

Pack II

Road Decommissioning Project

Environmental Assessment



Project Area Jammer Roads

USDA Forest Service
Powell Ranger District
Nez Perce - Clearwater National Forest
March 2014

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Environmental Assessment

Powell Ranger District
Nez Perce - Clearwater National Forest
Northern Region, USDA Forest Service

February 2014

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CHAPTER 1. PURPOSE OF AND NEED FOR ACTION

The Forest Service has prepared this Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. Chapter 1 identifies the purpose and need for action, the scope of the analysis, and the decisions to be made. Chapter 2 describes the action and no action alternative, and alternatives considered but eliminated from detailed analysis. Chapter 3 characterizes the affected environment and discloses the direct, indirect, and cumulative environmental impacts that would result from the alternatives.

Additional documentation, including more technical reports used in this analysis is available upon request at the Clearwater Forest Supervisor's Office in Orofino, Idaho.

A. Introduction

The Powell Ranger District of the Clearwater National Forest proposes to decommission approximately 3.2 miles of unneeded Forest system roads and about 19.7 miles of non-system skid trail/log jammer roads in the Pack Creek watershed of the Brushy Fork of the Lochsa River. A roads analysis has determined that these roads are not needed for future land management activities. Another 3.8 miles of road were determined to be needed in the long term but not in the foreseeable future. These roads would be stored in a hydrologically stable condition. Removal and storage of these roads would improve hydrologic function and reduce adverse impacts to aquatic habitat.

The project is located approximately 1.5 miles southeast of Lolo Pass. The Pack II Road Decommissioning Project is limited in scope to a one square mile area also known as "Mount Fuji". These roads are located in the following area and are presented on the attached map:

Township	Range	Section	Watershed
38N	15E	15	Pack Creek
38N	15E	22	Pack Creek

All the roads proposed for treatment are currently closed yearlong to motorized use and appear to receive little to no non-motorized recreational use.

Decommissioning is proposed for the full length of three system roads. Roads 5954 and 75636 exhibit substantial fillslope sloughing while Road 75633 is heavily vegetated and possesses multiple stream crossings and terminates at a high gradient skid road. Decommissioning is proposed for a portion of another two system roads. The 0.3 mile section of Road 5955 that extends east of 5955-A is heavily vegetated and crosses multiple small streams. The 0.55 mile segment of Road 75628 east of 5953 is also heavily vegetated and exhibits substantial fillslope slumping. None of these roads extend to private lands.

Road storage is proposed for portions of four system roads. The remainder of road 75628 is proposed to be stored in a stable condition for future intermittent use, as are segments of Roads 5955, 75513 and the full length of Road 5955-A.

Roads 5953 and 373A, the remaining Forest Service System Roads within the analysis area, would be retained and maintained as is to facilitate access to Forest Service and private lands; current access restrictions on these roads would remain unchanged.

Proposed Road Decommissioning (Decom.) and Intermittent Storage (IS)

	Segment Length (miles)	Proposed Action	Current Access Status	Section
5954	0.26	Decom	Closed to all year long	15
5954	0.33	Decom	Closed to all year long	22
5955	0.31	Decom	Closed to all year long	22
75628	0.55	Decom	Closed to all year long	22
75633	1.18	Decom	Closed to all year long	22
75636	0.58	Decom	Closed to all year long	22
5955	0.16	IS	Closed to all year long	22
5955-A	0.49	IS	Closed to all year long	22
75513	2.51	IS	Closed to all year long	22
75628	0.66	IS	Closed to all year long	22
Total Decom	3.21			
Total IS	3.82			

Skid trails and old log jammer roads (non-system roads) would also be decommissioned. These roads are known to exist on the ground but are not part of the Forest Service Road System. These roads are grown over with trees and often contain log stream crossings which make them more susceptible to failure when the logs rot and collapse. There are approximately 19.7 miles of non-system road in the project area that would be decommissioned. A small subset of the non-system roads that have no water crossings and adequate hydrologic function would be abandoned. Surveys show a total of approximately 1.3 miles would be abandoned with no further work done.

B. Background

This area was identified in the Crooked Brushy Ecosystem Assessment at the Watershed Scale (USFS, 2004) as having excessive roads with frequent stream crossings, road-intercepted seeps and unstable construction on sidecast waste. Many stream crossings within the analysis area have been identified as log culvert structures which are currently exhibiting a high failure rate. A high degree of fillslope slumping has also been identified along roads within the analysis area.

The roads in the analysis area were built for timber access. Both project areas are adjacent to private timber ground, owned and managed by Western Pacific Timber (WPT). The majority of the roads proposed for treatment are either local or unclassified roads, most of which begin and end within the project area or, if they run on to private land, have alternative access. All the roads proposed for treatment are currently closed year-long to all motorized vehicles. Although

the majority of the roads are currently overgrown with brush that excludes motorized access, surface erosion, fill sloughing, and culvert failures continue to occur. Roads in the analysis area have the potential to continue to deposit sediment into streams through chronic erosion and episodic events (culvert failures, fill sloughing and landslides).

Road decommissioning activities have been in the forefront of watershed restoration projects over the last decade. Monitoring results have shown road decommissioning to be effective at reducing surface erosion and mass failure risk while increasing water infiltration rates and vegetative ground cover (Foltz, 2007). Long-term effects on stream recovery are being monitored on Badger Creek within the Clearwater National Forest. Preliminary data has shown a reduction in instream fine sediment between 2001 and 2005 with a minor increase in 2007 (CNF, 2008). Road decommissioning has also been shown to provide positive effects for wildlife through reductions in habitat fragmentation and human disturbance (Switalski, 2004). Some of the wildlife sightings on these decommissioned roads include black bear, moose, deer, and elk.

This project was originally part of a previous analysis, Pack Cherokee Road Decommissioning that proposed excess roads to be decommissioned in T 38N, R 15E, Section 34 of Pack Creek. Section 22 and the southern part of section 15 were broken out from this analysis due to its proximity to the Lolo Pass recreational ski area. Field review determined that there should be no conflict between backcountry skiers and road decommissioning and thus we are moving forward to analyze part II of Pack Creek Road Decommissioning.

C. Purpose and Need

The primary purpose for decommissioning and storing these roads is to reduce watershed and aquatic impacts from unneeded roads, and decrease road maintenance expenses by stabilizing or reclaiming roads no longer necessary for the Forest's transportation system. Some of these roads have chronic erosion problems. Many of these roads have the potential to fail in the future and deposit sediment into streams. In addition, decommissioned roads would be restored to production of trees and other native vegetation.

Each road was reviewed and a determination made as to whether or not it, or portions of it, was needed now or in the future. Those deemed not needed for management (i.e. timber harvest, recreation, fire suppression, administrative uses) within the foreseeable future are included in this environmental assessment.

There is a need to stabilize roads through decommissioning and storage to better concentrate limited maintenance budgets on fewer roads. Miles of unneeded roads on the Forest do not receive routine inspection of culverts and ditches because of lack of access, personnel, and funding. If roads are not maintained or decommissioned, there is an increased risk for surface erosion, gulying, culvert failure, and landslides. Such conditions result in increased sediment delivery to streams thereby affecting water quality and aquatic habitat. Forest Service budgets for road maintenance have not kept pace with what it costs to maintain all roads. With this trend of declining budgets expected to continue, the Forest's backlog of roads needing maintenance could impact hydrologic function.

The purpose of this project is to:

- Reduce impacts to water quality and aquatic habitats associated with unneeded roads.
- Improve habitat conditions for westslope cutthroat trout and other aquatic organisms
- Reduce road maintenance costs.
- Restore road acres to production of trees and other native vegetation

There is a need for action because:

- There are miles of roads on the Forest that have not been maintained or repaired. Routine inspection of culverts and ditches on these roads is not always possible because of lack of access, personnel, and funding. If roads are not maintained or decommissioned in the near future, there is an increased risk for surface erosion, gulying, and landslides. Such conditions result in increased sediment delivery to streams, thereby affecting water quality and aquatic habitat.
- Forest Service budgets for road maintenance have not kept pace with what it costs to maintain all roads so they function properly. With this trend of declining budgets expected to continue, the Forest's backlog of roads needing maintenance could impact hydrologic function.
- Many of these roads are no longer needed for forest management due to changes in transportation management and logging systems since the days when these roads were built.

