

**DEPARTMENT OF THE INTERIOR**

**Bureau of Indian Affairs**

**Final Environmental Assessment for the proposed John Tom 2024 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 John Tom 2024 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, Nespelem, 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) 722-7656.

**SUPPLEMENTAL INFORMATION:** The Colville Tribe, through contractual obligations to the BIA, has proposed the John Tom 2024 Forest Management Project. The activities under the agency proposed action to harvest approximately 17.1 million board feet of timber on approximately 2,025 acres of tribal land in the San Poil District of the Colville Reservation in Ferry County, Washington. The activities will occur under guidelines in the Colville Confederated Tribes of the Colville Indian Reservation 2015 Integrated Resource Management Plan (IRMP) and associated Final Programmatic Environmental Impact Statement (FEIS)(CAR 2018).

**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  
Colville Agency Superintendent  
Bureau of Indian Affairs  
U.S. Department of the Interior

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Date

## Finding of No Significant Impact

### John Tom Forest Management Project Colville Reservation, Ferry County, Washington

Based on the attached final Environmental Assessment's (EA) for the John Tom 2024 Forest Management Project for a proposal to harvest 17.1 million board feet of timber on approximately 2,025 acres of tribal land 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 John Tom 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 John Tom 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 (CTCR 2015 Integrated Resource Management Plan and associated Final Programmatic Environmental Impact Statement (FEIS)(2018). A public field tour was given of the project area in June of 2023 (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), CTCR Forest Practices Handbook (Colville Tribal Law and Order Code Title 4-7), CTCR IRMP (CTCR 2015) and associated FEIS (CAR 2018).
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.) (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 (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 John Tom 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.) (EA section 4.3).

8. The cumulative effects to the environment are mitigated to avoid or minimize effects of implementation of the proposed project (EA Section 4).
9. The proposed action will improve the economic and social conditions of the effected Indian community (EA Section 4.10, CTCR IRMP FEIS 2018).
10. The proposed action will not affect unique characteristics of the geographic area such as the proximity to park lands, wild and scenic rivers, or ecologically critical areas.
11. Approximately 210.6 acres (6.15%) of potential prime farmland exist within the commercial harvest blocks and broadcast burn areas. 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 (Section 4.2 of EA).
12. There are approximately 8.04 acres of mapped wetlands within the project area footprint. All wetlands and surface water are buffered to minimize impacts of the project to these water systems (CTC Chapter 4-7 Forest Practices, Section 4.3 of EA).
13. The John Tom 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; national monuments; eagles and migratory birds, and other ecologically significant areas.
14. 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.
15. The proposed action will not have highly uncertain effects on the human environment or involve unique or unknown risks.
16. The proposed action will not establish a precedent for future actions with significant effects or represent a decision in principle about a consideration.
17. The John Tom Forest Management Project is not related to other actions with individual insignificant but cumulatively significant environmental effects.
18. 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).
19. 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).

20. 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)
21. 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.).
22. The proposed action will not be a violation of federal, state, local, or tribal law or requirements imposed for the protection of the environment.

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

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Date

# **JOHN TOM 2024 FOREST MANAGEMENT PROJECT ENVIRONMENTAL ASSESSMENT**

Proposed Action: The Bureau of Indian Affairs and the Confederated Tribes of the Colville Indian Reservation propose the harvest of approximately 17.1 million board feet (MMBF) of timber from 2,025 acres of tribal land in the San Poil District of the Colville Reservation.

Prepared by:

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

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

For further information: Chasity Swan

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**Final**



March 2024

BIA FILE NO: EA-24-16

**Table of Contents**

**1.0 Purpose and Need .....3**

1.1 Introduction..... 3

1.2 Purpose and Need for Action..... 3

1.3 Objectives ..... 5

1.4 Compliance with Other Codes and Regulations ..... 6

1.5 Determination ..... 6

1.6 Public Involvement ..... 7

**2.0 Alternatives Considered .....7**

2.1 General Discussion: Alternative Design..... 7

2.2 Alternative A: No Action..... 8

2.3 Alternative B: Proposed Action ..... 8

**3.0 Affected Environment ..... 11**

3.1 Forestry ..... 11

3.2 Soils ..... 15

3.3 Hydrology ..... 15

3.4 Fish and Wildlife..... 17

3.5 Cultural Resources ..... 21

3.6 Range Management ..... 26

3.7 Air Quality ..... 26

3.8 Fuels/Fire Management ..... 27

**4.0 Environmental Consequences ..... 28**

4.1 Forestry ..... 28

4.2 Soils ..... 30

4.3 Hydrology ..... 32

4.4 Fish and Wildlife..... 43

4.5 Cultural Resources ..... 52

4.6 Range Management ..... 53

4.7 Air Quality ..... 54

4.8 Fuel/Fire Management ..... 55

4.9 Cumulative Impacts ..... 56

4.10 Social and Economic Impacts ..... 56

**5.0 List of Preparers ..... 57**

**6.0 Literature Cited ..... 57**

**7.0 Appendices ..... 60**

7.1 Appendix A: Activity Table and Map..... 60

7.2 Appendix B: Consultation..... 61

7.3 Appendix C: Preliminary Transportation Analysis..... 70

7.4 Appendix D: Army Corp of Engineers BMPs ..... 72

7.5 Appendix E: Fish and Wildlife Proposed Wildlife Buffers and Road Closures ..... 75

7.6 Appendix F: CTCR Holistic Goal and Desired Future Conditions..... 77

7.7 Appendix G: Fire Regimes and Condition Class ..... 78

## **1.0 Purpose and Need**

### **1.1 Introduction**

The following Environmental Assessment (EA) analyzes the impacts of John Tom 2024 Forest Management Project. The Bureau of Indian Affairs (BIA) and the Confederated Tribes of the Colville Indian Reservation (CTCR) propose the harvest of approximately 17.1 MMBF of timber from approximately 2,025 acres of Tribal lands within the San Poil District of the Colville Indian Reservation in Ferry County, Washington State. This harvest would require about 18 miles of road construction and about 24 miles of road reconstruction.

The federal action (40 CFR 1508.18) is the BIA approval of the Stray Dog 2024 Forest Management Project, which triggers BIA's National Environmental Protection Act (NEPA) compliance review of the project (42 USC § 4321- 4347) and associated regulations found in 40 CFR 1500-1508 (as amended) and 43 CFR 46.

This EA contains the minimum requirements found in 43 CFR 46.310 (a) including brief discussions of the following:

- (1) The proposal;
- (2) The purpose and need for the proposal;
- (3) The environmental impacts of the proposed action;
- (4) The environmental impacts of the alternatives considered; and
- (5) A list of agencies and persons consulted.

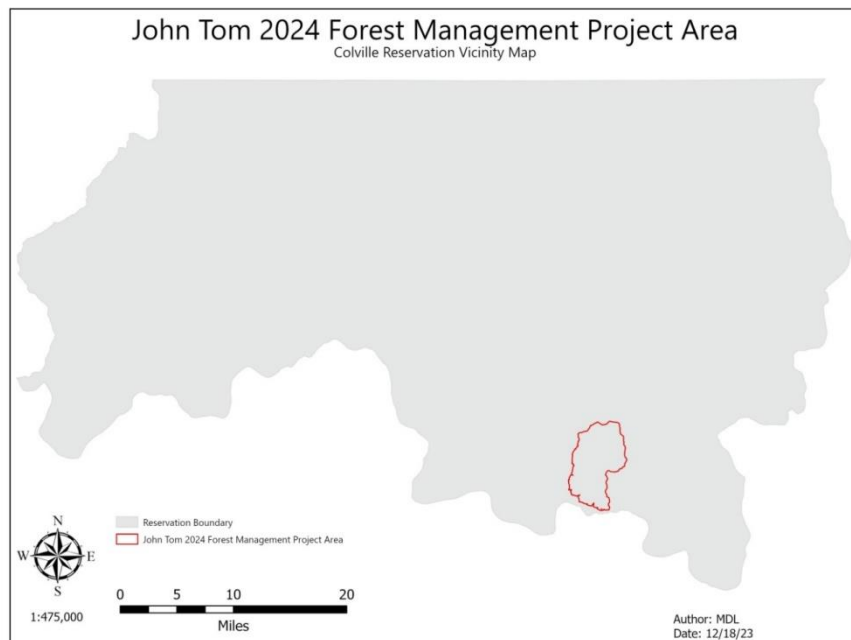
### **1.2 Purpose and Need for Action**

The purpose of the action is to be able to implement the activities under the federal action to meet the primary need meeting the goals outline in the CTCR 2015 Integrated Resource Management Plan (IRMP). The CTCR utilized consensus building process for gathering input from the Tribal Membership to develop the Tribes Holistic Goal and Desired Future conditions enacted by the Colville Business Council by Resolution 1996-23 (Appendix C). The CTCR IRMP has set an annual harvest level of 77.1 million board feet (MMBF)(CTCR 2015). This project would contribute toward reaching this target volume. The IRMP sets goals and objectives to manage the Reservation forestlands with management practices that integrate protections for

water quality and quantity, fish and wildlife, soils, vegetation, cultural resources, recreation and scenic beauty. Forest Management also allows the tribe to maintain a sustainable forest products industry to provide revenue for the Colville Tribes and economic benefits for the people of the Reservation.

The John Tom Project area contains stands of timber that present a high risk of sustaining losses to several forest insect and disease agents. Past selective harvest practices and fire suppression has led to exacerbated insect and disease issues including Dwarf Mistletoe, Armillaria Root Rot, and Bark Beetles. Generally, thinning the forest to a healthy density, removing the Douglas-fir competition from the understory, and removing infected trees can help trees defend themselves from insects and disease. This project area had not been treated the last scheduled entry due to right of way and access issues.

A more detailed discussion of the forest health issues on the Colville Reservation and the need for treatment can be review in the 2023 Forest Management Plan (FMP). Environmental impacts from the management of CTCR Natural Resources under the IRMP and the FMP have been analyzed in the Final Programmatic Environmental Impact Statement (FEIS) (CAR 2018).



**Figure 1. John Tom Project Area on the Colville Indian Reservation.**



## 1.3 Objectives

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.

### 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.

**Indicators:**

- A. Block size and adjacency, acres.
- B. Road density, mi/mi<sup>2</sup>.
- 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.

**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**

In the process updating of the IRMP which provides goals and objectives to manage the Tribes' natural resources a Colville Reservation Community survey was conducted to document the priorities, preferences and concerns regarding the management of the Tribes' natural resources (Center for Applied Research [CAR] 2015). A total of 1,026 individuals participated.

Respondents indicated the forests provide essential revenue source (47%) and jobs (52%) for the tribal membership and community. The strongest response on forest management (54%) was for forest-wide thinning of insect and fire prone tree stands and to treat forest health issues. Many community meetings were held to help shape the CTCR management strategy during the 2001 and 2015 IRMP planning processes.

The John Tom Forest Management Project was presented to the Colville Tribes Natural Resources Interdisciplinary Team (3P Team) in March of 2023. The 3P Team and public also had a field tour of the project area in June of 2023.

## **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:

- Capture the value of fire damaged timber
- 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 John Tom 2024 Project at this time and/or the BIA and Tribe 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 John Tom 2024 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 Inchelium District Foresters to meet forest health needs, and provide volume for the Annual Allowable Cut (AAC) of 77.1 MMBF outlined in the IRMP (2015).

Timber Harvest of roughly 17.1 MMBF from 2,025 acres of timber harvest blocks. There are 67 acres of PCT and 387 acres of conifer tree planting, and 2,037 acres of prescribed burn treatments in the John Tom 2024 Project Area. There are an estimated 144 acres of mechanical site preparation and 911 acres of broadcast burn and prescribed burn site preparation associated with the various silvicultural treatments this entry. This harvest would require about 18 miles of road construction and about 24 miles of road reconstruction.

**Table 1. Prescription Summary.**

<b>Prescription</b>	<b>Acres</b>
Commercial Thinning (CT)	272
Improvement Cut (IC)	542
Regeneration w/ Reserve Trees (RRT)	387
Seed Tree (ST)	157
Seed Tree/Overstory Removal	313

(ST/OR)	
Shelterwood (SW)	354
<b>Total Commercial Harvest</b>	<b>2025</b>
Pre-Commercial Thinning (PCT)	67
<b>Total Non-Commercial Thinning</b>	<b>67</b>
Tree Planting - artificial regeneration	387
Mechanical Slash Piling (MSP)	144
Broadcast Burn Site Preparation (BB)	455
Prescribed Burn Site Preparation (RXBSP)	456
<b>Total Regeneration Development</b>	<b>1442</b>
Prescribed Burn (RXB)	2037

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. Cable assisted (CA) logging method can be used to aide ground-based machines to harvest and skid on steeper inclines of 35% to 65% slopes that would be normally considered unsafe for equipment or damaging to soils.

**Table 2. Alternative B Harvest Systems**

<b>Harvest System</b>	<b>Acres</b>
Ground Based	968
Tether-Assisted Ground Based	830
Cable	227
<b>Total</b>	<b>2025</b>

**Table 3. Alternative B roads summary**

<b>Roads</b>	<b>Miles</b>
New Construction	18.3
Reconstruction	24.3

### **Road Closure Plan**

All newly constructed roads would be closed following post-harvest activities in accordance with forest practices 4-7-60 2(E).

### **Other Project Design Features**

There are many other project design features that are included in this alternative. These are included to help protect other resources such as fish and wildlife, and riparian areas. Some of these design features are outlined below. These design features would help mitigate most of the issues and concerns raised by Fish and Wildlife, Soils and Hydrology. These design features would make the project meet the standards of the IRMP and Forest Practices Code and help to mitigate some of the potential negative impacts of the project.

