the terrain and profile of the stream doesn't allow for it. All culverts should be fortified at the entry to the culvert as well as the outlet to prevent erosion near the placement of the pipe. Culverts should be countersunk to allow deep enough water for fish to pass through and fill material should be placed in culvert to mimic the natural stream components and help juvenile fish get up the stream channel.

Implementation of bank stabilization, sediment traps and road surface improvements are encouraged to decrease risk of sediment delivery and runoff into surrounding watersheds.

To reduce soil compaction and ground disturbances seasonal restrictions and slash mats should be used to protect sensitive and/or highly erodible soils.

Areas where there is considerable soil disturbance should be planted with native seed to reduce encroachment and establishment of noxious weeds, ie landings and highly disturbed skid trails.

With the construction of new roads, cut banks should be kept to a minimum due to the tendency of water to rise to the surface when there is an interruption of the hydrologic environment. Water seeping out of cut banks leads to erosion of road surfaces and ultimately sediment delivery to streams.

Minimize the amount of use on stream adjacent roads and prioritize them for permanent closure.

Infrastructure (culverts/bridges) should allow for passage of all life stages of fish, and for water, sediment, and wood/debris during 100 year flow events.

In order to reduce disturbance, harassment and increased hunting pressure, all roads that are not considered main access routes should be closed following the project. Multilayered cover should be left along roads with high vehicular use.

4.5 Cultural Resources

Impacts to Cultural Resources Alternative A: No Action

Although there may be a number of direct and indirect effects to the Reservation's resources from the implementation of Alternative A, it is important to recognize that cultural resources are, for the most part, non-renewable resources. The 'No Action' alternative would have a number of various effects to the known cultural resources identified within the project area.

The historic exclusion of fire on the Reservation has resulted with an overabundance of vegetation. Although Alternative A would leave the timber intact and allow for natural succession patterns; overstocked and diseased stands have increased ladder fuels which must be addressed by current management practices.

Potential impacts of Alternative A include vegetation encroachment to sites which exhibit surface features. This encroachment may reduce visibility of the site, potentially affecting its integrity and increasing the likelihood of adverse effects to it from wildland or prescribed fire. Invasive non-native plant species within this area would likely perpetuate and increase, competing with native plant species of traditional and cultural significance. The 'No Action' alternative may also cause physical damage to sites from snags or trees falling upon them,

dismantling, destroying or otherwise impacting surface features. Fallen trees may also expose buried subsurface cultural materials, which otherwise would have remained intact.

Impacts to Cultural Resources Alternative B: Proposed Action

There are currently eight archaeological sites, two TCPs, fourteen historic Indian allotments, one historic Indian cemetery and one GLO historic road recorded in the McAllister Forest Management Project Area of Potential Effect (APE). Seven archaeological sites and one historic Indian cemetery would require mitigation for protection.

These sites may be considered eligible for the National Register of Historic Place, as described in 36 CFR Part 60.4. The implementation of Alternative B would result in adverse or significant effects on the eight archaeological sites and one cemetery eligible for the National or Colville Registers identified within the APE unless mitigation measures are taken to protect these sites. The other resources within and adjacent to the McAllister Forest Management Project Area are outside the APE and would not be affected by the proposed project.

Mitigation for Cultural Resources

Eleven archaeological sites, one historic cemetery, fourteen historic Indian allotments, four TCPs and three GLO historic properties have been identified within the McAllister Forest Management Project Area. Eight archaeological sites, two TCPs, fourteen historic Indian allotments and one GLO historic road are within the APE of the project. The Resource Archaeologist has worked with SPFD to mitigate the effects of Alternative B and would coordinated with the Timber Sales Officer (TSO) and other SPFD officials during project implementation to insure that the proper steps are taken to protect these significant cultural resources. Mitigation measures proposed for the protection of cultural resources identified within the project area include, but are not limited to, the following: 1) Great care is taken to not destroy or damage the components of archeological sites in Blocks 312-055, 312-042, 312-058, 314-008 and 312-072. 2) Do not destroy or damage fence surrounding the cemetery in block 312-048 and all work would cease for funeral/memorial services in respect for the families. All other resources should not be affected project implementation. The Resource Archaeologist will coordinate with the Timber Sales Officer (TSO) and others working in the McAllister Forest Management Project Area regarding the steps to be taken to identify and report cultural resources. In the event that additional cultural resources are found, the TSO shall insure that all work stops in the vicinity of the find, that steps are taken to protect the find, and that the Resource Archaeologist is called immediately. No work shall resume until the Tribal Historic Preservation Officer (THPO) has approved a management plan.

4.6 Range Management

Impacts to Range Resources Alternative A: No Action

This alternative would have no impact on the current ecological condition as no mechanical disturbance activity would happen. Although, no action would also not correct the identified forest health issues the project would address.

Impacts to Range Resources for Alternative B: Proposed Action

Forest understory recovery after logging activities is a resource concern. The area where the project blocks are located range from 11 to 17 inches of precipitation annually with differences most likely due to elevation and aspect. This range of average annual precipitation will likely

cause natural understory recovery to be variable. This area is highly variable with respect to forest ecological sites, there are 15 NRCS forest ecosites represented in the blocks of this sale with Douglas fir/common snowberry representing well over 1/3 of the project block area. Other understory variations noted are Idaho fescue, and pinegrass with brush species mallow ninebark and kinnikinnick also associated with the Douglas fir sites. Ponderosa pine ecosites are found primarily in the southeast portion of the project area probably due to lower elevation and southern aspect along that portion of Cache Creek Rd. Idaho fescue, and bluebunch wheatgrass are the primary grass species in the ponderosa pine sites. Throughout the project area pinegrass appears to be the most represented grass species and being a highly resilient species will likely not need help recovering except in the most highly disturbed sites. Columbia brome generally occurs along with pinegrass and blue wildrye can be found in wetter sites. Depending on circumstances these species may need assistance while recovering becoming more competitive against invasive weed species. These differences in plant communities and their ecology would need to be considered if seeding for highly disturbed sites is desired. Landings, skid trails, roads, and pile burns can result in a high degree of soil disturbance which can create a competitive advantage for invasive plants over more desirable plants. The dryer lower elevation sites would be of concern as reduced moisture can increase recovery time of desirable species allowing more time for invasive species to take hold. If monitoring determines a need, inputs in the form of herbicide treatment and native plant seeding should be considered to assist understory recovery. Intermediate wheatgrass and Siberian wheatgrass should not be used as they are nonnative and highly competitive. If something is needed to quickly provide ground cover, there are alternatives to consider. If the project manager determines a need for seeding or spraying activities the Land Operations department can offer suggestions for herbicide treatment and seed type if assistance is needed.