D. Proposed Action

The actions proposed to meet the purpose and need are briefly described below.

- Decommission 3.2 miles of system road. These roads are not needed for future management. Roads proposed for decommissioning would be fully obliterated with hillslopes restored to natural contours and culverts removed from all stream and seep crossings. All channels would be restored to natural channel grades. Decommissioned roads would be removed from the Forest transportation system.
- Decommission 19.7 miles of non-system skid trails or jammer roads. These roads have not been used for management in the recent past and are not needed in the future. Approximately 1.3 miles of these would be abandoned with no work done on them. The rest of these roads would be fully obliterated with hillslopes restored to natural contours and culverts removed from all stream and seep crossings. All channels would be restored to natural channel grades.
- Store 3.8 miles of Forest Service system road in a hydrologically stable condition. Roads proposed for storage would have all culverts removed and all stream crossings restored to natural grade. The road prism would be outsloped to approximately 20% sideslope and not to original hillslope contour, except in areas that require full recontour to assure stability. The intent of long-term storage is to stabilize the road-stream crossings and road prism in a maintenance-free condition until access on the stored road is needed

in the future. Roads in long-term storage remain on the Forest transportation system.

E. Desired Condition

The Clearwater Forest Plan (Forest Plan) standards for roads are to manage the transportation system to provide access to and within areas as necessary for administrative purposes while providing for public safety and reduced environmental damage. There is a need to provide access to the forest for timber, fire/fuels management and recreation while minimizing impacts to resources, in particular watershed and aquatic resources.

F. Existing Condition

The Pack II project area (Section 22 and the portion of section 15 south of Road 373A) contains approximately 19.7 miles of non-system/jammer logging road and approximately 7.5 miles of system road. Road 5955-A (0.5 miles) is currently in drivable condition but, as with all system roads within Section 22, is administratively closed year round to motorized vehicles. Road 5953 (0.5 miles), which currently has segments suitable for all-terrain vehicle use, provides access to adjacent land sections owned by Western Pacific Timber (WPT), who shares ownership of the road. The remaining 6.5 miles of system road (Roads 5954, 5955, 75513, 75628, 75633 and 75636) are both administratively closed year round and physically inaccessible to vehicles due to brush and trees, road failures or both. The non-system skid trails or jammer roads are also not accessible to vehicles.

With the exception of Roads 5955-A and 5963, these roads have not been maintained in the last decade. Maintenance is conducted primarily on roads that are opened to motorized traffic. Since maintenance occurs less frequently on closed roads, many become inaccessible due to vegetation growth. All roads proposed for decommissioning are grown over and not drivable. The soils on these roads are compacted and, though grown in with brush, the land is generally not productive for tree growth. The roads proposed for storage are overgrown at this time.

G. Public Involvement

On February 1, 2013 a scoping letter describing the proposed action, location and purpose and need were sent to 160 interested individuals, businesses, organizations and agencies including the Nez Perce Tribe. A legal notice and request for public comment also appeared in the Lewiston Tribune on that date. Three individuals/organizations commented on the Pack II Decommissioning Project. Below are the comments and the Forest Service response to their concerns.

Implementation of BMP's: One commenter identified that the project requires implementation of approved or specialized best management practices (BMPs) to protect the beneficial uses of waters of the State.

All Federal and State laws and regulations applicable to water quality would be applied to the project, including 36 CFR 219.27, the Clean Water Act, and Idaho State Water Quality

Standards, Idaho Forest Practices Act, Idaho Stream Channel Protection Act, and Best Management Practices (BMP's).

Application of PACFISH standards: One commenter expressed an expectation that PACFISH standards would be applied to the project.

PACFISH standards and guidelines will be applied to this project. These are generally related to managing roads, design features and mitigation measures such that they do not retard or prevent attainment of Riparian Management Objectives. Riparian Management Objectives (RMOs) for “forested streams” include the following stream habitat variables: bank stability, pool frequency (pools per mile), water temperature, large woody debris and width/depth ratio. The project has been designed to have a long term benefit to these objectives through road removal in Riparian Habitat Conservation Areas.

Protection of Glade Creek State Park. One commenter observed that the project area is located adjacent to Glade Creek State Park. He noted that the project should improve water quality and improve skiing for backcountry skiers.

Granting of access easement: One commenter requested that an easement be granted on Road 102 from the Powell Ranger Station to the Elk Summit Road.

Road 102, however, is located near Powell Ranger Station and is outside of the geographic extent of the project area. In addition, the current proposal is limited in scope to road storage and decommissioning.

Loss of Access: One commenter expressed opposition to the project as it would remove access to the public for hunting, hiking and OHVing. The roads proposed for decommissioning in this project area are all currently closed to motorized access and for the most part physically impassable. Rebuilding them is beyond the scope of the project. There is no intent to discourage hunting or hiking and these activities could still occur on the decommissioned roads and the surrounding area. The project would not result in any lost recreation opportunities.

H. Environmental Issues

Project issues were identified by the interdisciplinary team and through public scoping and are grouped into one the following categories: 1) issues used to develop design criteria or 2) issues that are outside the scope, decided by law or policy, or not affected by the proposal. Indicators have been identified for each issue and are tracked through the analysis. Indicators are quantitative or qualitative measurements used to describe the affected environment, measure the environmental consequences, and compare the alternatives.

A. Issues Used to Develop Design Criteria

Aquatic Habitat and Access for Aquatic Organisms – Some roads (both system and nonsystem), particularly those within Riparian Habitat Conservation Areas (RHCA) are likely

contributing sediment to streams through roadside ditchlines or inadequate drainage. This has likely contributed to some degradation in the quality of aquatic habitats in the project area. Culvert crossings have also prevented upstream access to aquatic organism habitat limiting access to historic habitats.

Issue Indicator: Miles of road in RHCAs in project area

Issue Indicator: Number of stream crossings on roads in the project area

Road Density – Excessive road densities can compromise the project area’s ability to support wildlife and fish through disturbance, fragmentation, sediment input to streams and encouraging ORV use.

Issue Indicator: Road densities within the project area

Issue Indicator: Road densities within RHCAs

Access for Forest Management Activities – Access needs drove the proposed action. No issue indicator was developed for this issue. Roads proposed for decommissioning were those determined to be redundant to the minimum transportation system for this area. Roads proposed for storage are those determined to be needed in the long term but not in the short term.

Noxious Weed Spread– Ground disturbing activities, including road decommissioning, can spread noxious weeds. No issue indicator was developed for this issue; however design features were used to address it (described in Chapter 2).

B. Issues outside the scope, decided by law or policy, or not affected by the proposal.

Effects to Threatened or Sensitive Fish Species: The following threatened or sensitive aquatic species will not be discussed further in this analysis: fall Chinook salmon, steelhead trout, bull trout, Pacific lamprey, interior redband trout, and western pearlshell mussel. These species are not documented to occur within the project area. For further information see the Biological Assessment and Evaluation in the project record.

Effects to Threatened, Sensitive, or Management Indicator (MIS) wildlife species: The following threatened, sensitive, or MIS species will not be discussed further in this analysis: bald eagle, black-backed woodpecker, flammulated owl, harlequin duck, pygmy nuthatch, fringed myotis, long-eared myotis, long-legged myotis, Townsends big-eared bat, Coeur d’Alene salamander, ring neck snake, and belted king fisher. Habitat for these species either does not occur in proposed treatment areas or would not be affected by decommissioning activities. Many of these species are associated with old growth and the availability of large standing or downed wood for reproduction and foraging. Roads proposed for decommissioning do not occur in old growth habitat or contain large levels of snags or downed wood within them. The project would therefore not affect these species or their habitat. For further information see the Biological Assessment and Evaluation in the project record.