- Habitat patches would be left in the large units to break up the “continuity” on the landscape and provide refuge for wildlife.
- Scattered over-story trees would be left on all units to provide a future source of snags and down woody debris.
- Streams and wetlands would be buffered as required by the current 208 guidelines.
- A combination of cable logging and ground-based systems would be used, depending on steepness of the units and road placement.
- Summer and winter seasonal restrictions would be placed on units to protect the sensitive ash cap soils from erosion. Summer would be dry soil conditions; winter restrictions would require frozen ground and/or 2 feet of snow.
- Archeological sites would be buffered and protected from logging damage.
- Corridors would be in place on the landscape to allow wildlife to travel across the project area while being secure.
- Continued monitoring for specific wildlife species would occur and operational adjustments can be made if needed.
- Skid trails would be spaced at least 100 feet to reduce soil compaction and displacement.

When timber harvest takes place, Best Management Practices (BMP's) outlined in the Colville Confederated Tribes Forest Practices Handbook, dated 2023, 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. Slash treatments, on the ground and at the landings, would be either lop & scattered, slash, excavator piled & burned, prescribed burned or left on site. The continual management of the stands including monitoring from initial stand development to the maturity of the stand would be completed by various forestry staff such as

Silviculturists, Timber Sale Officers, and forest development staff. The monitoring would ensure the individual stands are going down the anticipated pathway to the desired future conditions.

Culverts would be replaced at certain locations depending on the necessity which would be determined by the TSO's, District Officer, the Road Engineer, or ETD Non-point Source (NPS) Management Coordinator. Also, new culverts would be installed to allow the continual flow of water to remain in the same established channel and accommodate the estimated discharge of a 100-year flood event. Water sources would be identified on the FPA/HPA application as potential sites to obtain water for road watering, dependent on approval from the Water Administrator. Calcium chloride may be used on sections of road as an alternative to road watering.

Riparian Management Zones (RMZ) would be identified in the planning process using stream classification maps and determined by Presales Department personnel during block boundary layout. RMZ buffers would follow requirements of the Forest Practices Code (CTC 4-7), dated 2023. During implementation of road construction activities and logging operations, some trees may need to be harvested, if they present a safety hazard.

## **3.0 Affected Environment**

### **3.1 Forestry**

#### **Affected Environment**

##### **General Discussion**

The John Tom 2024 Project Area is in the San Poil Forestry District of the Colville Reservation, located in northeastern Washington State, in southwest Ferry County.

The area is bounded on the north by the watershed divide between the Silver Creek and John Tom Creek drainages; to the south by a major ridge running east/west separating the John Tom and Brody Project Areas; to the west by the San Poil River; and to the east by a major ridge separating the San Poil and Inchelium Forestry Districts. The area consists of the entire drainages of John Tom and Dick Creek.

##### **Forest Health**

Past management practices of fire suppression, reduction in grazing, and single tree selection had the cumulative effect of creating a forest that is very different ecologically than the historically. Another aspect of forest health is that of direct damage to trees by insects, diseases, and parasitic plants. The forest condition is described in detail in the 2023 CTCR Forest Management Plan and 2015 IRMP. Please refer to that those plans to understand the forest health issues occurring on the Colville Reservation.

Road Conditions:

- Washed out culverts and roads
- Poor water drainage off roads
- Overgrown vegetation

Some segments of roads in the project area are improperly placed near streams. Water runs down many of these roads causing ruts and erosion. Overgrown vegetation has closed numerous roads up which makes travel more difficult on most roads. A major rain event in 2023 washed out the lower half of Dick Creek road, effectively cutting off access to half of the project area. This damaged section of road was too close to the stream before the event. A new road, in a better location outside the stream buffer and floodplain, would be constructed to replace it with the project.



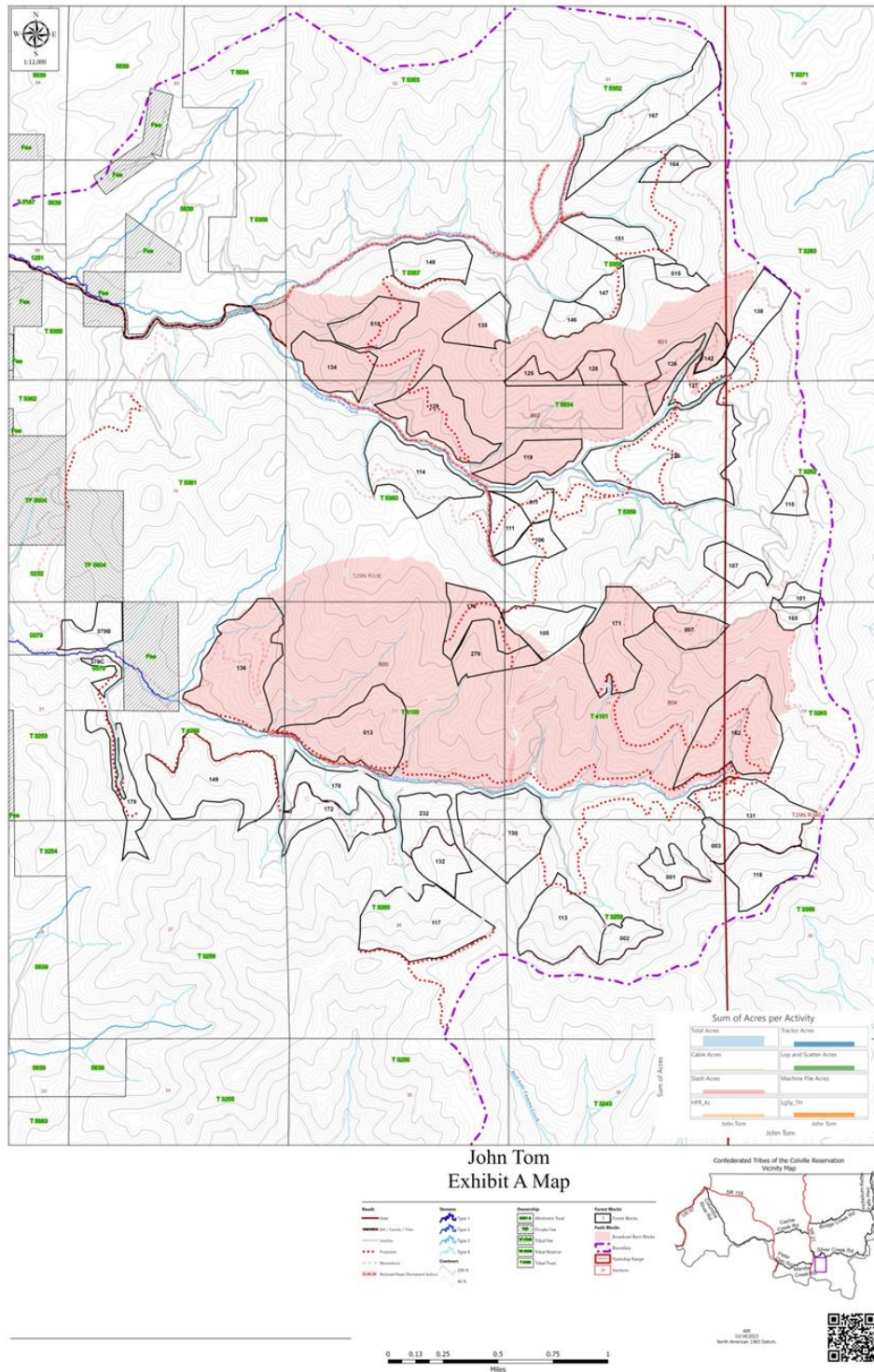
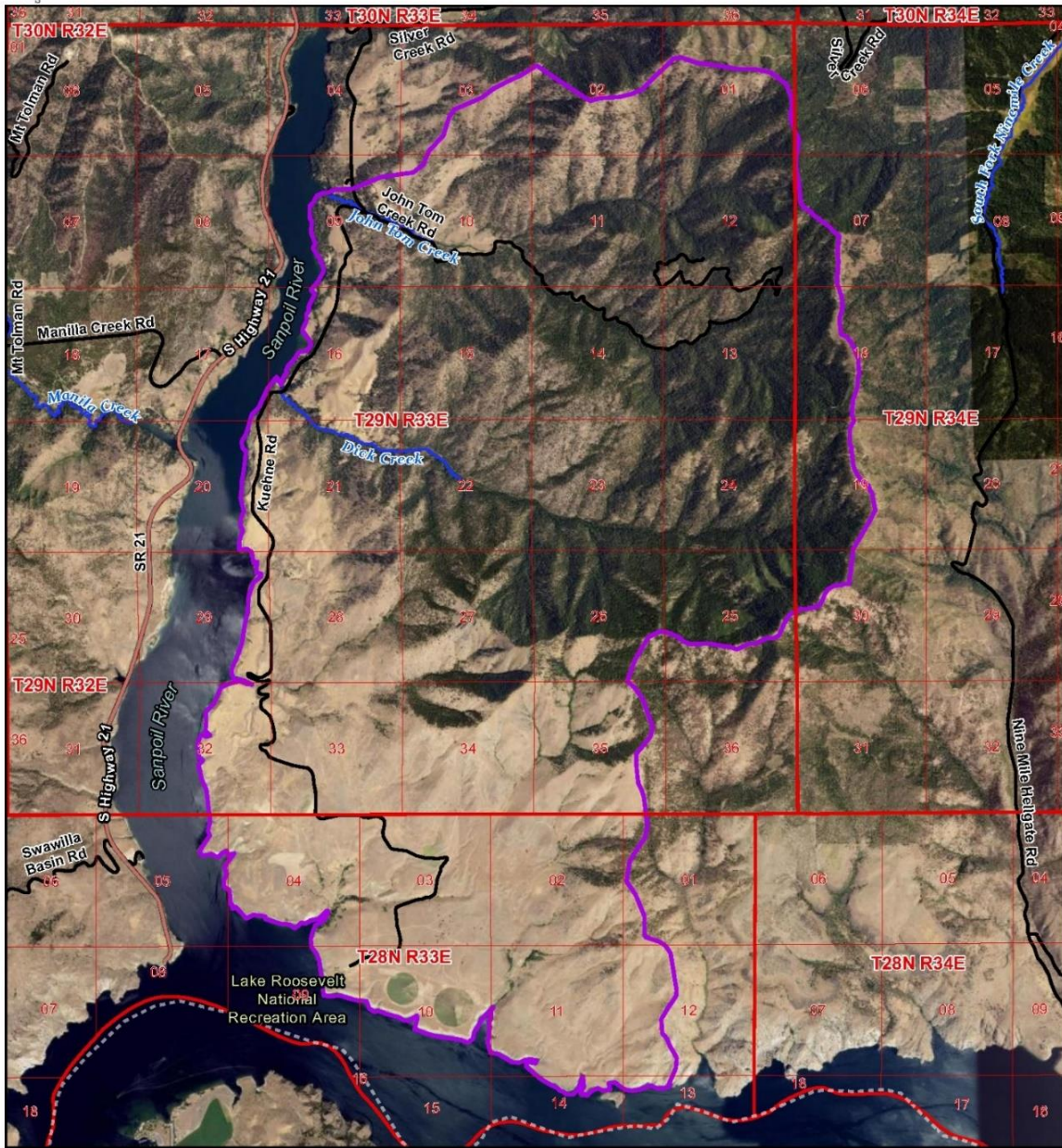


Figure 2. John Tom 2024 Project area harvest blocks.



# JOHNTOM FOREST PROJECT AREA



- State Highway
- Primary Road
- Stream Type II
- Township / Range

- Sections
- Forest Project Area
- Reservation Boundary



Map Center DMS (Long/ Lat)  
118°37'47"W 47°59'21"N

Source: Esri, USDA FSA, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

Figure 3. Ariel view of proposed John Tom 2024 Project Area.

### 3.2 Soils

The landscape throughout the project area is dominated by mountain slopes and hillslopes. Soils are formed predominantly from residuum and colluvium, volcanic ash, and loess. Soil parent materials largely derived from colluvium and residuum derived from granitic rock with a mantle of volcanic ash and loess. Table 5 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).

<b>General Soil Types</b>	<b>Map Unit Names</b>	<b>Landform</b>	<b>Approx. % of Area</b>
Gravelly/Sandy/Cobbly/Stony Loam	Skanid, Bearspring, Scoap, Dinkelman	Hillslopes, Mountain Slopes	41.8%
Warm-Skanid, warm complex	Spokane	Mountain Slopes	27.8%
Loam	Dinkelman, Bearspring, Spokane, Whitestone	Mountains, Hills, Hillslopes	20.5%

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

### 3.3 Hydrology

The present condition of the affected environment is variable across the project area. The affected environment is influenced by the John Tom Project Area in the San Poil District of the Colville Reservation located in northeastern Washington State. This project area is 12,219.43 acres, and contains the John Tom Creek, Dick Creek, and Columbia River 19 and 20 WMUs. Harvest is only proposed in the John Tom and Dick Creek WMUs.

Both the John Tom Creek drainage and the Dick Creek drainage independently feed the San Poil arm of the Columbia River, without inputs from any other drainages in the larger Lower San Poil Resource Management Unit (RMU). The Silver Creek WMU also flows into the San Poil arm, without influencing the project area. The Hellgate Canyon and Columbia River 18 WMUs are located to the south of the project area, but separately flow into the Columbia River as well, and Brody Creek and the South Fork of Nine Mile Creek to the east flow away from the John Tom project area. While Silver Creek WMU is co-located with John Tom and Dick Creek in the Lower San Poil Resource Management Unit (RMU), the other surrounding drainages are not.

Hellgate Canyon, Columbia River 18, and Brody Creek are contained within the Hellgate RMU, while the South Fork of Nine Mile Creek WMU is in the Nine Mile Creek RMU.