Invasive Plants

Logging and related activities can introduce new invasive species to a site via uncleaned equipment and soil disturbing activities or cause currently present invasive species to spread more rapidly. The surrounding project area contains the following weed species: diffuse and spotted knapweed, scotch thistle, dalmatian toadflax, yellow toadflax, sulfur cinquefoil, common St. Johnswort, hoary alyssum, rush skeletonweed, and likely others that haven't been recorded. Land Operations recommends the following: cleaning equipment prior to using on site, washing equipment in a centralized area, re-seeding heavily disturbed sites such as skid trails and stacking sites, the use of biological controls on large weed infestations and herbicides as needed primarily along roadsides. If borrow pits or fill material are used from offsite, it is recommended that these materials be weed free to reduce the spread of invasive species. The Land Operations Program recommends that loggers, Forestry and Land Operations/Range staff work together to reduce the amount of weed infestations and treat disturbed areas post harvests. Seeding is recommended in highly disturbed areas to reduce the amount of invasive species regrowth following road closures. Recommend use of an approved seed mix that would be highly competitive with currently present invasive species.

4.7 Cumulative Impacts

Cumulative impacts are addressed in the FEIS for the Colville Indian Reservation Integrated Resource Management Plan (Klock 2000). Activities in this area that can result in cumulative impacts include domestic cattle grazing, fire management activities, road construction and forest management activities. These activities combined could result in soil disturbance often

associated with soil degradation and increased sediment delivery to surface waters. The vegetation removal can also decrease soil stability and lead to increased water temperatures. All of these impacts can impact resident fish and aquatic life. These activities could also result in establishment of noxious weeds in the area, which can push out native species and decrease wildlife habitat quality.

5.0 List of Preparers

Name	Contributions
Spus Wilder	Forestry
Tyrone Rock	Soils
Urisha Marconi	Fuels/Fire Management
Ossian Laspa	Fish and Wildlife
Dennis Moore	Fish and Wildlife
Kerry Wilson	Range/Noxious Weeds
Charlotte Axthelm	Hydrology
Stacy King	Hydrology
Guy Moura	History/Archaeology
Amanda Hoke	History/Archaeology
Chasity Swan	Editor