Effects to Sensitive Plant Species: The following sensitive plant species will not be discussed further in this document: Anderegg’s cladonia, crenulate moonwort, lance-leaf moonwort, linear-leaf moonwort, least moonwort, mingan moonwort, mountain moonwort, broadfruit

mariposa, clustered lady's slipper, Constance's bittercress, dasynotus, Pacific dogwood, deer fern, leafless bug-on-a-stick, light hookeria, maidenhair spleenwort, chickweed monkeyflower, bristle-stalked sedge, green-bug-on-a-stick, licorice fern, naked mniium, spacious monkeyflower, sticky goldenweed, sierra wood fern, gold-back fern, salmon-flower desert parsley, sweet coltsfoot, short style triantha and Douglas clover. Habitat for these species either does not occur in proposed treatment areas or would not be affected by decommissioning activities. For further information see the Biological Assessment and Evaluation in the project record.

I. Scope of the Analysis

To determine the scope of this environmental analysis, the interdisciplinary team (IDT) applied the principles of the National Environmental Policy Act (40 CFR 1508.25). The IDT also considered temporal and spatial aspects of the proposed action. The scope of this assessment is limited to the specific management activities described in the proposed action. This proposal is not a general management plan for the area, nor is it a programmatic environmental assessment. If the decision maker selects an action alternative, activities could begin in 2014. The expected duration of this project is 1 to 2 years.

J. Decision to Be Made

District Ranger Craig Trulock is the deciding official for this proposal. The decisions to be made are:

- Whether or not to select an action or mix of actions to improve existing conditions in the Pack II Road Decommissioning Project Area. If implementation of an action alternative is deferred, no other decision is necessary.
- If an action is selected, what design features, management requirements and monitoring are needed for its implementation on the landscape?

CHAPTER 2. ALTERNATIVES

A. Alternative Development Process

This chapter describes and compares the alternatives considered during this analysis. Chapter 2 defines the issues and provides a clear basis for choice among options by the decision maker and the public (40 CFR 1502.14). The important difference between alternatives is based upon the driving issue that is emphasized in each. Alternatives were developed based upon Forest Plan objectives, National and Regional direction and policy, existing conditions and environmental issues.

B. Alternative 1. No Action

This alternative provides a baseline for comparison of environmental consequences of the proposed action to the existing condition and is a management option that could be selected by the Responsible Official. The results of taking no action would be the current condition as it changes over time due to natural forces.

Under the No Action alternative, no road decommissioning would occur. All system and non-system skid trail/jammer roads would remain on the landscape. This would continue to increase the risk of uncontrolled water runoff, surface erosion, fill failures and decreased slope stability. Leaving undersized and failing log culverts in place would increase the potential for future road failures. Road segments fragmented by failures would be difficult to decommission as access would be reduced (i.e. reaching the far end of a road with failures might not be possible). The No Action alternative has a higher risk of road failures and impacts to aquatic resources through sediment input than the Alternative 2. This alternative does not meet the purpose and need for the project.

C. Alternative 2. Proposed Action

Under this alternative, the Forest Service would meet the project purpose and need by implementing the following activities:

- Decommission 3.21 miles of Forest Service System Road. These roads are not needed for future management. Roads proposed for decommissioning would be fully obliterated with hillslopes restored to natural contours, with culverts removed from all stream and seep crossings and restored to natural channel grades. Decommissioned roads would be removed from the Forest transportation system.
- Decommission 19.65 miles of non-system skid trails or jammer roads. These roads have not been used for management in the recent past and are not needed in the future. Approximately 1.27 miles of these roads have adequate hydrologic function and no water crossings; these roads would be abandoned and left in their current state. The remaining 18.38 miles of roads would be fully obliterated with hillslopes restored to natural contours and culverts removed from all stream and seep crossings. All channels would be restored to natural channel grades.

- Store 3.82 miles of Forest Service system road in a hydrologically stable condition. Roads proposed for storage would have all culverts removed and all stream crossings restored to natural grade. The road prism would be outsloped to approximately 20% sideslope and not to original hillslope contour, except in areas that require full recontour to assure stability. The intent of long-term storage is to stabilize the road-stream crossings and road prism in a maintenance-free condition until access on the stored road is needed in the future. Roads in long-term storage remain on the Forest transportation system.

D. Design Features and Mitigation Measures

All roads have been surveyed to determine the specific treatment needs. Treatments range from abandonment to full recontour of the slope. Factors used to determine the amount of treatment include length, slope, and the locations of seeps, streams, and unstable areas. Given the topography of the area, roads to be decommissioned would receive the following treatments unless identified otherwise:

- Where noxious weeds exist, roads would be pre-treated with appropriate chemicals (the effect of weed treatment was analyzed under the Lochsa Weeds EA, 2007).
- Road surfaces would be decompacted and road prisms recontoured or strongly outsloped, fill would be removed from unstable areas.
- For every road, all culverts and ditches would be pulled.
- Road approaches would be recontoured and blocked with native materials (rocks, logs, plants) so that the area is inaccessible to vehicles. The forest has been successful in preventing use of these roads by motorized vehicles after obliteration is complete.
- A narrow (2' wide) trail would be created at the top edge of the decommissioned road to allow for unimpeded foot and wildlife traffic.
- At completion, the decommissioned or stored road would no longer require maintenance and would not be accessible to motorized vehicles.

The following design features would be used to minimize sediment delivery and other impacts to streams during culvert removal and road decommissioning. These measures may include any combination of the following:

- When working in the stream, all fill would be removed from around pipes before pipe removal. Where this is not possible, a non-eroding diversion would be used. A non-eroding diversion would be used in any channels where the culvert has been removed or has failed;
- Diversions would be installed operated and removed such that erosion and sedimentation is minimized.
- Sediment traps and settling basins would be used to ensure that muddy water does not return to the stream.
- Fill material would be placed in stable areas outside of stream channels and flood plains;
- Channel banks would be armored with large rock, woody debris and vegetation when

needed.

- Any soil and vegetative disturbance more than 50 feet upstream or downstream of the culvert site would be shown in the design. Channel and vegetative restoration would be part of the plans.
- Revegetation of treated areas would occur by seeding with a native seed mix, scattering duff excavated from natural ground above road cutslope, and transplanting native forbs and shrubs which are growing on-site either adjacent to or on the road surface.
- Treatments along stream crossings require a complete recontour of all fill material with stream channels restored to natural grade and dimensions. Each stream crossing receives the same revegetation prescription as the roadbed with a special emphasis on transplants of riparian vegetation.
- Mulching of disturbed ground would occur using natural mulch (onsite woody debris, logs, and stumps) as well as imported weed-free straw mulch (used in areas where natural mulch is scarce).
- The contractor would dispose of removed culverts and other structural materials off National Forest ground.
- Equipment used for instream work shall be cleaned of external oil, grease, dirt and mud; and leaks repaired; prior to arriving at the project site. All equipment would be inspected by the COR before unloading at site. Equipment would be inspected daily for leaks or accumulations of grease, and identified problems corrected before entering streams or areas that drain directly to streams or wetlands. This cleaning shall also remove all dirt and plant parts to ensure that noxious weeds and aquatic invasive species are not brought to the site.
- Equipment used for in-stream or riparian work (including chainsaws and other hand power tools) shall be fueled and serviced in an area that would not deliver fuel, oil, etc. to riparian areas and streams.
- The project would follow the provisions to minimize equipment fuel/oil leakage and spills.
- Detection of nests, wildlife sightings and other wildlife behavior will be relayed to the wildlife biologist in a timely manner (the same day as they were detected) for mitigations of project activities if necessary.