In addition to direct impacts in the John Tom Creek and Dick Creek watersheds, landscape-scale impacts from activity in the John Tom project area would be detected in the San Poil arm of the Columbia River, or in the main stem of the Columbia River itself. Generally, timber sales are active for five years after approval, resulting in five years of direct impacts from timber harvest, though indirect impacts can last longer. In the past five years (since 2018), two other green timber sales, and half of a third, have occurred in the Lower San Poil RMU: Cache Creek (2018), Keller Ridge (2022), and McAllister (2023), respectively. John Tom was prescribed for harvest in 2010, but was removed from the harvest schedule due to access challenges. Additionally, several small fires have impacted the RMU during the past few years, though the largest was the Lime Creek Fire (2021), which was only 376 acres. The Williams Flats Fire, which caused major impacts to the Hellsgate RMU and game reserve in 2019, burned to the eastern boundary of the project area, but was contained at the drainage divide, and did not impact the John Tom or Dick Creek watersheds. The project area is not located within any current range unit boundaries.

Water resources in the project area include 40.48 miles of streams and 8.04 acres of wetlands, as well as an unknown number of seeps and springs. John Tom Creek and Dick Creek are of similar size, and are the major watercourses in the project area, both flowing east to west before joining the San Poil arm of the Columbia. Tributaries to John Tom and Dick Creek include type 3 streams, which are generally perennial and fish-bearing, and type 4 streams, which are generally intermittent, high-gradient headwater streams. Both John Tom Creek and Dick Creek are fish-bearing, and many tributaries contain significant fish habitat, though it is not uncommon for both of the main stems to dry up at some point during the water year.

Water quality is monitored at the mouth of John Tom Creek, immediately upstream of the confluence with the San Poil arm of the Columbia River. Water quality monitoring and analysis from 2016-2021 identified exceedances of the standards outlined in Colville Tribal Code 4-8 Water Quality Standards (Axthelm 2022). John Tom Creek exceeded both the fecal coliform and e.coli standards for Class III waters, by exceeding 400 NTU in greater than 10% of the recorded samples. During the analysis period, John Tom Creek also recorded exceedances of the 6.45

NTU turbidity standard twice in 2017, and again in 2018. It is worth noting that all exceedances occurred during the “spring breakup” period, when water levels are elevated, and sediment mobilization is increased. During both non-compliant samples in 2017, flows were the highest recorded at any point during the study period. There were no recorded exceedances of the temperature, dissolved oxygen, or pH standards. Water quality in Dick Creek is not monitored.

**Table 5. Hydrologic features within the John Tom Project Area footprint.**

<b>Hydrologic Feature</b>	<b>Potentially Affected Size</b>
<b>Mapped Streams</b>	40.48 mi
<b>Mapped Wetlands</b>	8.04 ac

### **3.4 Fish and Wildlife**

The John Tom 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 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 Colville Tribe to identify eagle and raptor nests. Eagle nests and roosts near the John Tom project are associated with large trees near or adjacent to the San Poil 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*), 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 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 John Tom Project area located within the Hellsgate Wildlife Reserve is home to the largest elk herd on the reservation. Protection of this herd is a top concern for the wildlife program to maintain its high population for future hunting opportunities of tribal members.

The Colville Reservation is currently home to eight 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 they are known to use this area year round. Wolves are a state threatened species in Eastern Washington and the Tribe manages current wolf populations under their approved Wolf Management Plan.

## **Fish**

Within the John Tom Project Area, John Tom Creek, Dick Creek and their tributaries are a part of the John Tom Creek and Dick Creek watersheds. John Tom, Dick creeks, and two type 4 creeks are tributary to the Sanpoil River which is tributary to Lake Roosevelt. 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 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 John Tom 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. Since 2011, fewer than 25 bull trout have been documented in the mouths of tributaries to Lake Roosevelt or in Lake Roosevelt/Columbia River itself. The majority of observations occur in the north end of Lake Roosevelt near the Canadian border with infrequent observations in the mouths of tributaries. In 2012, a single adult bull trout was documented in the lower Sanpoil River Arm of Lake Roosevelt. Bull trout observation data within the Northeast Washington Research Needs Area is not well tracked, is sporadic, and often anecdotal, although they are rarely encountered during large-scale standardized fishery surveys. Bull trout present in the Northeast Washington Research Needs Area likely derive from local populations in the Coeur d’Alene/Spokane River or Pend Oreille River basins, or from tributaries to the Columbia River in Canada and have been entrained over dams. While bull trout are rarely

encountered in Lake Roosevelt, bull trout are very unlikely to be impacted by activities within the project area.

**Federally Threatened or Endangered Species**

Section 7 of the Endangered Species Act (ESA) (16 USC 1531 et seq.) of 1973 as amended and its implementing regulations found at 50 CFR 402, require federal agencies to ensure 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. Upon review of the location of the proposed action, consultation with the

The BIA and Tribal 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. Documentation is found in Appendix B.

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), consultation code 2024-0020227, is included as Appendix B.

Species	Scientific Name	Status
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Threatened
Monarch Butterfly	<i>Danaus plexippus</i>	Candidate
Bull Trout	<i>Salvelinus confluentus</i>	Threatened

**Table 6. US-DOI-Fish and Wildlife Service: Official Species List.**

**Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act**

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 Colville Tribe to identify eagle and raptor nests. All known nests are buffered and have seasonal restrictions.

**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]).

The John Tom Forestry 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 Confederated Tribes of the Colville Reservation 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.

This project includes various timber management treatments for approximately 2,025 acres with an additional 2,037 acres of fire treatment within the San Poil Forestry District (SPFD). The John Tom Project Area encompasses approximately 16,963 acres. For the purposes of consultation with the Tribal Historic Preservation Officer (THPO) under Section 106 of the National Historic Preservation Act, the 2,025 acres of timber treatment areas, the 2,037 acres of fire treatment areas, roads, and attendant landings shall be considered the Area of Potential Effect (APE). This project requires approximately 18.3 miles of road construction and 24.3 miles of road reconstruction.

There have been two previous surveys within and immediately adjacent to the John Tom Forestry Project area (Marchand 2008; Marchand 2013). A review of the Colville Confederated Tribes History/Archaeology (H/A) Program databases resulted in twenty-nine documented archeological sites and four Traditional Cultural Properties (TCPs) are located within the project area.

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

The cultural resource survey of the John Tom Forestry Project relocated two of the archaeological sites.

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).

Forty-five resources have been documented within the John Tom Forestry Project area. Twenty-nine archaeological sites, four TCPs, seven historic Indian allotments, one historic GLO road, one GLO trail and three historic mining claims have been identified within project area. Two previously documented archaeological sites are located within proposed prescribed landscape burn. 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 one 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) they 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 lack 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 and their locations and use provided people with a means for subsistence and important cultural items for personal use or trade, 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 John Tom Creek, Dick Creek and Eagle Rock as possessing traditional value. It is the position of the CCT 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 would 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 Watershed, which contains three springs and all or portions of Manila Creek, Silver Creek, Dick Creek, Copper Creek, Meadow Creek. 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 John Tom Creek, Dick Creek, Silver Creek, Copper Creek and the Sanpoil River.

**Table 7. Traditional Cultural Plants gathered within the Lower San Poil Watershed (Marker et al. 2011).**

<b>Cedar,</b> <i>Thuja plicata</i>	<b>Fir,</b> <i>Multiple Species</i>	<b>Narrow-Leafed Cattail,</b> <i>Typha angustifolia</i>
<b>Lodgepole Pine,</b> <i>Pinus contorta</i>	<b>Wild Rose,</b> <i>Rosa</i>	<b>Arrow-Leaf Balsamroot,</b> <i>Balsamorhiza sagitata</i>
<b>Buckbrush,</b> <i>Ceanothus spp</i>	<b>Wild Thimbleberry,</b> <i>Rubus spp</i>	<b>Ponderosa Pine,</b> <i>Pinus ponderosa</i>
<b>Indian Carrots,</b> <i>Perideridia gairdneri</i>	<b>Red Willow (red osier dogwood),</b> <i>Cornus stolonifera</i>	<b>Gray Willow,</b> <i>Salix</i>
<b>Huckleberry,</b> <i>Vaccinium spp</i>	<b>Hawthorn (red or black),</b> <i>Crataegus spp</i>	<b>Wild Mushrooms,</b> <i>Multiple Species</i>
<b>Bitterroot,</b> <i>Lewisia rediviva</i>	<b>Black Cottonwood,</b> <i>Populus trichocarpa</i>	<b>Lichen,</b> <i>Bryonia fremontii</i>
<b>Bunchberry,</b> <i>Cornus canadensis</i>	<b>Cherries (includes chokecherry),</b> <i>Prunus spp</i>	<b>Common Camas,</b> <i>Camassia quamash</i>
<b>Elderberry (blue or red),</b> <i>Sambucus spp</i>	<b>Hazelnut,</b> <i>Corylus cornuta</i>	<b>Celeries/Buscuit Roots,</b> <i>Lomatium spp</i>
<b>Sages,</b> <i>Artemisia spp</i>	<b>Serviceberry,</b> <i>Amelanchier alnifolia</i>	<b>Valerian,</b> <i>Valeriana spp</i>
<b>Indian potato,</b> <i>Claytonia lanceolata</i>	<b>Wild Raspberry,</b> <i>Rubus spp</i>	<b>Wild Blackberry,</b> <i>Rubus spp</i>
<b>Foamberry,</b> <i>Shepherdia canadensis</i>	<b>Bunchgrass,</b>	<b>Birch (including river birch),</b> <i>Betulaceae</i>
<b>Indian Hemp (aka dogbane),</b> <i>Apocynum cannabinum</i>	<b>Cottonwood,</b> <i>Populus deltoides</i>	<b>Maple,</b> <i>Acer rubrum</i>
<b>Yew,</b>	<b>Juniper,</b>	<b>Western Larch,</b>

<i>Taxus brevifolia</i>	<i>Juniperus</i>	<i>Larix occidentalis</i>
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### 3.6 Range Management

The “John Tom” forest project area is not currently associated with any of the Range Units under management by the Land Operations/Range Program. Much of this area was formerly in Range Unit 21 but was transitioned from being available for livestock grazing to wildlife purposes. The Range Program does not have operational concerns relative to this project proposal. Plant community information is offered for consideration.

### 3.7 Air Quality

#### Smoke Management and Air Quality

**A. Compliance:** Air quality within the reservation boundaries is regulated by the Environmental Protection Agency (EPA) under 40 CFR, Part 49, Section 131,137 Federal Air Rules for Indian Reservations (FARR) effective June 7, 2005. Implementation of this prescribed fire plan would comply with FARR regulations.

**B. Permits to be Obtained:** No permits are required to implement this Prescribed Fire Plan. Dispatch would notify Washington State DNR of intent to burn on a daily basis.

**C. Smoke-Sensitive Receptors:** There is no Class I air - sheds adjacent to or within the boundaries of the Colville Confederated Tribes Indian Reservation. The following small airports border the reservation boundary but would not be impacted.

**D. Potential Impacted Areas:** Smoke as a result of ignition, would be transported into the higher levels of the atmosphere by general and transport winds minimizing smoke impacts to the public during the day. Some significant smoke impacts are anticipated. The volume of smoke created on any given day is not anticipated to be enough to create a significant impact within the drainage.

**Mitigation Strategies and Techniques to Reduce Smoke Impacts:** The Burn Boss would coordinate on a daily basis with the Operation Specialist in scheduling and prioritizing prescribed fire activities across the Colville Indian Reservation. By doing so, air quality can be managed and duration of smoke exposure minimized.

1. Prior to the planned burn day(s), Fire Management staff would post public notification posters that display areas where burning is planned and would include Fire Management contact information if public has questions or concerns.
2. If there is an expectation that nearby local residents would be impacted by smoke, the Burn Boss would arrange for fire management staff to contact them. If personal contact cannot be made a flyer would be left that would include Fire
3. Management contact information. The Burn Boss would attempt to manage smoke impacts where necessary by limiting the number of acres burn in the area each day.
4. No local residents with respiratory health issues have been identified at this time. Temporary living arrangements would be offered if a resident is identified.

If roadway visibility is impacted signs would be posted as required in the State and County Signing Guidelines.

### **3.8 Fuels/Fire Management**

Prior to the more recent period of active fire suppression fire was an important ecosystem component that helped maintain resilient ecosystem functioning. Fire on the landscape helped the fire adapted vegetation species occupying these sites maintain healthy resilient plant communities. An integrated management approach wherein Fire Management and Forestry work closely together to plan and implement Forest Management Projects that would benefit the resource and membership while reducing costs and increasing the number of acres receiving treatment.

#### **Stand Composition Density, Structure and Fuel Loading**

The risk of catastrophic wildfire is greater in these stands than would have normally occurred due to dense stocking or ladder fuel conditions that would allow fire to spread into the forest canopy.

#### **Fire Regimes and Condition Class**

Fire Regimes are used to categorize the historic frequency of fire on the landscape and Condition Class is used to categorize the degree to which site conditions have departed from what would be considered their normal historic range. For a description of Fire Regimes and Condition Class see Appendix H. Due to the past activities in the John Tom Project Area the condition class of the sites has some departure from the normal historic range. Condition class one is the most

prevalent within the project area at 20,249 acres within the treatment areas, 13,672 acres of Condition Class two, and 3,777 acres in condition class three.

## 4.0 Environmental Consequences

### Summary Table of Issues Indicators

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

Resource	Issue	Issue Indicator	Alt. A	Alt. B
Vegetation/ Timber	Forest Health	Acres Treated	\$0	2,025 Acres
	Support of Tribal Wood Processing	Timber Volume for Processing	\$0	17.1 MMBF
	Tribal Income	Projected Stumpage	\$0	\$1,710,000
Hydrology Fish & Wildlife	Sediment Delivery/Erosion Habitat	Road Construction	0 Miles	18.0 Miles of New Construction 24 Miles Reconstruction

## 4.1 Forestry

### Impacts to Forestry Resources Alternative A: No Action

- No profits for Colville Tribe and would not meet the AAC of 77.1 MMBF.
- Forest management would not receive the 10% funds.
- No timber industry employment would be generated.
- Forest health would decline.
- No Improvements in forest roads.
- Area would move farther away from the Desired Future Condition's in the IRMP.
- No new acres would be added to the regulated forest.