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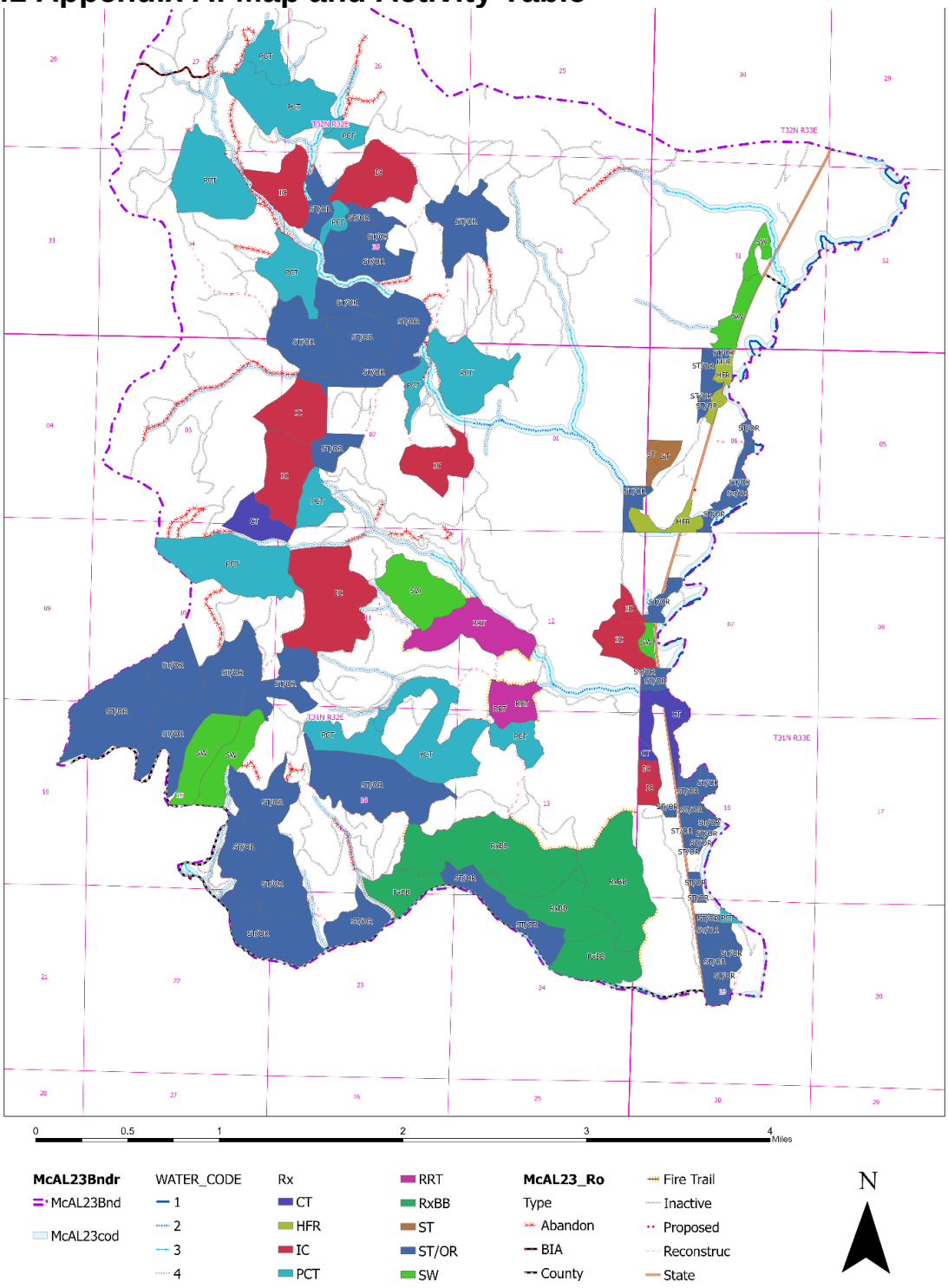
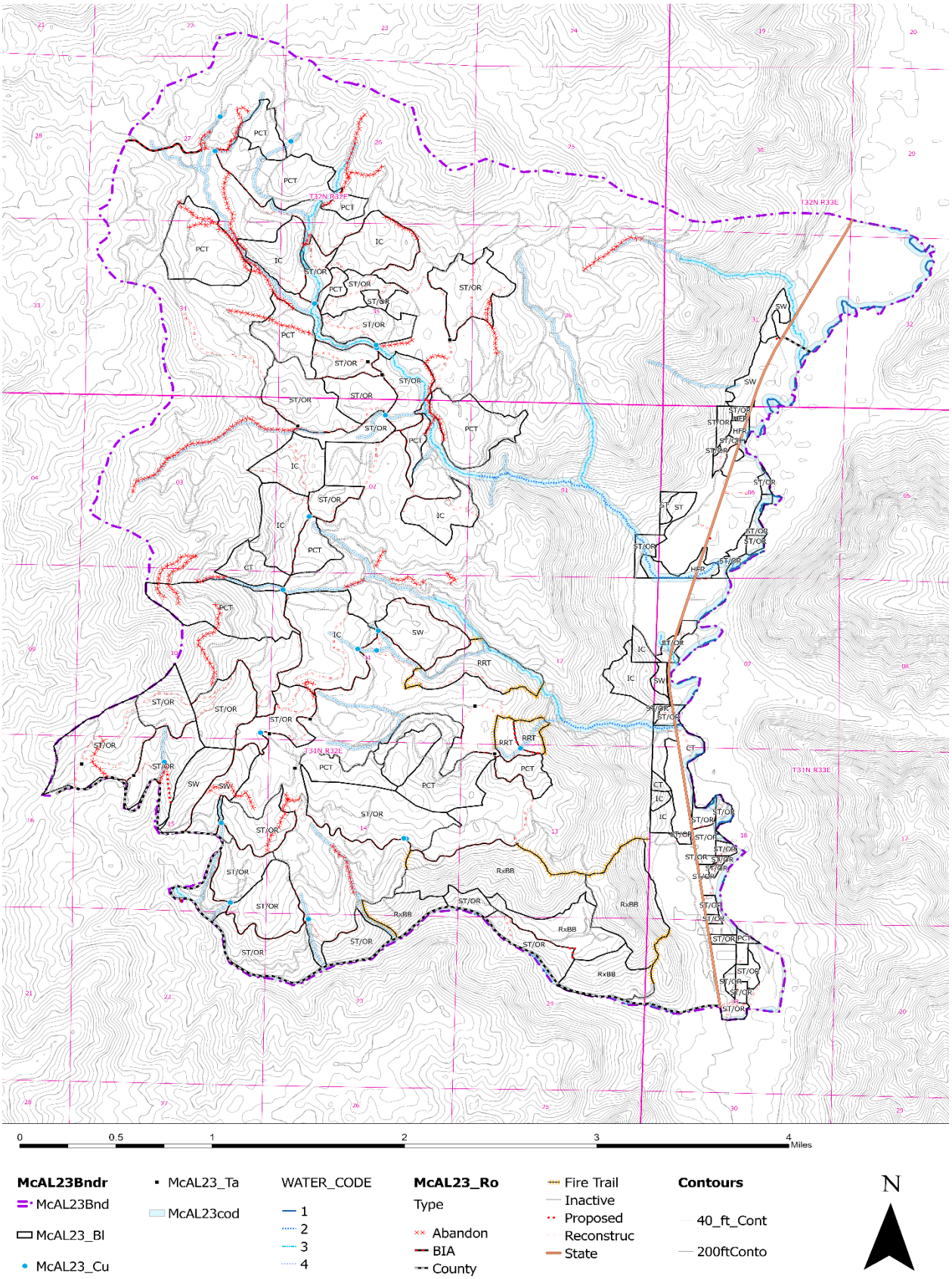
7.0 Appendices