Project design features are aimed at minimizing effects to specific resource issues. Many of these are derived from site specific best management practices (BMP) from the Idaho Forest Practices Act and Stream Channel Alteration Handbook.

Best Management Practices (BMPs) would be applied to maintain slope stability, and minimize soil disturbance, erosion and sediment delivery to floodplains and/or wetlands from road decommissioning work.

Any required permits for disturbance of water or wetlands would be obtained prior to initiating work (Army Corps of Engineers 404 permit, Idaho Department of Water Resources Stream Alteration Permit). Any mitigation measures identified in the permitting process would be incorporated into the project plans.

E. Alternatives Considered but Not Analyzed in Detail

Conversion of roads to OHV trails: One commenter requested that:

- 1) Roads 5954 and 5955 be connected and converted to an OHV loop trail.
- 2) Road 75513 be converted to an OHV trail which would connect Road 373-A to Road 5671D (which was mislabeled in the scoping letter as Road 5672).

All roads within the project area are currently closed year round to motorized vehicles. With the exception of Road 5955-A and segments of Road 5953, project area roads are also heavily vegetated and relatively impassable to OHV and foot travel. The suggested alternative would require new construction that is beyond the scope of this analysis.

In addition, Road 5954 has two live water crossings and Road 5955 runs parallel to a small stream, consequently this would be an ecologically inappropriate location for an OHV trail. A segment of new trail would be needed to connect the two roads.

Roads 373A and 5671-D are currently connected via system road 5953. That connection would be unaffected by the proposed action. Retaining 75513 as an ATV trail would result in a redundant transportation system. Proposed Intermittent Storage actions identified for Road 75513 under Alternative 2 would not preclude future considerations of converting it to an OHV route which connects Road 373-A to Road 5671D; however, the scope of this project is limited to road storage and decommissioning.

F. Alternative Comparison

This section presents a comparison of alternatives by the purpose and need identified in Chapter 1. The table below displays how well the alternatives respond to the purpose and need based on indicators established to measure the responsiveness.

Table 2-1: Alternative Comparison to Purpose and Need

Indicator	No Action	Proposed Action
Purpose: Reduce current and future potential impacts to water quality and aquatic habitats associated with unneeded roads		
Miles of road in RHCAs (adjacent to streams)	2.6	0.4
Miles of road on landslide-prone landtypes (moderate)	12.8	3.1
Number of stream crossings	53	4
Purpose: Reduce road maintenance costs		
Miles of system road requiring maintenance	7.5	0.5

Each alternative has been evaluated for its effects on the identified resource issue indicator described in Chapter 1. The proposed action was formulated considering an array of internal issues, including effects to water quality and fisheries. While external scoping did not produce any issues to drive another alternative, it did produce concerns that were incorporated into the

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proposed action design features. The following table provides a comparison of the alternatives in relation to the issues described in Chapter 1.

Table 2-2. Alternative Comparison by Issue

Resource Issue ➤ Issue indicator	No Action	Proposed Action
Effects to Aquatic Resources		
Miles of road in RHCAs	2.6	0.4
Number of stream crossings	53	4
Overall Road Density		
Road density in project area	27.1 mi/mi ²	6.7 mi/mi ²
Road density in RHCAs	28.9 mi/mi ²	4.4 mi/mi ²

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

This chapter provides a summary of the affected environment and the environmental impacts of the alternatives considered in detail. Both system and non-system roads were surveyed for watershed needs in 2010 and 2011.

A. Aquatic Resources

Affected Environment

The aquatic resources analysis area includes unnamed Pack Creek tributaries within Section 22 and the southern boundary of Section 15. This area contains all roads proposed for decommissioning and all associated streams which may be affected. Pack Creek flows adjacent to Section 22 and through Section 15 north of the project area, but does not come within 0.15 miles of project roads. Analysis was conducted using field survey data, Google Earth photos, and mapping in a Geographical Information System (GIS).

Stream habitat data is not available for the project area, however, fisheries data collected adjacent to the analysis area (Clearwater BioStudies, 1995) reflect that those Pack Creek tributaries surveyed near, and upon topography similar to, the project area were high gradient systems (>10%) with numerous channel features (e.g. bedrock steps, waterfalls) presenting barriers to upstream fish passage. While bank stability was classified as good to excellent through most reaches surveyed, cobble embeddedness levels were quite high within the three tributaries (60.6% to 70.7% means). These streams were identified to possess habitat suitable for summer salmonid use, but provided little to no spawning or overwintering habitat.

Fish were observed within one low-gradient reach of a nearby tributary as well as within segments of Pack Creek located above and below the project area. Westslope cutthroat trout (*Oncorhynchus clarkii lewisi*), a Forest Management Indicator Species (MIS) and Region 1 “sensitive” species, were the only fish species identified through snorkel surveys adjacent to the project area. Streams within the project area are likely devoid of fish as they consist of tributary headwaters located above high-gradient (>20%) reaches. No ESA listed fish species are identified to utilize waters within, or adjacent to, the project area.

Roads in RHCAs: There are 54.6 acres of Riparian Habitat Conservation Areas (RHCAs) in the project area and 2.6 miles of road proposed for decommissioning within the RHCAs. Most of the roads cross streams in a perpendicular fashion which greatly minimizes their impact to streams; however, Road 5954, which would be decommissioned, has a stream adjacent segment. Fifty-three stream crossings have been documented on roads within the project area; forty-nine of these would be removed. As noted above, project roads cross headwater tributaries above high gradient reaches which preclude fish access and project area streams are unlikely to be fish bearing.

Environmental Consequences

No Action: Direct and Indirect Effects

Under this alternative, all roads would remain on the landscape. Roads that may be contributing sediment to streams would continue to do so. Roads no longer needed for management could potentially deliver sediment into streams through road surface erosion or failure. The culvert failure risk is moderate to high in the area and the risk of failure increases as crossing structures age. Future failures could set back any sediment recovery that streams have experienced over the last decade.

Proposed Action: Direct and Indirect Effects

The proposed action would decommission 2.2 miles of road within RHCAs and remove no less than 49 stream crossings; all of which failed or failing log culverts. There would be a total of 4 stream crossings left in the area after project implementation. Approximately 11.5 acres of the RHCA would be eventually converted back to forested stands and would provide for future woody material input and shade.

Road decommissioning and storage activities would disturb soil on the modified road prisms. Some of this soil would then have the potential to be transmitted downhill until stabilized by vegetation growth. Growth of vegetation on road prisms would be enhanced by soil decompaction and seeding. Most of the soil disturbed by the proposed activities would be hundreds of feet or more from stream channels and so, if mobilized at all, would be intercepted and stabilized before reaching a stream by vegetation, downed woody material, duff, or topographical features.

Compared to upland activities, soil disturbed at stream or seep crossings or in riparian areas would have a greater potential to enter stream channels during project implementation and over time, but Best Management Practices (BMPs) that would minimize sediment inputs to streams during culvert removal and stream crossing stabilization would be implemented. Even with BMPs, however, culvert removals would contribute to short-term increases in stream sediment and turbidity levels primarily caused by disturbance of existing instream sediments during channel recontouring and rewatering activities. Monitoring on the Forest has shown that peak sediment input occurs immediately upon culvert removal and stream disturbance, followed by a decrease in sediment transport and turbidity within several hours and with increasing distance downstream, typically becoming undetectable after no more than about 600 feet due to small stream size and low flow during the dry season when work would occur. Minor short-term sediment input is expected to occur over a short time frame (1-2 days per site) as the channel adjusts. Subsequent rain and snowmelt events through the following one or two springs are expected to cause short-term increases in sediment and turbidity at the rehabilitated crossing as vegetation reestablishes and stream channels stabilize.