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 conditions. 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. There would continue to be an increased likelihood of catastrophic fire.

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.

### **Impacts to Forestry Resources Alternative B: Proposed Action**

- \$1,710,000 of profit for the Colville Tribe with a harvest of 17.1 MMBF.
- Species composition on 2,025 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 encroachment would be piled and/or burned, reducing the likelihood of catastrophic fire and prepare site for regeneration of desirable species.
- Density would be reduced in overstocked stands, creating a healthier forest.
- Desired Future Conditions outlined in the IRMP would be met over time.
- 18.3 miles of new road construction to facilitate logging. 24.3 miles of existing road would be improved.
- 2,037 acres treated with prescribed burning, reducing risk of catastrophic wildfire in the project area.

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 is 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 would be impacted by ground-based logging, cable or cable assisted logging, tethered logging, excavator piling and broadcast burning. Approximately 968 acres would undergo ground-based logging. Blocks that are cable logged and/or tethered logged, comprising approximately 1,057 acres, typically have fewer significant soil impacts. If tethered logging is used instead of cable, soil impacts would vary depending upon localized conditions, but tend to improve overall safety. Approximately 2,036 acres would undergo broadcast burning, 144 acres would be mechanical slash piled, 62 acres would undergo pre-commercial thinning, and 1,032 acres would undergo lop and scatter. Approximately 210.6 acres (6.15%) of potential prime farmland exist within the commercial harvest blocks and broadcast burn areas. 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 would be greater. According to data obtained from the Colville Tribes RIA/GIS program, 24 percent of the total 968 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% would be 228 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 ac	Moderate Potential ac	Low Potential ac
Displacement	14.9 Acres	944.7 Acres	8.7 Acres
Rutting	660.4	294.4	13.4
Compaction	664.1	304.1	-
Erosion	-	880.2	88.1

The Natural Resources Conservation Service rates most soils with slopes exceeding 20% as poorly suited or unsuited for surface mechanical site preparation. Approximately 88.04 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.

2,036 acres are proposed for prescribed broadcast burning. Of the entire project area 36.8 percent of the total area is considered by NRCS to be highly susceptible to fire damage and 63.2 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 shapefile, approximately 18.3 miles of new road construction and 24.3 miles of road reconstruction would occur. With a total of 42.6 miles of new road construction and road reconstruction, approximately 170.4 acres of soil disturbance would 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 2023).

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

- 18.3 miles of new road construction and 24.3 miles of road reconstruction
- 6.3 miles of new road construction and 6.45 miles of road reconstruction within 200 ft of hydrologic features
- Harvest activities within 200 ft of streams – 281.1 ac
- Harvest activities within 200 ft of wetlands – 20.5 ac

The proposed project would involve approximately 2,025 acres of treatment. Within the project area, there are 40.48 miles of streams and 8.04 acres of wetland. Within treatment blocks, there are 1.69 miles of streams and 0.58 acres of wetland. The proposed project plan includes 301.6 acres of planned harvest activities within 200 feet of hydrologic features, including 281.1 acres within 200 feet of streams, and 20.47 acres within 200 feet of wetlands.

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.

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 200 feet 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.

The impacts from the proposed project to the affected environment are multi-faceted. Harvest impacts include: alterations in flow paths due to skid trail creation and machinery operation; reduced infiltration and increased erosion due to soil compaction from machinery operation; increased sediment and nutrient delivery to surface waters; loss of wetland and riparian vegetation; and potential delivery of herbicide to surface waters, among others.

Prior to initiation of harvest, calculation of exact miles of skid trails is not feasible. However, impacts can be estimated through looking at the number of blocks and acreage of harvest impacts. 1,798 acres, across 43 blocks, are proposed for ground based (tractor and cable assist) harvest. An additional two blocks will be harvested using cable assist methods if traditional cable harvest is not operationally feasible. Ground based harvest blocks range from approximately 1,500 to 5,000 feet in width oriented perpendicularly to the hillslope. Assuming an average block width of approximately 2,000 feet (a conservative estimation), with average skid trail spacing of 100 feet (as required by Colville Tribal Code 4-7 Forest Practices), almost 900 skid trails will be created in blocks prescribed for ground based harvest. This approximation is fundamentally imprecise, but allows an estimate of magnitude. Additionally, 255.78 acres of proposed ground based harvest will occur within 200 feet of streams. The potential for sediment and nutrient delivery to surface water via skid trail creation is elevated in these acres.

Tethered logging, a relatively new harvest system on the Reservation, which involves the use of a winch for assistance in machinery operation of slopes, is proposed for 818 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, recognizing the increased magnitude of machinery

impacts as slope increases. However, tethered logging has been adopted for use on slopes up to 70%, 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. 77.02 of these acres are located within 200 feet of surface water (streams and wetlands), increasing the potential for sediment delivery due to the combination of ground based operation and steep slopes.

Road development and use impacts include: alterations in flow paths due to the creation of linear landscape features (roads) perpendicular to natural slopes; reduced infiltration and increased erosion due to the creation of impervious or resistant surfaces; and increased transport of vehicle associated contaminants (including 6PPD-q, hydrocarbons and carbon monoxide from exhaust, etc.), among others.

Proposed reconstruction and new construction in the John Tom project area will occur on 40 miles of road. The likely haul routes for logging vehicles to transport logs to the mill in Colville, WA includes an additional 58 miles of paved road to the northern boundary of the Reservation, primarily on State Route 21, Bridge Creek Road (Ferry County Road 8020), and Inchelium-Kettle Falls Road. 11.33 miles of reconstruction and new construction will occur within 200 feet of surface water. 0.39 miles of road reconstruction and new construction will occur within 200 feet of wetlands with 39.0 feet of new road built within NWI mapped wetland. 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. Additionally, studies have shown that the chemical 6PPD-quinone (6PPD-q), used in the manufacture of rubber tires, can cause acute mortality in salmonids, including rainbow trout (*Oncorhynchus mykiss*), found in streams across the Colville Reservation. Roads in proximity to salmonid bearing waters may result in 6PPD-q related effects.

Therefore, the action in this area would have direct physical changes on the environment. The Proposed Action Alternative approval would have cumulative effects resulting from road construction and use, and timber harvest. The associated effects are discussed in Section 3.0 of this EA.

### **Impacts to Hydrology Resources Alternative A: No Action**

Under the No Action Alternative, there would be no changes to surface water, wetlands, or floodplains, and no significant direct, indirect, short-term, long-term, or cumulative impacts to water resources anticipated.

### **Impacts to Hydrology Resources Alternative B: Proposed Action**

#### Surface Water:

The proposed alternative will generate sediment through the creation of skid trails, increase overland flow through the removal of vegetation, and create interception points through the construction and reconstruction of roads. A minimum of 53 culverts are proposed for installation during this project. Road miles and road density in the project area will increase due to the 18.3 miles of new road construction.

#### Wetlands:

The proposed forestry activities will impact wetland ecosystems through soil disturbance, hydrological alteration, and disruption of vegetative community. Forestry associated road work especially is predicted to contribute to excess sedimentation and runoff inputs to the detriment of the ecological function of the wetlands.

#### Floodplains:

NOAA mapping indicates limited areas of 100-year floodplain associated with Dick Creek. Due to the steep slopes in the project area, both tributaries to and the main stem of Dick Creek and John Tom Creek are generally confined, and most reaches do not have associated floodplains. Blocks and roads proposed for this project do not encroach on the 100-year floodplain of Dick Creek.

### **Direct Impacts – Short-Term**

#### Surface Water:

Timber harvest activities are likely to result in short term impacts to surface water quality through the generation of sediment. Steep slopes and ground based harvest methods are likely to result in increased turbidity in both Dick Creek and John Tom Creek, which will detrimentally affect aquatic organisms. Additionally, turbidity is often associated with dissolved oxygen and temperature, though these have not been concerns in these drainages in the past. Increased heating of surface water, particularly in headwaters and tributaries, is likely, due to removal of vegetative cover. Degradation of temperature, dissolved oxygen, and turbidity metrics will likely be short term impacts of timber sale activities. Water quantity is the main stems of Dick Creek and John Tom Creek may increase in the short term, due to removal of vegetation and reduction of transpirative losses. However, much of this water will travel as overland flow, becoming vulnerable to evaporation and interception from road prisms, skid trails, and other anthropogenic alterations. Water distribution across the landscape is also likely to change for this reason. Road construction and reconstruction is responsible for interruption of natural landscape hydrology, creating diversion points perpendicular to hillslopes. These diversions result in altered flow paths, increased evaporation, and increased sedimentation. Short term water quality will likely decrease for these reasons as well. These impacts will be sustained over the duration of the project, approximately five years.

#### Wetlands:

Extensive tree removal adjacent to wetlands in the Seed-Tree Cutting (ST) Rx in Block 355 129 as well as moderate removal for Intermediate Cutting (IC) Rx in Block 355 120 are predicted to contribute to short-term rise in local water tables which influence the timing and seasonal persistence of surface water, interrupt pollutant processing capacity of the wetlands, and disrupt growth habits of wetland vegetation.

#### Floodplains:

No proposed actions from this project are likely to have short-term direct impacts on floodplains.

### **Direct Impacts – Long-Term**

#### Surface Water:



Long term impacts to surface water will continue until vegetation is established and disturbed areas are stabilized. As skid trails and roads are seeded with herbaceous vegetation, soils will become more stable, and water quality will gradually return to pre-harvest conditions. As larger vegetation and trees establish, surface water quantity will decrease with increased evapotranspiration. Depending on the duration and severity of impacts to natural hillslope hydrology, flow paths may be permanently altered by the creation of skid trails and roads. Additionally, roads will not be deconstructed at the conclusion of the sale. Therefore, road density impacts on interception and diversion will persist, and road use will continue into the foreseeable future. Crossing structures will also not be removed, and impacts from improperly installed or sized structures will continue to impact water quality in the long term. Additionally, any road use over streams will continue to deliver sediment and contaminants to the surface water at the crossing.

#### Wetlands:

There are 0.17 miles identified for new road construction in wetland RMZ buffers. A portion of the road at the southeast edge of Block 355 129 enters the wetland, potentially cutting off wetland functions and values to the lower associated stream. Over the long-term the construction and use of forestry-related roads exacerbates sedimentation in wetlands, aiding in nutrient and pollutant delivery as well as degrading wetland function, water quality, and habitat.

#### Floodplains:

No proposed actions from this project are likely to have long-term direct impacts on floodplains.

### **Indirect Impacts**

No indirect impacts from this project are likely to impact surface water, wetlands, or floodplains.

### **Cumulative Impacts**

#### Surface Water:

As discussed above, several other timber sales have occurred in the Lower San Poil Creek RMU over the course of the past 5 years. These timber sales have occurred outside of the John Tom and Dick Creek WMUs, but all three contribute to impacts on the water quality in the San Poil and Columbia River. Between these three sales (Cache Creek, Keller Ridge, McAllister), 7,225

acres were harvested, or will be before these sale periods end. The John Tom Sale will add an additional 2,025 acres of timber harvest in the RMU, for a cumulative total of 9,250 acres harvested or proposed for harvest since 2018. Each acre of timber harvest results in sediment generation, nutrient transport, and hydrologic alteration.

Wetlands:

Increased runoff and sedimentation associated with ground based harvest systems and road construction, reconstruction, and forestry related use are expected to have cumulative systemic impacts to the wetlands adjacent to harvest blocks as well as the downstream Freshwater Forested/Shrub Wetland near the mouth of John Tom Creek where it enters the San Poil River.

Floodplains:

No additional impacts to the Dick Creek floodplain have been documented prior to this project. Therefore, there are no likely cumulative impacts from the proposed action.

**Water Resources Impacts – Conclusions**

<b>Water Resource Type</b>	<b>Short-Term Direct Impacts</b>	<b>Long-Term Direct Impacts</b>	<b>Indirect Impacts</b>	<b>Cumulative Impacts</b>
Surface Water	Yes	Yes	None	Yes
Wetlands	Yes	Yes	None	Yes
Floodplains	None	None	None	None

**Table 10. Water Resources Impact Summary from the Proposed Action.**

The project would result in short term impacts to soil and surface water, particularly within the top 12-24 inches. Long term impacts (after the conclusion of the project) would be minimal as vegetation reestablishes and stabilizes slopes. However, the cumulative impact of the project, in conjunction with previous timber sale impacts, would impact water quality and quantity throughout the Lower San Poil River RMU. The Proposed Action would result in short term and cumulative impacts to water resources including surface water and wetlands.

**Resource Use Patterns**

Transportation Networks

The John Tom timber sale project proposes the construction of 18.3 miles of new road, and 24.3 miles of reconstruction of existing forest road. The use of these roads for timber sale operations

would result in short-term impacts to the existing transportation network through physical degradation of roads. Large vehicles carrying heavy machinery and loads of logs cause road quality to deteriorate. This would occur throughout the life of the project.

### **Direct Impacts – Long-Term**

The existing roads network is not well maintained; creation of new roads and reconstruction of existing roads would decrease the amount of maintenance that can be allocated to existing segments, and cause road quality to deteriorate over time.

### **Indirect Impacts**

No indirect impacts from this project are likely to impact the transportation network.

### **Cumulative Impacts**

In addition to the John Tom timber sale, three other timber sales have occurred in the San Poil RMU in the past five years. This results in cumulative stress on the existing and proposed transportation network through the use of heavy machinery and large vehicles.

Short- and long-term direct impacts, and cumulative impacts to water resources have been identified with the proposed John Tom Timber Sale project. Implementing the proposed action would result in new and cumulative impacts to water quality and wetlands. Mitigation measures to attenuate these impacts are outlined in the next section.