7.1 Appendix A: Map and Activity Table

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Comp	Block	Acres	Rx	SkidSys	WholeTree	SlashRx	SitePrepRx	IntrmdRx	SeasnlRest	Comments	P3comments
313	035	33.4	CT	T	Yes	L&S					
313	038	67.3	IC	T	Yes	L&S		PCT		PCT = Fuels/Preparedness	
312	005	38.8	IC	HELI	Yes	L&S					
312	053	79.2	ST/OR	TETH	Yes	L&S		PCT		PCT next entry/CT in 2053	Req Rsrv Patch
312	055	54.0	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	056	38.6	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	058	27.2	SW	T	Yes	P&B	MSP			Partial Mitigation Land	H&A protection
312	062	49.9	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	069	55.3	PCT			L&S		Yes			
312	071	6.3	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	072	14.0	SW	T	Yes	P&B	MSP		W/S	Partial Mitigation Land	
312	128	94.0	PCT			L&S		Yes			Conventional PCT
312	117	31.4	PCT			L&S		Yes			
312	028	49.2	IC	T	Yes	L&S					
312	039	57.7	IC	TETH	Yes	L&S					H&A protection
312	042	27.5	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	H&A protection
312	049	82.1	PCT			L&S		Yes			
312	078	31.7	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	Req Rsrv Patch (near 312071 W bndry)
312	079	11.4	PCT			L&S		Yes			
312	083	74.4	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	087	25.7	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	092	53.3	IC	T	Yes	L&S		PCT			
312	095	70.3	IC	T	Yes	L&S		PCT			
312	101	99.2	PCT			L&S		Yes			
312	126	5.6	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
313	001	27.9	PCT			L&S		Yes			
313	002	39.0	PCT			L&S		Yes			
313	009	17.7	RRT	T	Yes	Slash	BB				
313	016	56.3	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	RMZs as Rsrv Patches
313	021	74.1	RRT	TETH	Yes	Slash	BB				
313	026	70.1	SW	T	Yes	P&B	MSP				
313	030	116.3	PCT			L&S		Yes			
313	029	30.5	PCT			L&S		Yes			
314	007	10.5	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	008	26.5	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	H&A protection
314	014	78.7	ST/OR	TETH	Yes	L&S		PCT	W/S	PCT next entry/CT in 2053	Inoperable as Rsrv Patch
314	021	70.3	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	any RMZ for Rsrv Patch
314	025	46.7	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	Req Nest Buffer near/off RMZ (500'-750')
314	035	13.5	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	040	10.3	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	045	127.1	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	Req Rsrv Patch
314	046	52.6	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	Req Nest Buffer near/off RMZ (500'-750')
314	047	53.2	SW	TETH	Yes	P&B	MSP				
314	048	70.5	ST/OR	TETH	Yes	L&S		PCT	W/S	PCT next entry/CT in 2053	Req Rsrv Patch (wider RMZ)
314	049	114.2	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	Old RMZ as Req Rsrv Patch
314	050	48.5	ST/OR	TETH	Yes	L&S		PCT		PCT next entry/CT in 2053	Req Rsrv Patch (wider RMZ)
313	037	23.5	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	040	16.7	PCT			L&S		Yes			
313	010	105.5	PCT			L&S		Yes			
313	020	69.0	ST/OR	T	Yes	L&S		PCT	W/S	PCT next entry/CT in 2053	RMZ as Rsrv Patch
313	027	132.3	IC	T	Yes	L&S		PCT			Extend South and Central RMZs for Rsrv Patches
314	009	62.5	RxBB	DOZER			FRLN				
314	18	68.9	RxBB	DOZER			FRLN			protect regen during RxBB	
314	027	166.5	RxBB	DOZER			FRLN				
314	029	117.7	RxBB	DOZER			FRLN				
314	016	38.8	ST/OR	TETH	Yes	L&S		BB PCT		include in RxBB	
312	103	15.0	PCT			L&S		Yes			
312	016	20.6	HFR			L&S		PCT			
312	003	8.5	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	007	10.6	IC	HELI	Yes	L&S					
312	048	12.9	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	H&A protection/restriction
312	017	9.5	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	019	13.7	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	023	8.8	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	024	12.6	ST	T	Yes	P&B	MSP				
313	312	34.8	CT	T	Yes	L&S					
314	004	5.0	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	006	5.3	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	080	9.8	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	013	3.5	PCT			L&S		Yes			
314	206	2.2	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	202	3.5	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	203	5.0	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	204	3.3	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	037	7.6	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	339	12.5	IC	HELI	Yes	L&S					
314	341	5.7	IC	HELI	Yes	L&S					
314	015	2.6	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	020	4.8	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	201	1.6	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	042	3.2	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
314	207	2.7	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	031	4.1	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	037	7.8	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	043	14.2	HFR			L&S		PCT			
312	045	9.7	ST/OR	HELI	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	044	0.8	HFR			L&S		PCT			
314	047	44.5	SW	T	Yes	P&B	MSP				Req Nest Buffer near/off RMZ (500'-750')
314	019	37.8	ST/OR	TETH	Yes	L&S		PCT		PCT next entry/CT in 2053	
313	009	17.1	RRT	TETH	Yes	Slash	BB				
313	312	4.7	CT	HELI	Yes	L&S					
312	003	2.3	ST/OR	HELI	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	005	7.8	SW	T	Yes	P&B	MSP				
312	024	6.2	ST	HELI	Yes	L&S					
312	037	0.8	ST/OR	HELI	Yes	L&S		PCT		PCT next entry/CT in 2053	
312	053	46.4	ST/OR	T	Yes	L&S		PCT		PCT next entry/CT in 2053	Req Rsrv Patch
314	017	39.5	RxBB	DOZER			FRLN				
314	019	17.3	ST/OR	TETH	Yes	L&S		BB PCT		include in RxBB	

T = Tractor (ground-based)
TETH = Tether-Assisted (steep slope ground-based)
HELI= Helicopter
P&B = Pile and Burn
PCT = Pre-commercial Thin
L&S = Lop and Scatter
MSP = Mechanical Site Prep
BB = Broadcast Burn
RxBB = Prescribed Broadcast Burn
FRLN = Fireline
DOZER = Bulldozer

7.2 Appendix B: Consultation

REQUEST FOR COMMENTS FROM THE
CONFEDERATED TRIBES OF THE COLVILLE RESERVATION
TRIBAL HISTORIC PRESERVATION OFFICER (THPO)
ON
DETERMINATION OF EFFECT

Project Name: 22pp41 McAllister Creek Forest Management Project.