Longer-term stabilization of riparian soils, streambanks and channels is also incorporated into decommissioning and storage methods. BMPs and design features are described in detail in the Design Feature and Mitigation Measures section in Chapter 2. BMPs include dewatering of the site during crossing removal and the placement of sediment catching devices (straw bales, brush dams, settling basins) around the work area and in the stream channel. Slash, vegetation transplants and native seed will be placed on raw re-contoured slopes to minimize erosion on disturbed soils at crossing sites.

As previously noted, project area streams are somewhat unlikely to be fish bearing. It is unlikely that there would be turbidity effects to westslope cutthroat trout within downstream reaches of Pack Creek as road decommissioning activities would occur much more than 600 feet from Pack Creek. As noted above, project implementation would proceed with BMPs and other efforts to minimize sediment transmission/suspension so that water quality impacts would be temporary or minor. There would be no effect to ESA listed fish species since none are identified to occur in project area streams or adjacent reaches of Pack Creek.

Long-term sedimentation risks that chronic road prism erosion and mass failures pose to project streams and Pack Creek would be reduced due to the activities proposed in this project. Approximately 11.5 acres of RHCA would be converted back to forested stands and would provide for future woody material input and shade. Through decommissioning, there would be an 85% reduction of roads in the RHCA's. In the long-term, the proposed project should substantially improve watershed and stream channel conditions in the project area.

Cumulative Effects

The cumulative effects analysis area is the Pack Creek drainage. The area was selected as it contains all roads proposed for decommissioning and all of the streams that may be affected by them. The timeframe considered is from 2013 to 2017. It starts the year before road decommissioning activities would begin and would last two years past when they could be completed. The additional two years are added as that is the timeframe for vegetation on decommissioned roads to become well established and minimize surface erosion from disturbed soils.

The activities considered for cumulative effects include other watershed restoration work in these drainages and potential activity on private land. Only those activities that have the potential to affect instream sediment were considered.

Activities on Private Land: There are currently no known activities planned on the private lands within the cumulative effects area. The private land sections within the Pack Creek drainage were actively managed for timber production by Plum Creek Timber Company until 2005, when the land was sold to Western Pacific Timber (WPT). Since WPT has owned the land, there has been little active management. WPT has proposed trading out of these lands to the Forest Service. This proposal is currently undergoing analysis. Future management of these lands depends on the outcome of the proposal. In the long term, the lands would probably be managed for timber production in either case. It is unlikely that any harvest would occur within the cumulative effects timeframe.

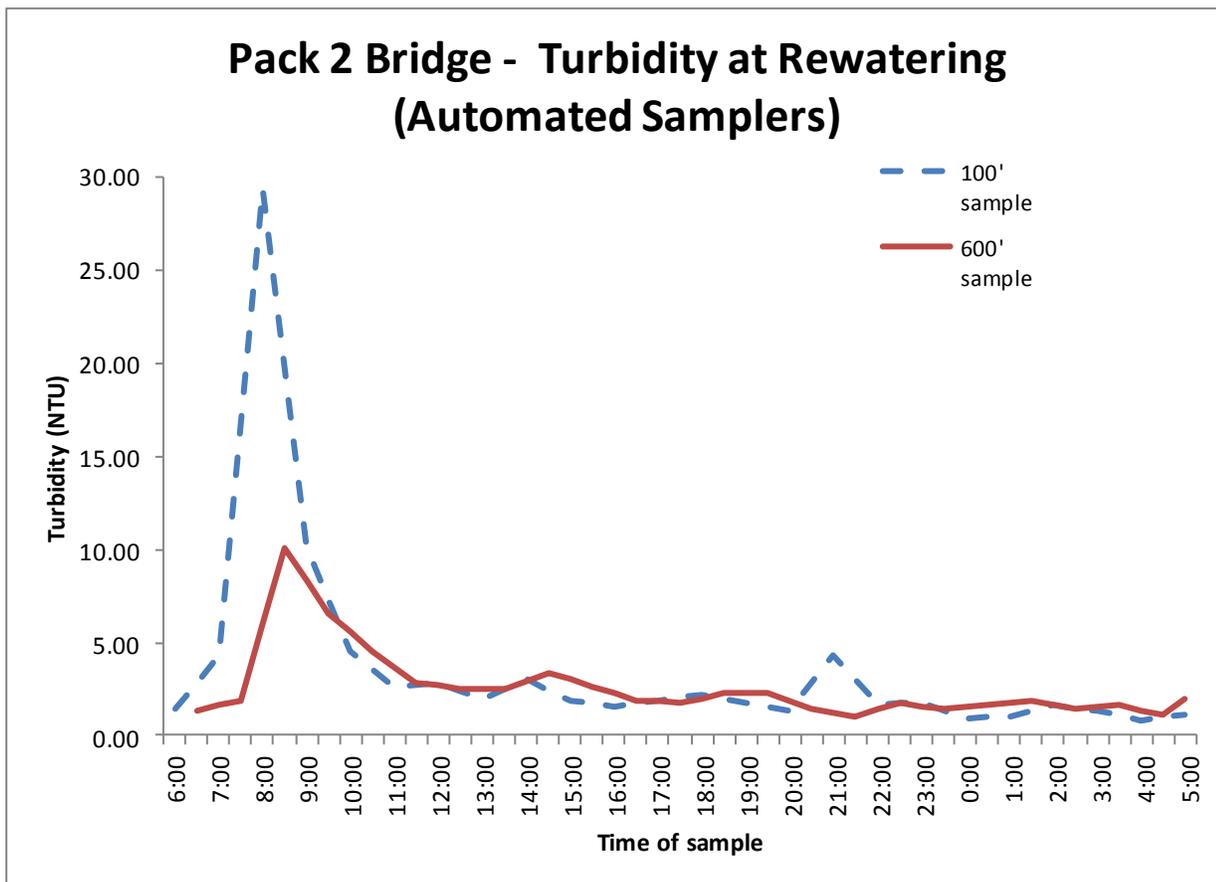
Road Decommissioning: In 2013, the Forest Service and the Nez Perce Tribe decommissioned 2 miles of system and 10 miles of nonsystem road and stored 2 miles of system road in the Pack Creek watershed south and downstream of the current project approximately 4.5 miles southeast of Lolo Pass in Township 38 N, Rang 15 E, Section 34. Although there may be short term impacts to water quality within the project area and within 600' downstream of the stream crossings, these effects would be limited by applying Best Management Practices (see above).