### **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/reconstructed 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 would 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.

A preliminary transportation memo was distributed on 2/2/23 identifying roads that should not be used due to stream or wetland adjacency. These segments were then field verified, and adjustments were made accordingly. Several segments identified for review overlapped with roads proposed for use in the sale: John Tom Creek Road and Dick Creek Road are of particular concern. Both roads are proposed for use. If timber harvest is to occur in these areas, segments of road encroaching on the stream buffer should be relocated away from the stream.

A layer was also provided of all restored roads within the project area, including decommissioning, closure, and permanent abandonment. In the original preliminary transportation memo, the following was stated: “The Restoration Program has completed several projects in and around this timber sale area, including the 2015 East Sanpoil Watershed Restoration project. Six road segments included in the 2015 project are within or directly adjacent to the John Tom sale area; these roads have been decommissioned or permanently abandoned, and are not available for use.” This shall be adhered to.

The provided culvert shapefile identified 53 proposed culverts. Based on Streamstats analysis of drainage size and hydrologic inputs, all proposed culverts are appropriately sized for 100-year flows.

21 blocks were identified for harvest using a tethered or cable assist harvest system. 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. 585.1 acres slated for tethered logging system use were identified as having severe risk of compaction, erosion, rutting, or some combination of the three.

In order to mitigate for impacts to soils from compaction, as well as risks to aquatic resources from sediment mobilization and transportation to surface water from ground based harvest methods (including tethered logging), the following seasonal mitigations were developed:

**Table 11. Cable assist blocks with seasonal mitigations.**

<b>Comp</b>	<b>Block</b>	<b>Acres</b>	<b>Prescription</b>	<b>Skid System</b>	<b>Seasonal Mitigation</b>
355	11	15.92	RRT	TH	Winter per ETD
355	18	38.06	CT	TH	Summer/winter
355	110	11.47	STOR	TH	Summer/winter
355	111	22.73	IC	TH	Winter per ETD
358	118	48.26	RRT	TH	Summer/winter
355	125	14.12	ST	TH	Winter per ETD
358	131	73.08	CT	TH	Winter per ETD
355	135	28.97	CT	TH	Winter per ETD
355	147	18.45	CT	TH	Summer/winter
355	148	41.19	RRT	TH	Winter per ETD
358	178	45.41	IC	TH	Winter per ETD

Where compaction is the more likely pathway for soil degradation, summer or winter harvest is permissible, as dry or frozen soils are less susceptible. When rutting and erosion are more likely, winter harvest is required, as frozen ground is less likely to result in soil mobilization.

Several blocks identified for harvest systems other than cable assist, including multiple tractor blocks, posed concerns for sediment transport due to soil composition and proximity to aquatic resources. These blocks received seasonal restrictions as well.

**Table 12. Tractor blocks with seasonal mitigations.**

<b>Comp</b>	<b>Block</b>	<b>Acres</b>	<b>Prescription</b>	<b>Skid System</b>	<b>Seasonal Mitigation</b>
358	13	79.81	STOR	T	Winter per ETD
355	119	35.49	ST	T	Winter per ETD
355	120	138.68	IC	T	Winter per ETD
355	128	15.70	CT	T	Winter per ETD
355	129	62.73	ST	T	Winter per ETD

Several additional blocks required specialized mitigations due to locations and operational challenges with harvest systems.

**Table 13. Tractor blocks with seasonal mitigations.**

<b>Comp</b>	<b>Block</b>	<b>Acres</b>	<b>Prescription</b>	<b>Skid System</b>	<b>Seasonal Mitigation</b>
358	13	79.81	STOR	T	Winter per ETD
355	119	35.49	ST	T	Winter per ETD
355	120	138.68	IC	T	Winter per ETD
355	128	15.70	CT	T	Winter per ETD
355	129	62.73	ST	T	Winter per ETD

Several additional blocks required specialized mitigations due to locations and operational challenges with harvest systems.

**Table 14. Blocks with additional mitigations.**

<b>Comp</b>	<b>Block</b>	<b>Acres</b>	<b>Prescription</b>	<b>Skid System</b>	<b>Mitigation</b>
358	130	78.67	SW	TH	Buffers created around drainages
355	146	19.68	RRT	TH	If tether: winter only; if cable: any season
358	149	94.81	IC	TH	Buffers created around drainages
355	151	34.26	RRT	TH	If tether: winter only; if cable: any season

Planners and Operators should develop practices that would effectively mitigate for 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 would 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

Per Colville Confederated Tribes Law and Order Code [CCT 4-7-67(e)] Riparian Management Zone buffers are required for wetlands.

**Table 15. Wetland RMZ Requirements.**

<b>Comp</b>	<b>Block</b>	<b>Wetland</b>	<b>Location</b>	<b>CCT Water Type</b>	<b>RMZ</b> (applied to each side of wetland)
355	120	E.SPL_130	Northern Edge of Block	III	100 ft
355	129	E.SPL_136	Southern Edge of Block	III	100 ft

Within the project area, 2,036.82 acres are identified for broadcast burn. The CTCR Wetlands program supports prescribed burning as a means of ecological regeneration and reduction of excess fuels in wetlands and Riparian Management Zones. Precautions should be adhered to in managing prescribed burns in streams, wetlands and riparian management zones (RMZs) for both: Hand dig line and no equipment entry or staging in wetlands, wetland or stream buffers, or stream crossings. Burn wetland areas only in atmospheric conditions conducive to Low Soil Burn Severity; avoid burning of slash piles and other bulk materials in wetlands. With harvest related tree removal the risk of sedimentation to the wetlands increases. Also, with the combined loss of vegetation through harvest and burning, excess nutrient and pollutant uptake and filtration would be limited; therefore, it is critical that no pesticide or additive fertilizer be used in burned areas up-slope of wetlands or streams until vegetative structure is re-established.

Additionally, no restored roads should be used for fire suppression, unless all other practicable options have been exhausted. Contingency line locations should be identified prior to initiation of burning, and should not include roads that have been decommissioned, permanently abandoned, or otherwise restored.

#### **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 from 1,998 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, specifically the elk herd associated with the Dick Creek area. This reduction and fragmentation of the habitat would increase the vulnerability of big game to legal and illegal harvest as well as the elements of weather. The impacts of this would be mitigated by reducing block size and establishing reserve patches in areas that would result in openings no greater than 600 feet. These patches would be established to provide hiding cover for big game and other wildlife species.

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 and the removal of conifers from suppressed stands.

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 CTCR IRMP targets tribal road density would be 3.5 mi/ mi<sup>2</sup> or less, and to reduce tribal road density to 1.5 mi/ mi<sup>2</sup> wherever feasible post project. 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 IRMP target. All new roads should be considered for closure to comply with the roads target.

### **Protection Measures**

The John Tom Timber Project is located within the Hellsgate Wildlife Reserve. This area includes critical winter range for big game including mule and white-tailed deer, moose and elk.

Due to the sensitivity of these wildlife species during the winter months the Wildlife department is recommending seasonal mitigations to reduce the impact of harvest activities. Block numbers and seasonal mitigations are found in Table 16.

**Table 16. Blocks with Seasonal Mitigations.**

<b>Comp</b>	<b>Block</b>	<b>Rx</b>	<b>Wildlife S_Mitigations</b>
358	113	RRT	Summer Only
358	002	PCT	Summer Only
358	001	PCT	Summer Only
355	015	PCT	Summer Only
355	114	SW	Summer Only
358	232	SW	Summer Only
358	132	SW	Summer Only
355	164	SW	Summer Only
355	126	STOR	Summer Only
355	127	STOR	Summer Only
355	138	IC	Summer Only
355	018	CT	Summer Only
355	134	ST	Summer Only
355	107	RRT	Summer Only
355	007	STOR	Summer Only
358	171	IC	Summer Only
358	276	IC	Summer Only
358	176	IC	Summer Only
355	105	RRT	Summer Only
358	127	IC	Summer Only
358	149	IC	Summer Only
358	136	STOR	Summer Only
101	379	STOR	Summer Only
101	379	STOR	Summer Only
101	379	STOR	Summer Only
358	147	SW	Summer Only
358	118	RRT	Summer Only
358	130	SW	Summer Only
358	162	RRT	Summer Only
358	117	SW	Summer Only
355	167	CT	Summer Only

Large blocks that reduce habitat and cover requirements for big game species would need wildlife reserve patches to provide cover within 600 feet of all treatment areas. The blocks requiring reserve patches are listed below in Table 17.

**Table 17. Wildlife Reserve Patch Blocks.**

<b>Wildlife Reserve Patch</b>	
<b>Comp</b>	<b>Block</b>
358	13
358	136
358	113
358	162

Bitterbrush stands within the project boundary are essential as browse for mule deer to survive the winter months. These stands are primarily on south facing aspects further down in a drainage. Operations in blocks that have a significant bitterbrush component should be conducted in a way that minimizes disturbances to these stands.

**Table 18. Blocks with a significant bitterbrush component.**

<b>Bitterbrush Stands</b>	
<b>Comp</b>	<b>Block</b>
355	119
355	129
355	134
358	13
358	136
101	379

Blocks 117 and 113 are critical use areas for one of the Tribe's largest and most robust elk herds. The treatment of these blocks could have a negative impact on the health and size of this herd. These blocks were requested to have a buffer above the road to provide thermal cover for this herd. New road construction increases disturbance and access to this herd, so additional road closures in the form of tank traps, or slash piles would be used to prevent disturbance.

New road closure locations are located in Appendix A and B. These are approximate locations and field verified locations would need to be determined by staff from the Wildlife and Forestry Departments.

There are 5 broadcast burns being proposed within the John Tom project. As stated above this area is within the Hellsgate Reserve and these broadcast burns are proposed within the critical wintering grounds for multiple big game species. The Dick Creek broadcast burns propose to treat two blocks one which is 756 acres and the other which is 571 acres. The Wildlife program

is concerned that burning this in a single year would have negative impacts on wildlife. To reduce the potential of these impacts we strongly recommend breaking up the burns into 200 acre blocks to reduce density on unburned landscapes and burn these blocks over 3-5 year time period. Burning in the spring allows for more regrowth before big game needs the forage in the winter months and alternating years between Dick Creek and John Tom burn blocks would prevent successive years of reduced forage for big game.

The proposed action of the John Tom Project falls within five of the Reservation WMUs which includes John Tom Creek, Dick Creek, South Fork Nine Mile Creek, Hellgate Canyon and Columbia River 18. The CTCR IRMP has a target of 3.5 mi/mi<sup>2</sup> tribal forest road density during harvest and 1.5 mi/ mi<sup>2</sup> post-harvest. Road densities on the Reservation are calculated using the WMU boundaries; Table 19 depicts the road density for the affected WMU's.

**Table 19. Road Density by WMU.**

<b>WMU</b>	<b>Roads (mi)</b>	<b>WMU (ac)</b>	<b>WMU (mi<sup>2</sup>)</b>	<b>Road Density (mi/mi<sup>2</sup>)</b>
<b>John Tom Cr</b>	41.73	4903	7.66	5.447780679
<b>Dick Cr</b>	22.55	4388	6.86	3.287172012
<b>Columbia River 18</b>	18.32	4673	7.3	2.509589041
<b>So Fork NineMile Cr</b>	146.2	14319	22.37	6.535538668
<b>Hellgate Canyon</b>	10.8	1990	3.11	3.47266881

Currently two out of five 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 would be working together to identify roads to close after harvest operations are completed. Alternative B is recommending 18.29 miles of new road construction and 25.52 miles of reconstruct. Tribal resolution/IRMP states that all new road construction is to be closed, or if the new construction is need for long term use, mitigation efforts would be made to close nearby road(s) of equivalent road miles. The Alternative B new road density is in Table 20.

**Table 20. Alternative B Road Density.**

WMU	Roads (mi)	Proposed New Rd (mi)	Proposed Recon Rd (mi)	Total Rd (mi)	WMU (mi <sup>2</sup> )	New Denisity (mi/mi <sup>2</sup> )
<b>John Tom Cr</b>	41.73	9.49	10.75	51.22	7.66	6.686684
<b>Dick Cr</b>	22.55	11.49	9.89	34.04	6.86	4.962099
<b>Columbia River 18</b>	18.32	0.47	0.032	18.79	7.3	2.573973
<b>So Fork NineMile Cr</b>	146.2	0	3.16	149.36	22.37	6.676799
<b>Hellgate Canyon</b>	10.8	0	0.46	11.26	3.11	3.620579

**Federally Threatened and Endangered Species**

The BIA and Tribal 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.

**Resource Use Patterns**

Hunting, Fishing, Gathering

“The Tribes regulate the harvest of wildlife resources within the aboriginal territory of the Colville Tribes. In regulating wildlife and recreation resources of the Reservation, tribal members are afforded the greatest possible freedom to use and enjoy these resources, consistent with the preservation and improvement of these resources for future generations. Wildlife found on the Reservation may be taken only at such times, in such places, and in such a manner as provided by tribal law” (CTCR 2015).

**Mitigation Measures**

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 John Tom project area. The following mitigation efforts are requested by the Wildlife Department in the case that Alternative B “proposed action” is chosen and implemented.

- 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 Biologist; all timber harvest is prohibited within 660 feet of active bald eagle nests.