Proponent(s): San Poil Forestry District, Colville Confederated Tribes

Legal Description:
T 32N, R 32E, Sec(s) 26, 27 and 34-36;
T 32N, R 33E, Sec(s) 29-32;
T 31N, R 33E, Sec(s). 06, 07, 18 and 19;
T 31N, R 32E, Sec(s). 01-03, 10-15 and 22-24

The sections of 36 CFR 800 that address effects to historic properties have been applied to the proposed undertaking. This has been done in order to determine if any effects might occur to properties eligible for, or listed on, the National Register of Historic Places or the Colville Register of Historic Places. I have determined that the proposed undertaking will have:

____ **No effect**, the undertaking will not effect historic properties

XX **No adverse effect**, the undertaking will affect one or more historic properties, but the effect will not be harmful

____ **Adverse effect**, the undertaking will harm one or more historic properties

Signed: Chasity Swan (responsible agency official) Title: IRMP Coordinator Date: 11/23/2022

Provide documentation to support the Determination of Effect for Tribal Historic Preservation Officer review and comment.

FOR TRIBAL HISTORIC PRESERVATION OFFICER USE ONLY

I concur with the determination of the Responsible Agency Official. 22pp41 McAllister Creek Forest Management Project

Comments/Conditions of Approval:

Implementation of the project is not expected to result in any effects to cultural resources. Mitigation efforts will be implemented in the event of an inadvertent discovery of cultural resources.

Signed: [signature] (Tribal Historic Preservation Officer) Guy Moura Date: 11/23/2022

The Confederated Tribes of the Colville Reservation

MEMORANDUM

Thursday, December 15, 2022

TO: Chasity Swan, IRMP Coordinator

FROM: Ossian Laspa, San Poil Wildlife Biologist

SUBJECT: 22pp41 Mcallister 2023 Forest Management Project

Hello Chasity,

After reviewing PPF #22pp41 and related documents regarding Mcallister Forest Management Project, there are no projected impacts that would directly or indirectly affect any of the threatened/endangered listed species or their critical habitats at the proposed location. These species include: Canada Lynx (*Lynx canadensis*), Grizzly Bear (*Ursus arctos horribilis*), Yellow-billed Cuckoo (*Coccyzus americanus*), and Bull Trout (*Salvelinus confluentus*).

Thank You

Ossian Laspa
Wildlife Biologist
509-634-2434

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington Fish And Wildlife Office
510 Desmond Drive Se, Suite 102
Lacey, WA 98503-1263
Phone: (360) 753-9440 Fax: (360) 753-9405

In Reply Refer To:
Project Code: 2023-0017108
Project Name: McAllister Timber Sale

November 17, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

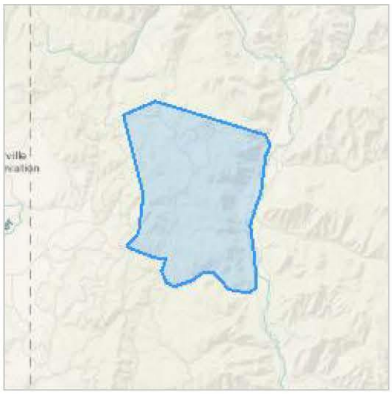
This species list is provided by:

Washington Fish And Wildlife Office
510 Desmond Drive Se, Suite 102
Lacey, WA 98503-1263
(360) 753-9440

Project Summary

Project Code: 2023-0017108
Project Name: McAllister Timber Sale
Project Type: Forest Management Plan
Project Description: Timber Sale
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@48.21161895,-118.74150261981697,14z



Counties: Ferry County, Washington

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Canada Lynx *Lynx canadensis* Population: Wherever Found in Contiguous U.S. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Bull Trout *Salvelinus confluentus* Population: U.S.A., conterminous, lower 48 states There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8212	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

Critical habitats

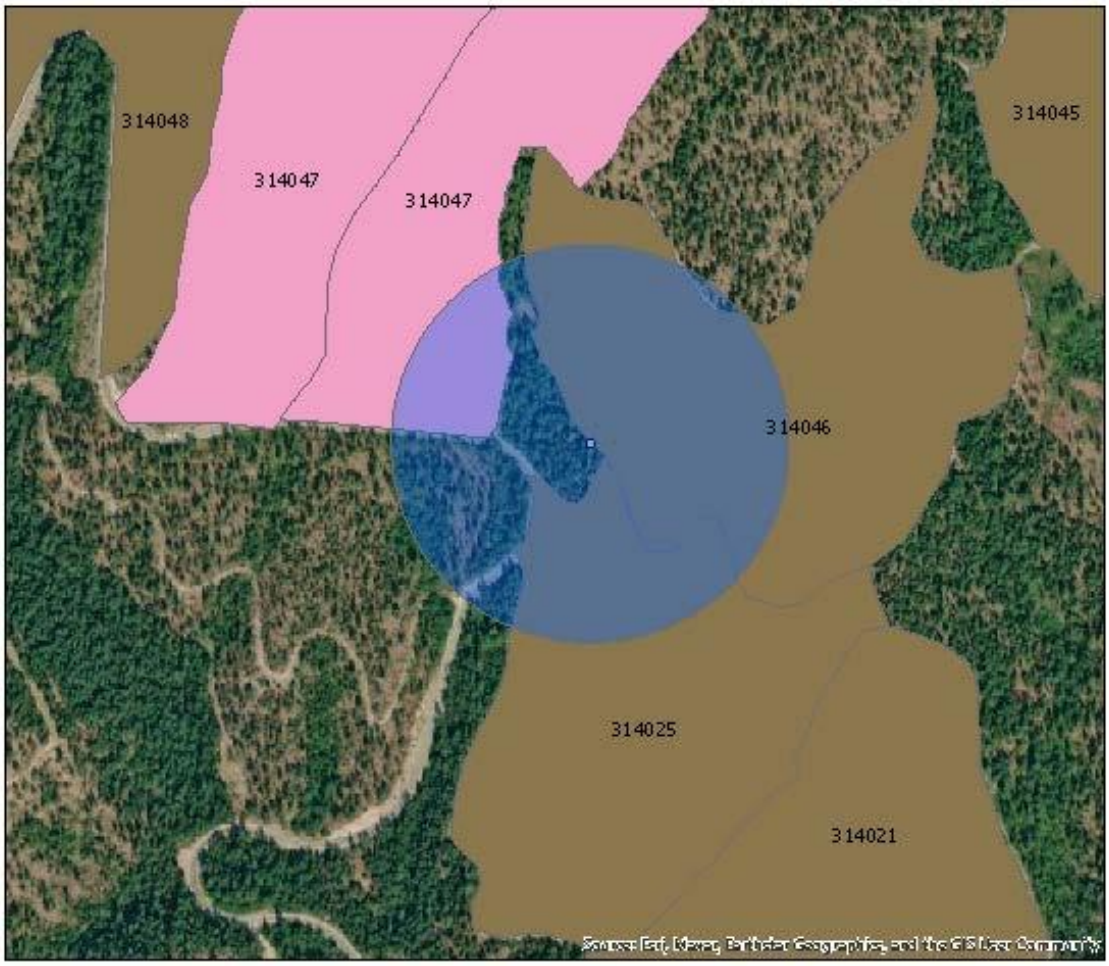
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