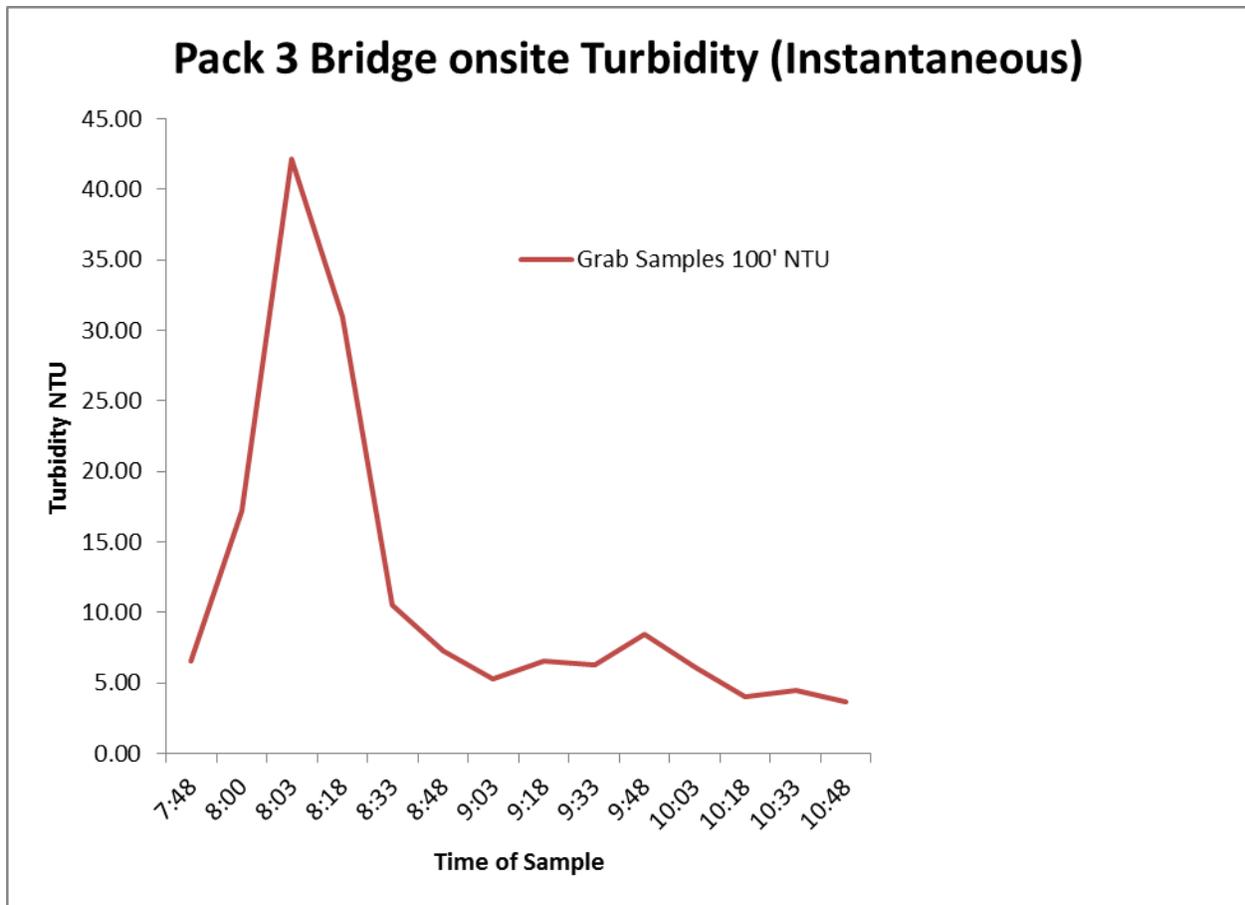
The Powell District and NPT have not identified plans for future road decommissioning projects in the Pack Creek drainage at this time.

Culvert Replacements: In the summer of 2013, three culverts on Pack Creek were replaced with bridges. The old structures on Pack Creek on roads 5671, 373A, and 5956 were all partial barriers to aquatic species migration and were undersized with other maintenance issues.

Turbidity measurements were taken during rewatering of the bridges on roads 373A and 5956. Idaho turbidity standards require that turbidity, below any applicable mixing zone set by the Idaho Department of Environmental Quality (IDEQ), shall not exceed background turbidity by more than fifty (50) NTU instantaneously or more than twenty-five (25) NTU for more than ten (10) consecutive days. In each case, baseline turbidity was taken above the construction site and was less than 1 NTU. The results of the turbidity monitoring are shown in the graphs below.

Although on these projects turbidity never exceeded the IDEQ standards, past projects have shown that we sometimes do exceed. However, the turbidity plume is generally limited in time (usually less than one hour) and space (usually is less than 50 NTUs beyond 600 feet below the project site). These results indicate that there should be no long term or deleterious increases in sediment due to restoration activities.





B. Road Density

Affected Environment

The project area is just over one square mile (1.003 mi²) in size and, containing 7.5 miles of system road and 19.7 miles of nonsystem road, has a road density is 27.1 mi/mi². Roads occur mostly in midslope locations on moderate to steep sideslopes. The majority have a low to moderate risk for failure. Non-system roads generally occur across mid and upper slopes. All roads are currently closed year long to all motorized use.

High road densities can fragment forest stands and decrease the amount and quality of habitat for a variety of wildlife species, especially big game (elk, deer and moose). The negative effect of open roads on these species is highest particularly during the fall hunting and winter season. Project area roads are closed to motorized use which minimizes the effects to big game. High road densities can also impact streams through road surface erosion and failures. This, in turn, can increase sediment in streams and reduce the quality of spawning and rearing habitat for fish.

Watersheds are considered to have a good aquatic condition rating if road densities are less than 1 mi/mi², are moderate at 1 to 3 mi/mi², and have a low condition rating at greater than 3 mi/mi² (NOAA, 1998). Overall road density in the project area is 27.1 mi/mi² and road density within the RHCA is 28.9 mi/mi², giving the project area a low condition rating.

Environmental Consequences

No Action: Direct and Indirect Effects

Under the No Action alternative, road densities would not change. There would continue to be minimal effects to big game during the hunting and winter seasons due to few roads being open during that time. The watershed condition rating of “low” would remain unchanged.

Proposed Action: Direct and Indirect Effects

This alternative would reduce the overall road density by 75% to 6.7 mi/mi². Road density within the RHCAs would be reduced 85% to 4.4 mi/mi². Benefits to wildlife, primarily big game, would be slightly better than the No Action Alternative. Decommissioned roads and roads placed into intermittent storage may be more difficult to walk on following project activities; however, there is no intent to discourage nonmotorized recreation. These conditions may make it harder for hunters to travel on which may affect the success of their hunt. This area is also frequented by backcountry skiers. This activity should not be affected by the road decommissioning. The greatest benefits due to the reduction in road density would be seen in the reduction of risks associated with road failure effects on streams.

Cumulative Effects

The cumulative effects area is the project area. There are no other past, current or future foreseeable projects within the area that would affect road density. Cumulative effects can only arise from the effects of the proposed action in combination with other actions. Since there are no other actions, there are no cumulative effects.

Sensitive Plants

Information for sensitive plant species and their habitat was gained through: vegetation inventory databases (FSVeg/VMAP/FIA) and other landscape attributes, Idaho Conservation Data Center observed plant locations, and professional knowledge of the project area as well as species habitats and occurrences.

Affected Environment

There are potentially three sensitive plant species that occur within the project area and could be affected by road decommissioning activities. They include: Idaho barren strawberry, evergreen kittentail, and whitebark pine. The first two often occur on open soil surfaces such as cut and fill slopes in old road corridors. Though the elevations of the project are a bit lower than typical for whitebark pine, it is possible some scattered individuals may occur along the roads in the highest parts of the project area.

Environmental Consequences

No Action: Direct and Indirect Effects

There would be no effects to sensitive plant species with this alternative. No plants or their habitat would be disturbed.

Proposed Action: Direct and Indirect Effects

Road decommissioning could have local, negative effects on some plants through the loss of individuals or their habitat along roads or in riparian areas. However, habitat for these species is well represented outside of proposed activity areas.

Evergreen kittentail and Idaho barren strawberry have been observed to do well under disturbance such as that caused by decommissioning activities. The effects of the project may negatively impact individuals but may also be beneficial by creating freshly disturbed habitat. Potential occurrences of whitebark pine in the road corridors would likely be mechanically removed by the decommissioning activity, though with the abundance of this species in the nearby, higher elevations, there would be no viability concerns presented by this project. Effects to these species are expected to be minimal and not threaten populations or lead to listings under the Endangered Species Act.

Cumulative Effects

The geographic boundary for assessing cumulative effects of each alternative for sensitive plants is the project area. The time frame for the cumulative effects assessment is 2013 to 2014. This is the time it would take to complete the project.

Present and foreseeable future management actions in the project analysis area which could affect this sensitive plant species include noxious weed control. Noxious weed control practices may occur during the cumulative effects timeframe. Application of chemical herbicides is prohibited where known or suspected populations of sensitive plants occur. No cumulative effects to sensitive plant species are expected as a result of these design features.

Planned actions comply with Forest Service policies and management actions to maintain available, well distributed sensitive plant habitat and populations within the project analysis area and the cumulative effects analysis area.