- If at any time during harvest a Northern goshawk, great gray owl or other raptor nest and/or territory are thought to be found, cease work within 750 feet and please contact the District Biologist.
- Significant wildlife sightings should be reported to the District Biologist for assessment and review.
- All lynx tracks, sightings, or dens should be reported to the District Biologist for immediate assessment and review.
- Fawning/calving habitat: all areas of deciduous trees within wet areas and draws should be protected from disturbances.
- Wildlife corridors should be setup to allow for natural movement between seasonal and daily habitats.
- Blocks that are scheduled to be cable logged need to have their reserve patches and/or wildlife travel corridors setup in a way that would provide habitat for wildlife while still allowing the operation of a cable system to be operational.
- Snags in harvest units should be retained in clumps with their associated understory vegetation intact to insure their retention after site preparation. Green leaf trees would be identified and retained as future snags in all areas. The majority of large diameter trees should be left standing
- 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.
- In areas where large blocks of timber would be treated under the burn RX prescription visual shields should be left to provide cover and escape routes for wildlife. This would reduce fragmentation of the habitat and decrease the vulnerability of big game to legal and illegal harvest. These areas would act as wildlife corridors and should be setup to allow for natural movement between seasonal and daily habitats.
- Blocks that have a burn RX work being done either in conjunction or independently from timber harvest need to ensure that all large woody debris targets are being met. In addition in blocks that are piled a minimum of 2-3 piles per acre need to be left on site and not burned.

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

## **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 two archaeological sites recorded in the John Tom Forestry Area of Potential Effect (APE). One archaeological site 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 one archaeological site eligible for the National or Colville Registers identified within the APE unless mitigation measures are taken to protect the site. The other resources within and adjacent to the John Tom Forestry project area are outside the APE and would not be affected by the proposed project.

### **Mitigation for Cultural Resources**



Twenty-nine archaeological sites, four TCPs, seven historic Indian allotments, one historic GLO road, one GLO trail and three historic mining claims have been identified within the John Tom project area. Two archaeological sites are within the APE of the project. The Tribal Archaeologist has worked with SPFD to mitigate the effects of Alternative B and would coordinated with the Timber Sales Officer (TSO) and other forestry 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: a reasonable buffer be implemented around the resource and/or brush and hazard tree removal be conducted to make a fire break to protect the resource from the proposed fire activity. All other resources should not be affected project implementation. The Tribal Archaeologist would coordinate with the TSO and others working in the 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 and important for maintaining soil health and natural plant community vigor. The annual precipitation for the John Tom forest project area ranges from 10” in the western portion near the Sanpoil River to a high of 14” moving east with elevational changes. This range of average annual precipitation indicates natural understory recovery can be challenging with a high degree of soil disturbance. Due to low water availability soil that has been highly disturbed can take a longer duration of time to re-vegetate with desirable plants while many noxious weed species with low water requirements

have a competitive advantage. It is important to consider supplemental recovery activities in these types of environments.

According to the NRCS soils layer there are 13 Forest Habitat Types in the John Tom Forest Project area including the quaking aspen series. There are also 8 Range Ecological Sites identified in this highly diverse area. Forest habitat types are near 75% of this area with range sites making up the remainder. The ponderosa pine/antelope bitterbrush, Idaho fescue phase habitat type represents near 50% of the forest communities followed by Douglas-fir/common snowberry, and Douglas-fir/mallow ninebark, heartleaf arnica phase. These habitat types are usually associated with drier forested areas and are typical of transition zones from open range to forest. These kinds of transition zones are normally highly diverse and important for wildlife.

Of the 13 forest habitat types represented in John Tom 9 are represented in the blocks scheduled for treatment activity. The most dominant habitat types are again ponderosa pine/antelope bitterbrush, Idaho fescue phase, Douglas-fir/common snowberry, and Douglas-fir/mallow ninebark, heartleaf arnica phase. The most common native bunchgrasses in these forest communities are bluebunch wheatgrass, and Idaho fescue. Pinegrass is also listed but is less prominent than in wetter forested areas. If highly disturbed areas need rehabilitation a mix of bluebunch wheatgrass/Idaho fescue at a 2/1 mix should be considered. Due to slow germination characteristics of native bunchgrasses a short-lived companion cover crop should be considered for planting along with the native seed mix. This would assist with erosion concerns and provide competition against weed establishment while the native plants take hold.

Landings, skid trails, roads, and pile burns would likely have the most potential for soil disturbing activities during the forest harvest activities. If monitoring determines a need, inputs in the form of herbicide treatment and suitable native plant seeding should be considered to assist understory recovery. Intermediate wheatgrass and/or Siberian wheatgrass should not be used as they are nonnative, persistent, and highly competitive. If something is needed to quickly provide ground cover, there are short lived 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 mix if assistance is needed.

## **4.7 Air Quality**

This project is located within the San Poil River airshed. The airshed originates near the city of Republic, within the Okanogan Highlands and flows south through the Colville National Forest, Okanogan National Forest, and the Colville Indian Reservation. The area has one gas station as the only point source of emission. Nonpoint sources include residential wood stoves, prescribed fires and wildfires. Generally air quality of the area is very good with the majority of days across the reservation were in the least polluted category. (CAR 2018)

### **Impacts to Air Resources for Alternative B: Proposed Action**

Timber harvesting, a critical component of forest management, significantly influences air quality, particularly through the emission of particulate matter (PM). PM, a blend of solid particles and liquid droplets, permeates the air, originating from both natural and human-made sources. This document delves into the nature of PM, its various forms such as PM10 and PM2.5, and their sources, including timber harvesting activities. Understanding the size, composition, and origin of these particles is crucial in assessing their impact on air quality and developing strategies to mitigate their effects, especially in forestry operations.

## **4.8 Fuels/Fire Management**

### **Impacts to Fuel/Fire Resources Alternative A: No Action**

The effect of No action on historic and desired future regimes would be to allow site conditions to continue to depart from historic conditions and further increase the probability of a wildfire scenario that would likely cause stand replacement on a considerable portion of the project area. No Action Alternative leaves the project area at risk of moderate to high severity wildfire moving easily across the landscape, and poses the greatest risk to people, property and resources. Fire suppression activities would continue as in the past. Although much of this area historically burned at less than 50 year intervals, current policy dictates that this would not occur. This exclusion of fire has resulted in an overabundance of vegetation. More fire prone species such as the true firs and Douglas fir have dominated the understory and created an abundance of ladder fuel. These areas would continue to develop the stand composition and structure that makes them more prone to stand replacement events.

### **Impacts to Fuel/Fire Resources Alternative B: Proposed Action**

Risk of high severity wildfire moving across the landscape would be greatly reduced under the action. However, risk of high severity wildfire would not be reduced across every acre of the John Tom Project. Alternative B would initially create Approximately 16,024.1 tons of dead and down fuels on all treatment units, temporarily increasing hazard and resistance to control from the current condition. Once slash treatments are Completed the hazard would decline on most acres. Prescribed treatments would result in reducing the risk of catastrophic fire from occurring on 2,025 acres by moving stand density, structure and species composition toward the normal historic range. The Broadcast Burn treatments would reduce fuel loading by approximately 16,024.1 tons of natural fuels while reintroducing fire. Impacts would be lessened by combining landscape burning with harvest blocks reducing Fire line construction normally constructed for site prep reasons. Utilizing existing (open) roads, streams for control lines during burning operations would reduce disturbance to site while reintroducing fire back into the ecosystem. Prescribed fire would be used to reduce stocking levels, increase crown base heights and reducing the potential for crown fire. Additional restoration goals would be met within the riparian areas associated with landscape fuels treatments. These riparian areas are often subject to equipment exclusion zones which can make fuels reduction treatments prohibitively costly. The use of prescribed fire in these areas is a low impact strategy to accomplish fuels reduction, reallocate growth, free up growing space and generally improve overall forest health. Smoke and associated pollutants would be generated from burning fuels.

#### **4.9 Cumulative Impacts**

Cumulative impacts are addressed in the FEIS for the IRMP (CAR 2018). 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.

#### **4.10 Social and Economic Impacts**

The median household income on the Reservation according to the 2010 US Census was \$35,534. The CTCR’s natural resource management plays an important role in the local regional economy on and off the Reservation. The Forestry, logging and milling industry accounts for 20% of the working population in the Region of Okanogan and Ferry Counties (CAR 2018). The CTCR itself is the single largest employer in both Ferry County and Okanogan County (CAR 2019). The communities benefit from the CTCR Natural Resource Management not only directly through employment but also the social programs funded directly from Tribal expenditure of funds generated through Timber Harvest. More detailed discussion of the population dynamics and social and economic impacts of CTCR’s natural resource management can be found in the CTCR IRMP FEIS (CAR 2018).

## 5.0 List of Preparers

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

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# 7.0 Appendices

## 7.1 Appendix A: Activity Table

Comp	Block	Acres	Rx	LoSy	LS_Ac	Slash_Ac	MSP_Ac	BB_Ac	RXB_Ac	S_Restrict	WTree	DZ_Length
358	1	19.1	PCT		0.0	0	0	0	0	Summer		0
358	2	20.1	PCT		0.0	0	0	0	0	Summer		0
358	3	15.9	PCT		0.0	0	0	0	0	None		0
355	7	26.4	STOR	T	26.4	0	0	0	26.4	Summer	Yes	0
355	11	15.9	RRT	TH	0.0	15.9	0	15.9	0	Winter	Yes	0
358	13	79.8	STOR	T	0.0	0	0	0	79.8	Winter	Yes	0
355	15	12.0	PCT		0.0	0	0	0	0	Summer		0
355	18	38.1	CT	TH	0.0	38	0	0	38	Winter/Summer	Yes	0
355	101	9.3	RRT	T	0.0	9.3	9.3	0	0	Winter/Summer	Yes	0
355	105	39.2	RRT	TH	0.0	39.2	0	39.2	0	Summer	Yes	0
355	106	20.6	IC	TH	20.6	0	0	0	0	None	Yes	0
355	107	23.1	RRT	TH	0.0	23.1	0	23.1	0	Summer	Yes	0
355	110	11.5	STOR	TH	11.5	0	0	0	0	Winter/Summer	Yes	0
355	111	22.7	IC	TH	22.7	0	0	0	0	Winter	Yes	0
358	113	65.1	RRT	C	0.0	65	0	65	0	Summer	Yes	0
355	114	69.7	SW	C	0.0	69.7	0	69.7	0	Summer	Yes	0
358	117	92.1	SW	C	0.0	0	0	0	0	Summer	Yes	0
358	118	48.3	RRT	TH	0.0	48.3	0	48.3	0	Summer	Yes	0
355	119	35.5	ST	T	0.0	35.5	0	0	35.5	Winter	Yes	0
355	120	138.7	IC	T	138.7	0	0	0	0	Winter	Yes	0
355	125	14.1	ST	TH	0.0	14.2	0	0	14.2	Winter	Yes	0
355	126	19.7	STOR	T	0.0	0	0	0	0	Summer	Yes	0
355	127	18.7	STOR	T	18.7	0	0	0	0	Summer	Yes	0
355	128	15.7	CT	T	15.7		0	0	15.7	Winter	Yes	0
355	129	62.7	ST	T	0.0	62.7	0	0	62.7	Winter	Yes	0
358	130	78.7	SW	TH	0.0	78.7	0	78.7	0	Summer	Yes	0
358	131	73.1	CT	TH	73.0	0	0	0	0	Winter	Yes	0
358	132	28.6	SW	TH	28.6	0	0	0	0	Summer	Yes	0
355	134	44.4	ST	T	0.0	44.4	0	0	44.4	Summer	Yes	0
355	135	29.0	CT	TH	29.0	0	0	0	0	Winter	Yes	0
358	136	101.8	STOR	T	0.0	0	0	0	101.8	Summer	Yes	0
355	138	36.9	IC	T	36.9	0	0	0	0	Summer	Yes	0
355	142	10.4	CT	T	10.4	0	0	0	0	None	Yes	0
355	146	19.7	RRT	TH	0.0	19.7	0	19.7	0	Winter	Yes	0
355	147	18.4	CT	TH	18.5	0	0	0	0	Winter/Summer	Yes	0
355	148	41.2	RRT	TH	0.0	41.2	0	41.2	0	Winter	Yes	0
358	149	94.8	IC	TH	94.8	0	0	0	0	Summer	Yes	0
355	151	34.3	RRT	TH	0.0	34.3	0	34.3	0	Winter	Yes	0
358	162	91.3	RRT	T	0.0	91.3	0	0	91.3	Summer	Yes	0
355	164	19.6	SW	TH	0.0	19.6	0	19.6	0	Summer	Yes	0
358	165	11.6	STOR	T	11.6	0	0	0	0	None	Yes	0
355	167	87.9	CT	TH	87.9	0	0	0	0	Summer	Yes	0
358	171	66.3	IC	T	66.3	0	0	0	66.3	Summer	Yes	0
358	172	43.0	IC	T	43.0	0	0	0	0	Summer	Yes	0
358	176	37.1	IC	T	37.1	0	0	0	37.1	Summer	Yes	0
358	178	45.4	IC	TH	45.4	0	0	0	0	Winter	Yes	0
358	179	33.6	SW	T	0.0	0	33.6	0	0	Summer	Yes	0
358	232	31.4	SW	TH	0.0	0	31.4	0	0	Summer	Yes	0
358	276	36.4	IC	TH	36.4	0	0	0	36.4	Summer	Yes	0
101	379A	9.7	STOR	T	9.7	0	0	0	0	Summer	Yes	0
101	379B	25.9	STOR	T	25.9	0	0	0	0	Summer	Yes	0
101	379C	7.8	STOR	T	7.8	0	0	0	0	Summer	Yes	0



# 7.2 Appendix B: Consultation

Request for Determination of Effect

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

**Project Name:** 23pp35 John Tom 2024 Forest Management Project.  
**Proponent(s):** San Poil Forestry District, Colville Confederated Tribes  
**Legal Description:** T 29N, R 33E, Sec(s) 1-3, 9-12, 13-16, 20-24, 25-29, 33 & 34;  
T 29N, R 34E, Sec(s) 07, 18, 19 & 30

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
- 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 Title: IRMP Coordinator Date: 02/01/2024  
(responsible agency official)

**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. 23pp36 John Tom 2024 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] Date: 2-5-24  
(Tribal Historic Preservation Officer)



The Confederated Tribes of the Colville Reservation  
**MEMORANDUM**



Tuesday, March 12, 2024

TO: Chasity Swan, IRMP Coordinator

FROM: Ossian Laspa, San Poil Wildlife Biologist

SUBJECT: 23pp35 John Tom 2024 Forest Management Project ESA Memo

This memo is being submitted as a requirement of the U.S. Fish and Wildlife Service (USFWS) section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C 1531 et seq.).