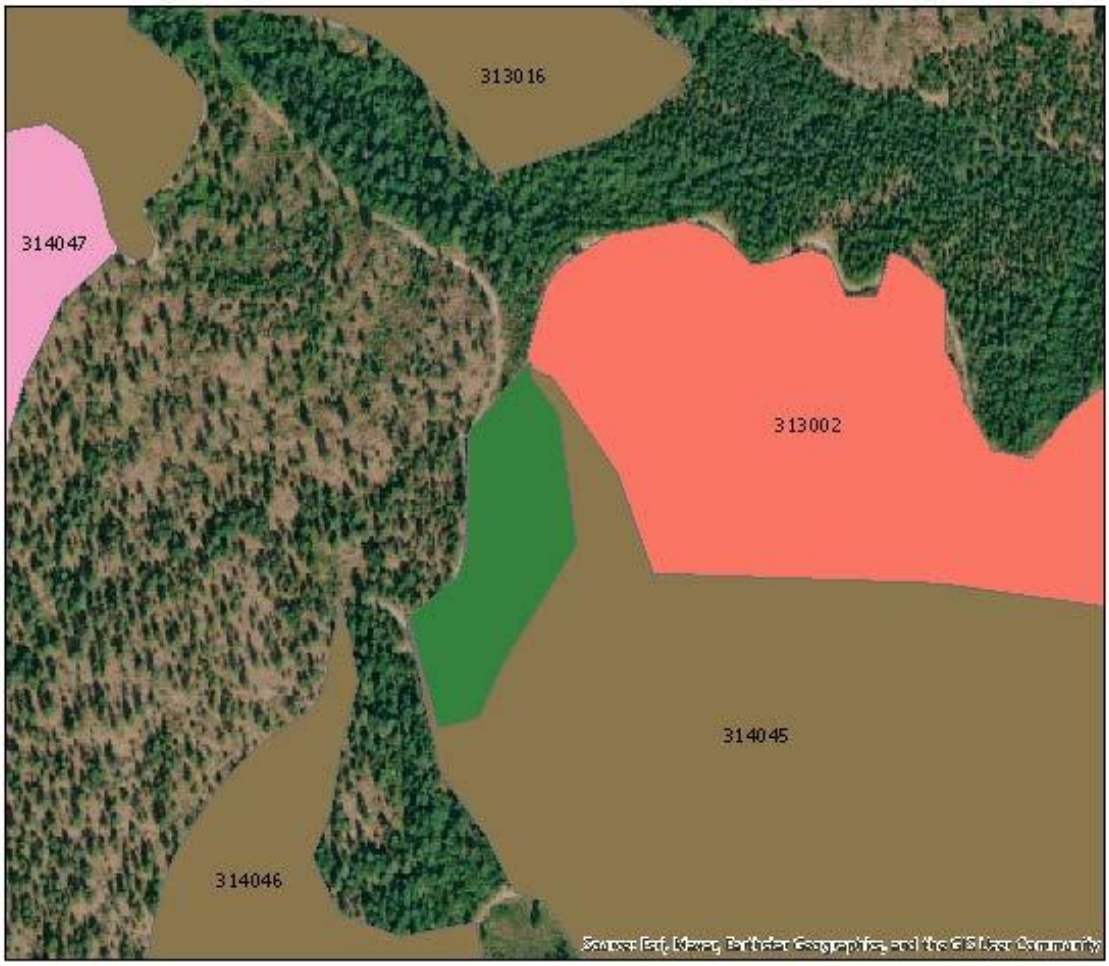
IPaC User Contact Information

Agency: Confederated Tribes of the Colville Reservation
Name: Ossian Laspa
Address: 21 Colville St
City: Nespelem
State: WA
Zip: 99155
Email ossian.laspa.fnw@colvilletribes.com
Phone: 5096342434

Lead Agency Contact Information

Lead Agency: Bureau of Indian Affairs


314048
314047
314047
314045
314046
314025
314021
N
0 0.05 0.1 0.2 Miles
GoshawkNest_Buffer
GoshawkNest
McAllister Blocks
Rx
CT
HFR
IC
PCT
RRT
RxBB
ST
ST/OR
SW
<all other values>


313016
314047
313002
314045
314046
N
0 0.03 0.07 0.13 Miles
Wildlife Corridor
McAllister Blocks
Rx
CT
HFR
IC
PCT
RRT
RxBB
ST
ST/OR
SW
<all other values>

7.3 Appendix C: Preliminary Transportation Analysis

The Confederated Tribes of the Colville Reservation
Office of Environmental Trust
Watershed Restoration Program
P.O. Box 150, Nespelem, WA 99155 (509) 634-2261

Thursday, March 24, 2022

To: **Mike Langstaff, San Poil Forestry Forester**
Spusmen Wilder, San Poil Forestry Forester
Randy Friedlander, San Poil Forestry Roads Engineer
Dave Clark, San Poil Forestry District Officer

cc: **Phil Wapato, Assistant Forest Manager**
Darnell Sam, NPS Management Coordinator
Joseph Ezell, Restoration Program Manager
Stacy King, Wetland Specialist
Dennis Moore, Resident Fish Biologist
Rose Piccinini, Wildlife Biologist
Chasity Swan, IRMP Coordinator

From: **Charlotte Axthelm, Watershed Analyst**

Subject: **McAllister Timber Sale 2023 Preliminary Transportation Memo**

Mike, Spus, Randy, and Dave
I have attached a map showing roads and crossings in the McAllister Timber Sale project area that have the potential to impact water quality, stream habitat and riparian management zones. This identification should be considered **preliminary** and used to guide the transportation plan included in the McAllister Timber Sale PPF.