Wildlife

This section addresses wildlife which have suitable habitat within the project area. Federally listed or species considered include the threatened Canada lynx and proposed North American Wolverine. Potential sensitive wildlife species in the project area include the fisher, gray wolf, and western toad. Management Indicator Species that may be present are: northern goshawk, elk, moose, white tailed deer, pileated woodpecker and American marten. There would be no effect to any other ESA or Sensitive species as noted in Chapter 1. Those species not discussed in this BE do not have habitat in the project area, or if they do have habitat in such- it will not be affected by the project activities.

The analysis area for all sensitive species is the project area plus the adjacent private and federal land sections because the direct, indirect and cumulative effects of the project could only occur in this area. Adjacent private lands have experienced timber harvest and wildfires, however, the scale and timing of these disturbances are not available to the Forest Service. The project area is of small size (less than 1,280 acres) and most analysis of wildlife may cover larger areas than this in order to present habitat use by species. Support for the analysis of species includes spatial models and databases (GIS), scientific literature, state and forest records.

Threatened and Endangered and Proposed Species

North American Wolverine

Affected Environment

The U.S. Department of Interior, Fish and Wildlife Service published a proposed rule for the North American wolverine on Monday, February 4, 2013 in the Federal Register (Vo. 78, No.23). The wolverine in the western United States was accorded candidate status on December 14, 2010 (FR 75:78030 – 78061).

Habitat models show that this project's location lies within a persistent snow area (an attribute of wolverine habitat). Idaho state records show an incidental sighting of a wolverine track in 1962, about a mile north of the project area.

The threat to wolverine is loss of habitats with persistent snow cover as a result of climate change and increasing temperatures. The proposed rule found that dispersed recreational activities, infrastructure development, transportation corridors, and land management activities do not pose a threat to wolverines. Road decommissioning activities associated with this project include: rock and soil movement to contour road prism to natural slope, relocation of on-site woody debris to renovated areas, removal of culverts and modification of dips and ditches to follow natural water flows and reduce erosion. In reviewing the proposed rule and the activities proposed in the Pack II Road Decommissioning Project, the proposed federal action associated with the project is *NOT likely to jeopardize the continued existence of the wolverine*. Thus, the land management activities in this project are not considered a threat to wolverine.

Canada Lynx

Background

The contiguous United State distinct population segment of the Canada lynx is listed as threatened (USFWS 2000). In 2006, the Regional Forester for the Northern Region signed an agreement with the USFWS to identify the Clearwater NF as one of many forests that contains occupied habitat for the Canada Lynx. The 2007 decision documented in the Northern Rockies Lynx Management Direction FEIS, commonly referred to as the Northern Rockies Lynx Amendment (NRLA), identified the Clearwater NF as secondary habitat. Critical habitat has been proposed for the Canada lynx (USFWS 2008, 2009, 2013); however, none of the proposed critical habitat is on the Clearwater National Forest. Management of lynx in the Northern Rocky Mountains, including the Clearwater National Forest, is governed by the Record of Decision for the Northern Rockies Lynx Management Direction (USFS 2007a), which contains a set of objectives, goals, standards, and guidelines for managing lynx and their habitats in the Northern Rockies. There are no specific objectives or guidelines that are applicable to the proposed road decommissioning project.

Lynx typically live in mesic coniferous forests that have cold, snowy winters and provide a prey base of snowshoe hare and other animals. Historical and current lynx records in the Northern

Rocky Mountains occur primarily in the Douglas-fir forest, spruce-fir forest, and fir-hemlock forest. A gradient in the elevation distribution of lynx habitat is apparent across the area. In the higher latitudes of northern Idaho and northwestern Montana, lynx habitat generally occurs above 4,000 feet (Ruediger et al. 2000). Based on these habitat attributes, the Clearwater National Forest mapped lynx habitats and established Lynx Analysis Units (LAUs) for the entire forest. An LAU is an area of at least the size used by an individual lynx, from about 25-50 miles (LCAS 2000). Both lynx foraging and denning habitat occurs in the 2 sections where the road decommissioning would be occurring (See Biological Assessment in project file).

Affected Environment

The project area lies within LAU 28. The LAU encompasses 47,738 acres of federal and private lands. Private land (20,032 acres) belongs to a timber interest, Western Pacific Timber. Timber harvest has occurred in all private land sections over the past 50-60 years. No specific information as to the type and time of treatments has been shared with the Forest Service. These private lands are currently under consideration for a land exchange with the agency. When the exchange is finalized, the agency would inventory the vegetation and other resources of these acquired lands. Therefore, at this time it is unknown as to how much private land is in various stages of lynx habitats (den, forage, unsuitable, and non-lynx habitats).

Federal lands within the LAU comprise 27,442 acres. The habitat available is denning (7,123 ac.), foraging (17,705ac) and unsuitable (1,627ac). Unsuitable habitat are areas that are recovering from a disturbance (fire or regeneration harvest) and are currently not at a vegetation stage of providing forage for the snowshoe hare. The snowshoe hare is the primary prey species the Canada lynx consumes. Finally, the remaining 980 acres are unavailable/non-lynx habitat. This latter habitat are areas that offer no suitable habitat for the lynx (areas above timberline, cliffs, rock outcrops, lakes, wetlands, meadows, or tree habitats that do not support snowshoe hare populations.) Several past activities in the analysis area contributed to current habitat conditions. Disturbances that may temporarily diminish habitat for snowshoe hare and lynx include fire events and timber harvests.

To determine when a disturbed area would be available as winter forage for the snowshoe hare a computer model was used. For this area, the tree recovery period was calculated by using the Forest Vegetation Simulator (Dixon 2002). Information input into this simulator begins with common stand exam data collection, input to the field sample vegetation database (Acronym is FSVEG), and finally a transfer of the latter data into the simulator. A recently harvested stand one mile northwest of Lolo Pass was input (tree stocking and natural species on site) through the simulator. By 2038 (25 years from now) approximately 490 trees/acre averaging around 18.3' in height would be available. That is roughly an average spacing of 8' between trees. Average snow depth in the project area ranges between 13' to 15' (district records). In summary, the analysis from the modelled run predicts a number and height of trees that should provide forage above average snow years for the snowshoe hare. Therefore, unsuitable habitat is expected to become forage habitat in about 25 years after a harvest or wildfire.

The NRLMD ROD (2007a) provides objectives, standards and guidelines for agency activities in LAUs. Currently, LAU 28 is meeting all standards. Past disturbance from fire and timber harvest is at a 29% unsuitable habitat for the lynx ; which is below the 30% threshold set by the ROD.

Timber harvest in the past 10 years is 41 acres. This is less than 1% of the LAU, and well below the 15% standard set by the ROD. All other standards and guidelines of the ROD are met.

Environmental Consequences

Alternative 1 Direct and Indirect Effects

Alternative 1 would have no direct or indirect effects on the Canada lynx or winter snowshoe hare habitat because no treatments would be conducted. Past timber harvests or fires within 25 years are creating early seral habitats; which provide some foraging opportunities for the snowshoe hare, and prey for the lynx. Untreated stands continue to mature and may shade out understory vegetation and self-prune lower tree branches: reducing the amount of foraging habitat, but potentially increasing denning habitat for the lynx.

Roads constructed for timber harvest may have introduced human disturbance, including over-the-snow vehicle use into remote, backcountry habitats. More recent road obliteration and storage have somewhat reduced human disturbance, although many of the closed roads have had little use. Road prisms would re-vegetate and produce shrubs or trees that may offer forage for snowshoe hares. Natural wildfires would be the only disturbance variable that could change conditions in the project area.

Alternative 2 Direct and Indirect Effects

Road decommissioning activities would be occurring in lynx habitat. The proposed action would be focused on a 1,200 acre area, during July through October 2014. Activities would be during daylight hours. Equipment in the project area would be 1-2 excavators, and the same number of support vehicles. Each excavator would be working on different roads.

Mechanical noise would be the potential disturbance factor for lynx. The noise would be located at different areas throughout the project duration with short-term effects. The effect would be pulse-like: occurring for a brief time then diminishing.