The purpose of the Act is to provide a means whereby threatened and endangered species and 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.

The following list is provided pursuant to section 7 of the Endangered Species Act, and fulfills the requirement for the 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”.

- Yellow-billed Cuckoo, *Coccyzus americanus*, Threatened. The yellow-billed cuckoo is a migratory bird that overwinters in South America, and nests in portions of the central United States. Per WDFW, breeding likely ended in the state of Washington by the 1940s. There have been no known sightings on the Colville Reservation; yellow-billed cuckoos are extremely unlikely to occur within the project.
- Monarch Butterfly, *Danaus plexippus*, Candidate. Monarch butterflies rely on milkweed for their habitat requirements. Milkweeds are patchily found in southern Washington along rivers and the Columbia Basin. Milkweeds have not been found within the project area and there have been no sightings. Monarch butterflies are extremely unlikely to occur within the project area.
- Bull Trout, *Salvelinus confluentus*, Threatened. Bull trout in the John Tom Project Area and surrounding areas are extremely rare and believed to be extirpated. Within the John Tom Project area are John Tom, Dick, and two unnamed creeks which are tributaries to the Sanpoil River and to Lake Roosevelt (upper Columbia River). The Lake Roosevelt area is included in the Northeast Washington Research Needs area of the Mid-Columbia Recovery Unit for bull trout. 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. Bull trout observation data within the Northeast Washington Research Needs Area is not well tracked, is sporadic, and often anecdotal, although they are rarely encountered during large-scale standardized fishery surveys. Bull trout present in the Northeast Washington Research Needs Area

likely derive from local populations in the Coeur d'Alene/Spokane River or Pend Oreille River basins, or from tributaries to the Columbia River in Canada and have been entrained over dams. While bull trout are rarely encountered in Lake Roosevelt, bull trout are not likely to be present in the project area and downstream water quality impacts to the Sanpoil River/Lake Roosevelt would not impact spawning or rearing habitat and as such, bull trout very unlikely to be impacted by activities within the project area

After reviewing #23pp35 John Tom 2024 Forest Management Project this project will have No Effect on the three species listed above.

*Ossian Laspa* 3/12/24

Ossian Laspa  
Wildlife Biologist  
509-634-2434



## United States Department of the Interior

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



In Reply Refer To:  
Project Code: 2024-0020227  
Project Name: John Tom Timber Sale

November 28, 2023

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 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 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:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.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/program/migratory-bird-permit/what-we-do>.

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/library/collections/threats-birds>.

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/partner/council-conservation-migratory-birds>.

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

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## PROJECT SUMMARY

Project Code: 2024-0020227

Project Name: John Tom Timber Sale

Project Type: Forest Management Plan

Project Description: This is a Timber Sale located within John Tom and Dick Creek drainages. Approximately 17 mil board feet of timber will be harvested over the next 5-6 years.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@48.01375505,-118.61444352044,14z>



Counties: Ferry County, Washington

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 3 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<sup>1</sup>, 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.

## BIRDS

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

## FISHES

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

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## CRITICAL HABITATS

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

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**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](mailto:ossian.laspa.fnw@colvilletribes.com)

Phone: 5096342434

**LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Bureau of Indian Affairs

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## 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) 634-1383



Wednesday, February 01, 2023

**To:** Michael Langstaff, San Poil Forestry Forester  
Spus Wilder, San Poil Forestry Forester  
Dave Clark, San Poil Forestry District Officer

**cc:** Darnell Sam, NPS Management Coordinator  
Joseph Ezell, Restoration Program Manager  
Stacy King, Wetland Specialist  
Dennis Moore, Resident Fish Biologist  
Ossian Laspa, Assistant District Biologist  
Chasity Swan, IRMP Coordinator  
Anita McKinney, Assistant IRMP Coordinator

**From:** Charlotte Axthelm, Watershed Analyst

**Subject:** John Tom Timber Sale 2024 Preliminary Transportation Memo

Mike, Spus, and Dave

I have attached a map showing roads in the John Tom 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 John Tom Timber Sale PPF.

Important features to note in regards to the John Tom 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.
- John Tom and Dick Creek are both type 2 tributaries to the San Poil located within the project area. Culverts installed on John Tom and Dick Creek, any type 2 or 3 tributaries, or any other unnamed type 2 or 3 streams within the timber sale area, will require fish passage in areas where gradient barriers are not a factor.
- 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 still 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.
- The Restoration Program has completed several projects in and around this timber sale area, including the 2015 East Sanpoil Watershed Restoration project. Six road segments included in the 2015 project are within or directly adjacent to the John Tom sale area; these roads have been decommissioned or permanently abandoned, and are not available for use.
- 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.

Once a transportation plan has been developed, accounting for the information in the attached shapefiles, the following is necessary for a complete and thorough review:

- A shapefile with the location of all proposed new and reconstruct roads, including haul routes, to pavement.
- A shapefile with the location, size, and proposed treatment for all crossings on road proposed for use in the sale.
- Sufficient time and conditions (i.e. prior to snowfall) to field evaluate proposed roads and crossings.

I, or another representative from the Restoration Program, am available to assist in the planning and field review of proposed roads and crossings, in order to develop a collaborative and sustainable transportation network that will benefit Forestry, the membership, and the environment.

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—2 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) JohnTom2024PermClosed**

Previously restored/will be restored

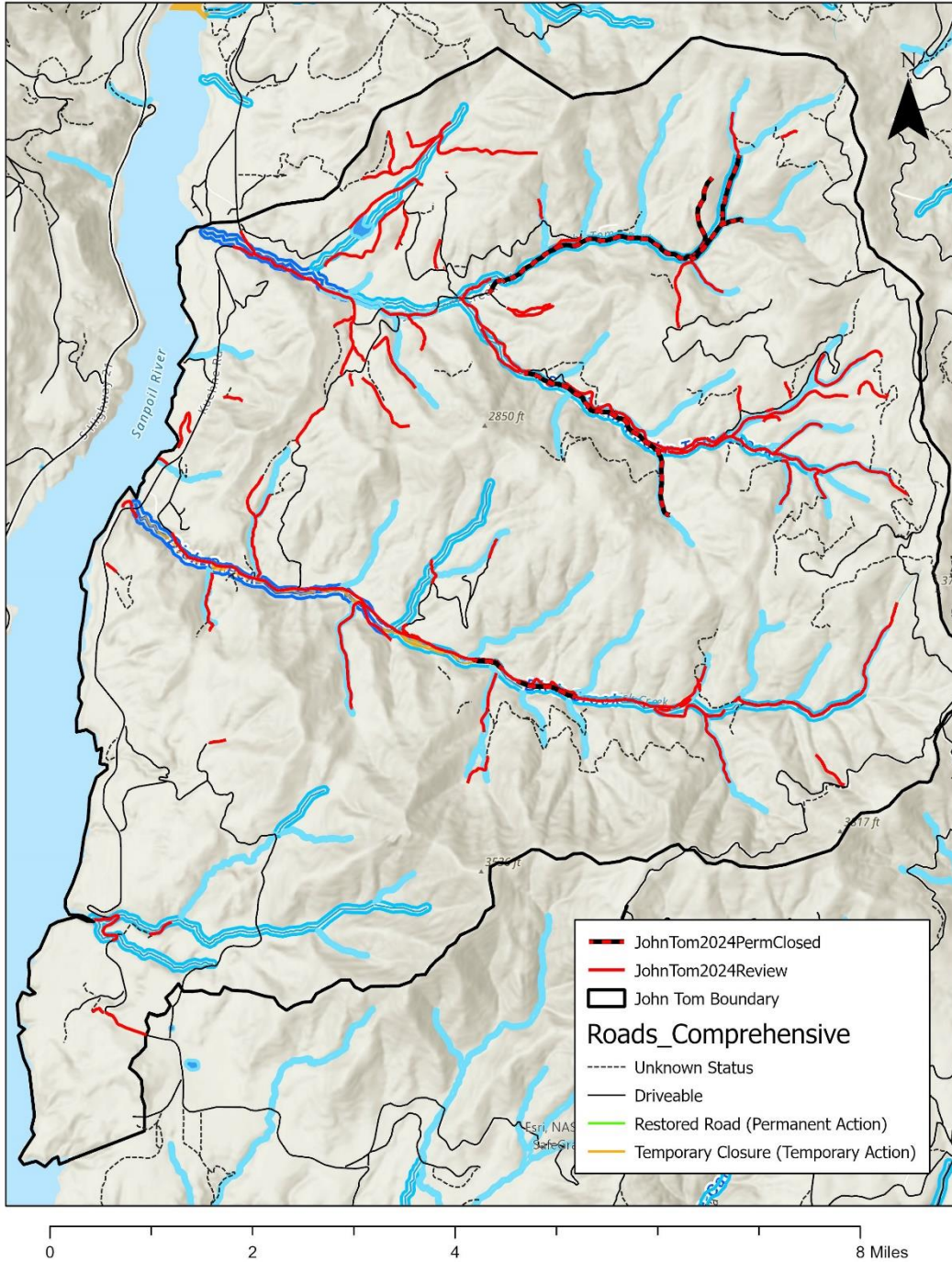
- a. These alignments are not available for reconstruction.
- b. New construction should not follow these alignments.
- c. All of these segments have been through 3P and have received approval from the 3P team for permanent closure.

#### **2) JohnTom2024Review**

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-armorings, gravel surfacing, magnesium chloride, realignment, post-sale closure, etc.

# John Tom 2024 Preliminary Transportation Memo



## 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.

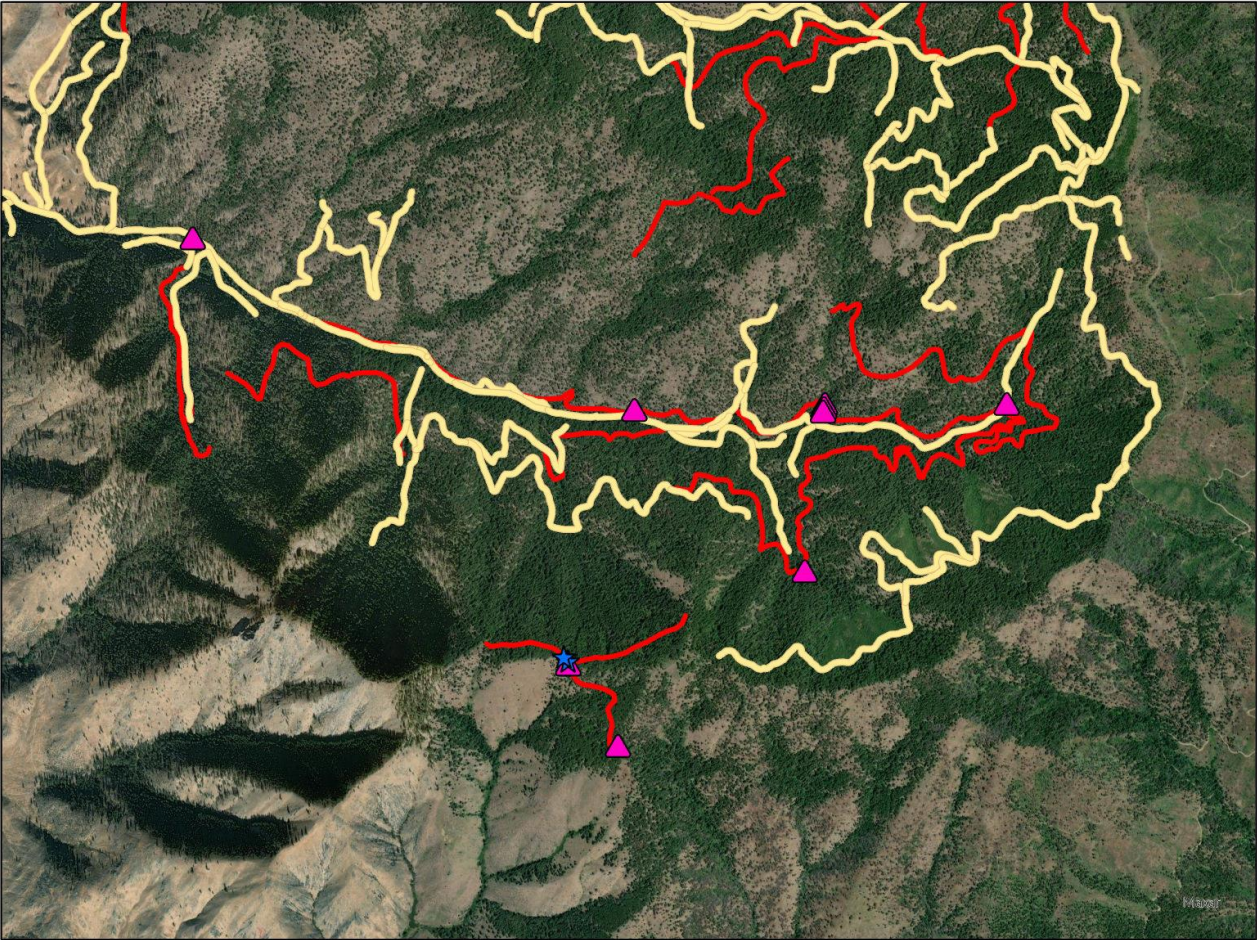
(2) Any discharge of dredged or fill material into waters of the United States incidental to the above activities must have a permit if it is part of an activity whose purpose is to convert an area of the waters of the United States into a use to which it was not previously subject, where the flow or 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.