Important features to note in regards to the McAllister transportation plan include the following:

- Any current or proposed stream crossings will need to be reviewed by CCT Fish & Wildlife and CCT Environmental Trust to ensure they are appropriately sized and installed for fish/aquatic organism passage and site specific hydrologic flows.
- There are road segments that need to be field assessed for watershed impact. The attached map identifies existing road segments in Riparian Management Zones (RMZs), wetlands, floodplains, or swales, but is not necessarily a comprehensive assessment of every road with the potential to detrimentally affect water or soil resources. Roads within the project area intended for use should be assessed on a case-by-case basis.

Additionally:

- The Forest Practices Code and Hydraulic Practices Code—along with specific site conditions—will determine final usage of road segments and stream crossings or treatments necessary to mitigate impacts to Tribal resources.
- This preliminary identification includes the entire sale area and does not account for specific blocks that may be used as part of the sale.
- Determine which crossings and road segments overlap with the sale and proposed haul routes and identify what steps will be taken to address potential impacts to Tribal resources from those crossings and segments.
- As the planning process continues, it is possible that blocks and/or treatments will change and these road segments and stream crossings will need to be reviewed to ensure resource protection.

The Watershed Restoration Program supports timber management and a road network that allows access for forest practices, wildfire fighting, ranching and membership hunting, fishing, gathering, firewood cutting, etc. Each timber sale allows us the opportunity to improve and maintain roads that are needed for management and membership while addressing those that are impacting Tribal waters and other resources. Let me know if you have any questions regarding this preliminary identification.

Thanks,
Charlotte

Shapefiles are for entire timber sale area. Please refer to the WRKNG_ID in the attribute table for each road segment.

Roads—3 shapefiles

These are a combination of the Duck Creek data and Forestry's LiDAR roads data. They have been updated with any info from ETD's projects and/or inventories.

These roads **have the potential** to impact water quality and quantity. Forestry will need to ensure they meet standards for continued use or reconstruction.

Identify which road segments in attached shapefiles overlap with Forestry's planned transportation network.