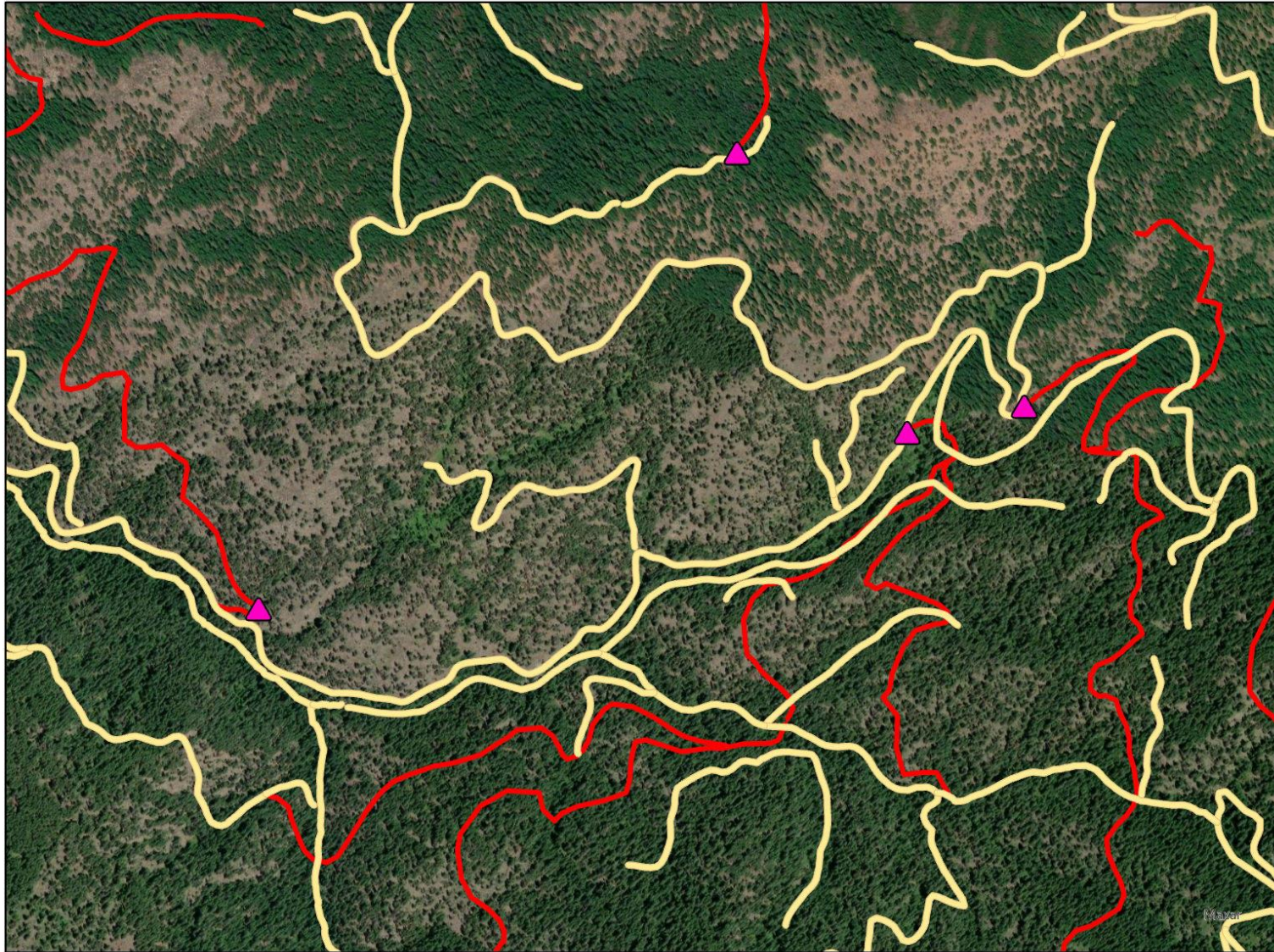
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# 7.5 Appendix E: Fish and Wildlife Proposed Wildlife Buffers and Road Closures

Dick Creek WMU New Road Closure Locations



# Dick Creek WMU New Road Closure Locations





## 7.6 Appendix F: CTCR Holistic Goal and Desired Future Conditions



Confederated Tribes of the Colville Reservation

### **HOLISTIC GOAL**

#### **Quality of Life**

**W**e want to maintain and build upon our unique culture, traditions, language, sovereignty and history; we want a healthy society, environment and economy; we will treat everyone with honor and respect, having the freedom to worship, live, work and play as we choose, accepting each others diversity/uniqueness.

**W**e want to provide plentiful/affordable housing, meaningful/secure employment and educational opportunities. We want communities that are clean, self-sufficient, safe, wholesome and provide opportunities for family based recreation.

#### **Forms of Production**

**W**e will support our quality of life through sustainable wealth from diverse income opportunities, without waste or sacrifice of tradition, culture and values; we will emphasize the importance of involving the membership in developing their communities; we will provide opportunities/infrastructure to increase understanding/awareness of our culture, traditions, language, sovereignty and history throughout our communities, schools and workplaces, continuously promoting honor, respect and diversity.

#### **Future Resource Base**

**W**e are and continue to be a self-sustaining sovereign entity; having flourishing enterprises; having healthy productive landscapes including rangelands, croplands, forests, riparian areas, streams and lakes; tribal decisions will include protection of tradition, culture, and aesthetic values; we will continue to provide improved/enhanced opportunities to communities/schools/workplaces to increase understanding and awareness of our culture, values, tradition, languages, sovereignty and history.

The reservation remains as a rural life-style and the population is in balance with an effective water, mineral, and energy cycle with biodiversity resulting in an abundance of culture, medicinal and edible plants, clean air and water, springs and streams that flow year round, large trees, wildlife, fish and insects.

ENACTED BY COLVILLE BUSINESS COUNCIL RESOLUTION 1996-23 ON JANUARY 18, 1996.

## COLVILLE RESERVATION DESIRED FUTURE CONDITIONS

1. Reservation and boundary surface and ground water are in sufficient quantity and distribution of high quality to meet existing and desired future needs.
2. Landscape hydrologic performance and processes sustain the water, soil and other resources.
3. Wetlands, riparian, and aquatic ecosystems continue to function as natural systems.
4. Culture, traditions and practices remain in the personal, social, economic, spiritual and political aspect of the lives of the Reservation's membership.
5. The long-term productivity and stability of the Reservation's soil resource is maintained.
6. Suitable habitat conditions for desirable native and non-native species (flora and fauna) exist to maintain Reservation biodiversity that includes the diversity of natural genes, species and ecosystems, as well as the evolutionary process that link them.
7. Managed landscapes more closely resemble those created by the activities of historic disturbance agents such as fire (natural and aboriginal ignitions), wind, insects, disease and animals.
8. Viable populations (numbers and distribution of reproductive individuals) of native and desired non-native species of wildlife, and their supporting habitats are maintained, while wildlife is provided in sufficient numbers to meet the cultural, subsistence and recreational needs of Colville Tribal Members.
9. An abundance of anadromous and non-anadromous salmonids and other species the Tribes desire continues in the waters of the Reservation.
10. Tribal Member's values are clearly stated and reflected in the management of their resources.
11. High air quality continues to exist on the Reservation.
12. A mosaic of desirable rangeland plant communities with diverse forbs, grasses and shrubs that optimize ecosystem processes exist across the Reservation.
13. The Reservation is in a clean, green, and healthy condition pleasing to Member's senses where man-made features and structures complement nature and meet the spiritual, cultural, social and economic needs of the Tribal Membership.
14. A Natural Resource Department capable of embracing the resource goals of the Colville Indian Reservation successfully functions by understanding the complexities of interpreting the Tribes Holistic Resources Goal and by formulating operational objectives (strategies) and action steps (tactics).
15. The landscape is producing a viable short-term and long-term economic stability for the Tribal Membership.
16. Non-Reservation sources of revenue continue from other government entities and private enterprises to assist in managing the landscape for producing short-term and long-term economic stability on the Colville Indian Reservation.
17. Diverse year-round recreational opportunities are provided for all age groups and ability levels with an emphasis on Tribal Member utilization as well as resource protection.

## 7.6 Appendix G: 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 three fire regimes:

### *Fire Regime I*

Fires occurred frequently usually within a 0-35 year interval and were usually low severity, low intensity surface fires. Large stand replacing fire could occur under certain weather conditions, but were rare events (i.e. every 200+ years). Typical climax plant communities include ponderosa pine, eastside/dry Douglas fir and very dry white fir.

### *Fire Regime II*

Fire Regime II had a historical fire return interval of 0-35 years and consisted mainly of mixed and high severity fires. This fire regime is generally found below, or as small inclusions within fire regime I, usually related to topographic changes and located mostly in deep canyons on south and west aspects. Fire return intervals and fire size are similar to those found in fire regime I. A few conifer trees may exist in isolated micro-sites sufficient to support limited forest community development. Canopy closure is generally less than 10% where trees exist.

### *Fire Regime III*

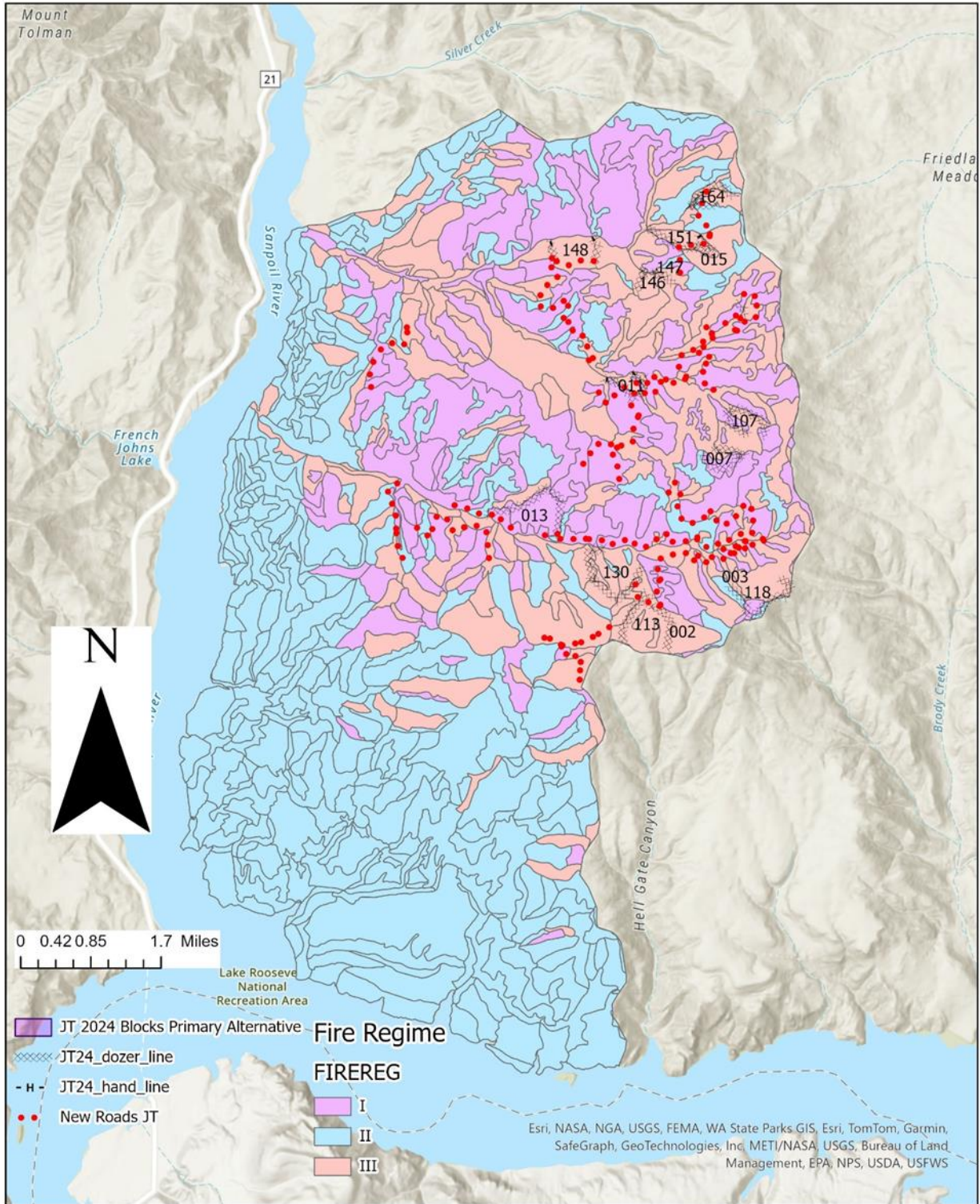
Fires usually occurred on the landscape within a 35-100 year interval. This regime usually results in heterogeneous landscapes. Large high severity fires may occur but are usually rare events. Such high severity fires may reset large areas (10,000-100,000 acres) but subsequent mixed severity fires are important for creating the landscape heterogeneity. Within these landscapes a mix of stand ages and size classes are important characteristics; generally, the landscape is not dominated by one or two age classes.

### Condition Class

Condition class is used to categorize the degree to which site conditions have departed from what would be considered their normal historic range. There are three condition class categories.

- Condition class 1 is defined as a fire regime that is within the normal historical fire return interval. The species composition, stand structure, stand age, canopy closure, and fire frequency has been slightly altered. Thus the risk of losing key ecosystem components from the occurrence of fire remains relatively low (USDA, DOI, 2000. National Fire Plan).
- Condition class 2 is defined as those sites that have been moderately altered from their historical fire regimes by either increased (human caused) or decreased (suppression) fire frequency and there is a moderate risk of losing key ecosystem components (USDA, DOI, 2000. National Fire Plan).
- Condition class 3 is defined as those sites that have been significantly altered from their historical fire regimes because the fire return intervals have been extensively altered, the risk of losing key ecosystem components from fire is high (USDA, DOI, 2000. National Fire Plan).

# John Tom Burn Blocks



# John Tom Burn Blocks