1) McAllister2023PermClosed

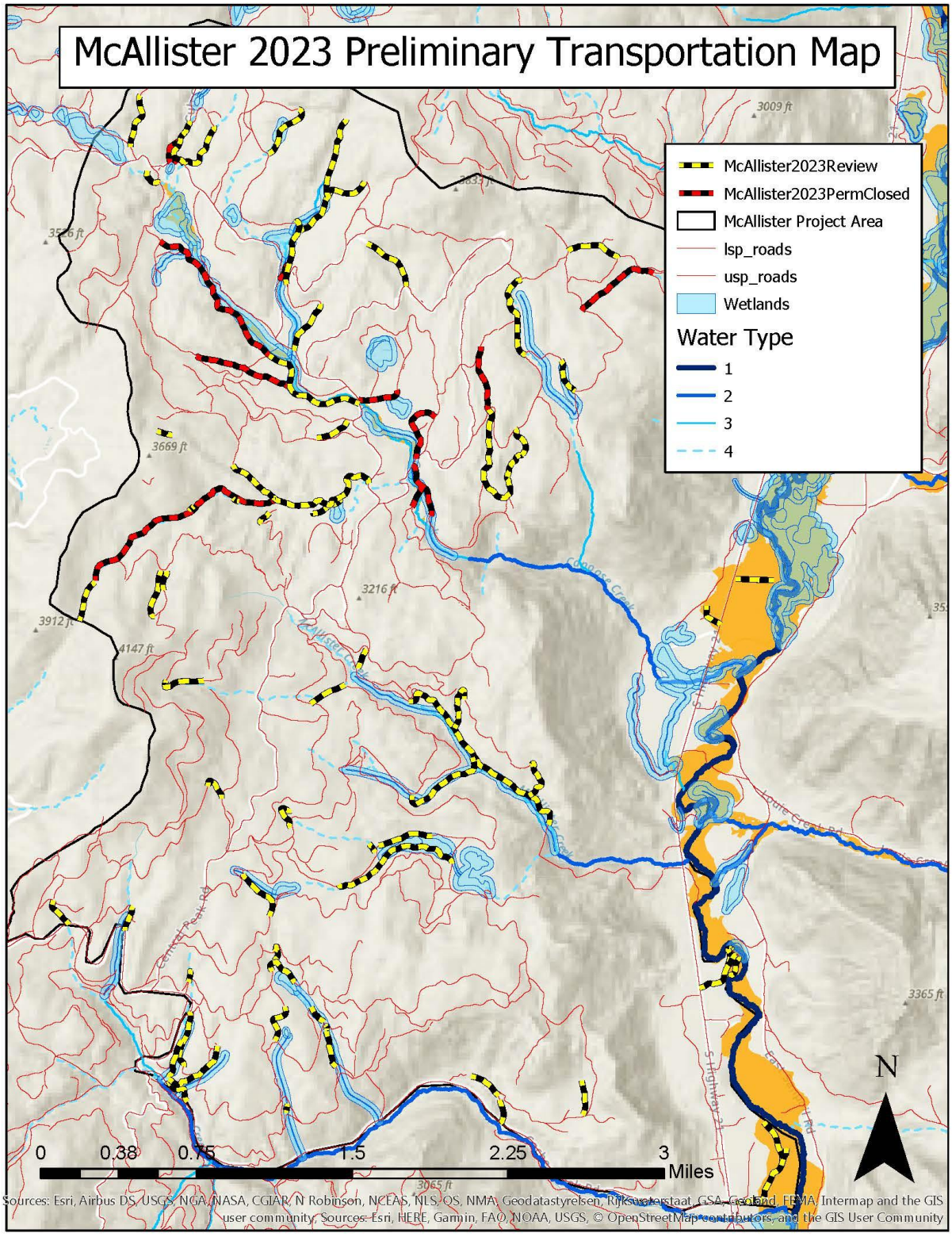
Previously restored/will be restored

a. These alignments are not available for reconstruction.
b. New construction should not follow these alignments.
c. All of these segments have been through 3P and have received approval from the 3P team for permanent closure.

2) McAllister2023Review

These roads have the potential to impact water quality if reopen or reconstructed. Forestry will need to field verify to ensure that Forest Practice Codes are met.

a. Possible mitigation treatments:
    i. Abandon road
    ii. Realign road
    iii. Erosion control
        1. Drivable dips, water bars, out-sloping, berm removal, ditching, cross drains, rock-armoring, gravel surfacing, magnesium chloride, realignment, post-sale closure, etc.


McAllister 2023 Preliminary Transportation Map
McAllister2023Review
McAllister2023PermClosed
McAllister Project Area
lsp_roads
usp_roads
Wetlands
Water Type
1
2
3
4
3009 ft
3669 ft
3216 ft
3912 ft
4147 ft
3365 ft
3065 ft
N
0
0.38
0.75
1.5
2.25
3
Miles
Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

7.4 Appendix D: Army Corp of Engineers BMPs

Road Exemption Summary

FARM, FOREST, OR TEMPORARY MINING ROADS

Pursuant to Section 404 of the Clean Water Act (33 USC 1344) and Federal Regulations (33 CFR 323.4), certain discharges have been exempted from requiring a Section 404 permit. Included in this exemption is construction or maintenance of farm roads, forest roads, or temporary roads for moving mining equipment. To meet this exemption, such roads must be constructed and maintained in accordance with the best management practices (BMPs) to assure that flow and circulation patterns and chemical and biological characteristics of waters of the United States are not impaired, that the reach of the waters of the United States is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized.

The following best management practices must be followed in order for the activity to be exempted from requiring a permit:

(1) Permanent roads (for farming or forestry activities), temporary access roads (for mining, forestry, or farm purposes) and skid trails (for logging) in waters of the U.S. shall be held to the minimum feasible number, width, and total length consistent with the purpose of specific farming, silvicultural or mining operations, and local topographic and climatic conditions.

(2) All roads, temporary or permanent, shall be located sufficiently far from streams or other water bodies (except for portions of such roads which must cross water bodies) to minimize discharges of dredged or fill material into waters of the U.S.

(3) The fill shall be bridged, culverted, or otherwise designed to prevent the restriction of expected flood flows.

(4) The road fill shall be properly stabilized and maintained during and following construction to prevent erosion.

(5) Discharges of dredged or fill material into waters of the United States to construct a road fill shall be made in a manner that minimizes the encroachment of trucks, tractors, bulldozers, or other heavy equipment within waters of the U.S. (including adjacent wetlands) that lie outside the lateral boundaries of the fill itself.

(6) In designing, constructing, and maintaining roads, vegetative disturbance in the waters of the U.S. shall be kept to a minimum.

(7) The design, construction, and maintenance of the road crossing shall not disrupt the migration or other movement of those species of aquatic life inhabiting the water body.

(8) Borrow material shall be taken from upland sources whenever feasible.

(9) The discharge shall not take, or jeopardize the continued existence of, a threatened or endangered species as defined under the Endangered Species Act, or adversely modify or destroy the critical habitat of such species.

(10) Discharges into breeding and nesting areas for migratory waterfowl, spawning areas, and wetlands shall be avoided if practical alternatives exist.

(11) The discharge shall not be located in the proximity of a public water supply intake.

(12) The discharge shall not occur in areas of concentrated shellfish production.

(13) The discharge shall not occur in a component of the National Wild and Scenic River System.

(14) The discharge of material shall consist of suitable material free from toxic pollutants in toxic amounts.

(15) All temporary fills shall be removed in their entirety and the area restored to its original elevation.

A Section 404 permit is required if either of the following occurs:
(1) Any discharge of dredged or fill material resulting from the above activities which contains any toxic pollutant listed under Section 307 of the Clean Water Act shall be subject to any applicable toxic effluent standard or prohibition, and shall require a permit.

(2) Any discharge of dredged or fill material into waters of the United States incidental to the above activities must have a permit if it is part of an activity whose purpose is to convert an area of the waters of the United States into a use to which it was not previously subject, where the flow or circulation of waters of the United States may be impaired or the reach of such waters reduced. Where the proposed discharge will result in significant discernible alterations to flow or circulation, the presumption is that flow or circulation may be impaired by such alteration. For example, a permit will be required for the conversion of a wetland from silvicultural to agricultural use when there is a discharge of dredged or fill material into waters of the United States in conjunction with construction of dikes, drainage ditches, or other works or structures used to effect such conversion. A discharge which elevates the bottom of waters of the United States without converting it to dry land does not thereby reduce the reach of, but may alter the flow or circulation of, waters of the United States.

If the proposed discharge satisfies all of the above restrictions and the best management practices, it is automatically exempted and no further permit action from the Corps of Engineers is required. If any of the restrictions of this exemption will not be complied with, a permit is required and should be requested using ENG Form 4345 (Application for a Department of the Army permit). A nationwide permit authorized by the Clean Water Act may be available for the proposed work. State or local approval of the work may also be required.