Natural materials (such as soil, rock, woody debris) would be moved and rearranged to contour the road prisms to the natural slope. Seeding would occur after ground disturbing activities. Habitat modification would cause some short term disturbance, but is likely to create long-term positive impacts to lynx habitat from re-vegetated corridors and reduction in erosion. Upon project completion road densities would decrease from 27.1 mi/mi² to 6.7 mi/mi².

Project in scope and duration relative to Canada lynx and their habitats and are not expected to have any measurable effect on individual lynx or the lynx population. The habitat is identified as secondary habitat, which would support a transient lynx. Activities would not occur during the critical period of winter, where the lynx is most pressured for prey. Proposed activities would cause short-term disturbance from decommissioning-related activities, but long-term increase in security.

Cumulative Effects

Past federal activities include the recent completion of Pack Cherokee Road Decommissioning Project in 2013 and a timber sale of 41 acres in the past 10 years. The previous road decommissioning project reduced road densities in 2 sections to the south and west. The

proposed action would not affect the availability of denning or foraging habitats and would improve security.

No measurable effects to individual lynx or the population trend of the species are expected from the cumulative effects of this alternative, based on the widespread availability of suitable habitats in the analysis area and across the Forest and the minimal incremental effects of this action. The determination for the project is *May Affect, but is Not Likely to Adversely Affect* Canada Lynx. And the project *May Affect, but is Not Likely to Adversely Modify* habitat for the Canada Lynx.

The proposed action would comply with applicable Forest Plan standards, ESA requirements, and the NRM Lynx Management Direction. Specifically, it would not allow the expansion of snow-compacting activities and would maintain the effectiveness and connectivity of lynx habitats.

2. Sensitive Species

Sensitive species considered include those identified on the Northern Region Sensitive Species List of February, 2011 (<http://fsweb.r1.fs.fed.us/wildlife/wwfrp/TESnew.htm>). Only fisher, gray wolf and western toad are considered as the project may affect the species or their habitat. Primary references for information were the Clearwater National Forest web site (http://www.fs.fed.us/r1/clearwater/terra_org/terra.htm), NatureServe (www.natureserve.org) and the Idaho Conservation Center (ICDC) (Idaho Department of Fish and Game 2008), as applicable. No specific Forest plan standards, guidelines or other regulations apply to most sensitive species.

Fisher

Affected Environment

Fishers inhabit diverse, moist, mature forests at low to moderate elevations, with high canopy cover, often along riparian areas, and abundant large diameter woody debris (Jones 1991). There is both suitable winter and summer fisher habitat in the project area.

Environmental Consequences

No Action: Direct and Indirect Effects

There would be no direct or indirect effects to fisher since no disturbance of habitat would occur.

Proposed Action: Decommissioning activities (noise, movements by man or machine) would cause possible disturbance, and possibly short term avoidance effects. There would be short term loss of vegetative cover along roads. In the long term, vegetation recovery would increase hiding cover for the fisher.

Cumulative Effects

No Action Alternative: There would no direct or indirect effects to fisher from this alternative; therefore, no cumulative effects.

Proposed Action: The direct and indirect effects are expected to be minimal and there are no other activities within the project area that would affect these species or their habitat. The recovery time for vegetation is the cumulative effect to fisher from the proposed action. The removal of road prisms would further reduce many recreational and wood cutting opportunities. The recovery of vegetation would bring more security and potential forage for the fisher. Riparian buffers and surrounding habitat adjacent to the project contains habitat for fisher to avoid project disturbances or to move around such.

This project would have *No Impact* on the fisher or its habitat. The project area is small (about 1,200 acres), project duration is short (about 4 months), project activities would not reduce habitat, but improve it in the long term. Abundant habitat exists in and around project activities for fisher to seek shelter and continue to forage.

Gray Wolf

Affected Environment

Gentle terrain on major ridges and available prey in the project area indicate this area may be suitable for wolf habitat. Wolves rely on elk, moose and white-tailed deer as prey.

Environmental Consequences

No Action: Direct and Indirect Effects

There would be no direct or indirect effects to wolf since no disturbance to individuals or their habitat would occur.

Proposed Action: Decommissioning activities would create possible short term disturbance effects. Noise from the project activities may disturb or attract wolves. The short term loss of vegetative cover along roads within the project area would not displace the predator. If big game continue to use the area (probably during hours of darkness), wolves may be attracted to the space to pursue their prey base. No dens are known to be within 3 miles of the area. Activities would not occur during denning season. There would be long term beneficial effects to wolf from roads converted to vegetation and re-contoured as this may increase security from human detection and improve forage for prey species.

Cumulative Effects

No Action Alternative: There would no direct or indirect effects to the wolf from this alternative; therefore there would be no cumulative effects.

Proposed Action:

There would be no cumulative effects to wolf from the proposed action. The direct and indirect effects are expected to be minimal and there are no other activities within the project area that would affect these species or their habitat. The project would have *No Impact* to the wolf or its habitat.

Western Toad

Affected Environment

Forest GIS models depict potential habitat, but no western toads have been observed in or near the project area. Anecdotal information indicates they occur within Idaho County. Toads utilize wet and moist habitats, and uplands found on forested slopes (Idaho State Univ. 2000). They prefer slow water habitats such as ponds, lakes, reservoirs, and slow moving streams. Eggs are generally laid in ponds and slow moving streams. Breeding habitat is not likely to be limited near proposed road decommissioning. Streams crossed by these roads are generally fast moving with little still or slow moving water. Water may seasonally pond on roads or in ruts or ditches which may provide breeding habitat for the species.

Environmental Consequences

No Action: Direct and Indirect Effects

There would be no direct or indirect effects to western toad since no disturbance of habitat would occur.

Proposed Action: Direct and Indirect Effects

Road decommissioning may negatively affect western toads. Where standing water exists, individuals could be inadvertently killed during project activities. The risk to the toad and its habitat is considered low based on the lack of observations within the area and the number of stream crossings. Additionally, larvae should be in the young adult stage during August and have exited water to forage in other areas. Ample habitat would be available outside of targeted roads during activities.

Cumulative Effects

No Action Alternative: There would no direct or indirect effects on western toad from this alternative; therefore there would be no cumulative effects.

Proposed Action: Direct and indirect effects may impact the species during the period of the project activities. Daily progress of road obliteration would be a single timely occasion at each point. In other words, there are no return visits to an area that has been re-contoured, except by non-mechanical means to reseed the bare ground. Therefore, future toad habitat is accomplished every day to the end of the project. Cumulative effects would be the time it takes for vegetation to grow back and for toads to discover the increased cover of logs, rocks and other debris that replaces the open road prisms. No other projects are expected to occur concurrently or in the foreseeable future

The project *May Impact Individuals or their habitat*, but will not trend towards federal listing or cause a loss of viability to the population or species of the Western Toad.

3. Management Indicator Species (MIS)

The current Forest Plan identifies MIS as representatives of other species that have similar biological requirements (CNF 1987). Examples of such species in the project area include elk, moose, white-tailed deer, American marten, northern goshawk and pileated woodpecker.

Elk, moose, and white tailed deer (Big Game)

Habitat for the Big Game Management Indicator Species (MIS) may occur within the project area and may be affected by project activities. In this project area, management activities that affect elk have similar effects to moose and white-tailed deer, and will not be discussed separately from elk.

Affected Environment

The project area contains both winter and summer habitat for elk. Current elk use is considered low due to overall low populations and the lack of abundant quality forage in the project area. The highest levels of use appear to be associated with extremely steep, remote terrain adjoining shrub dominated habitats. Project area roads are also closed to motorized use during the winter and fall which provides for good elk security during those time frames.

Environmental Consequences

No Action: Direct and Indirect Effects

There would be no direct or indirect effects to elk since no disturbance of habitat would occur.

Proposed Action: Direct and Indirect Effects

Potential direct effects to elk would be the temporary disturbance or avoidance of the project area during decommissioning activities. Most likely, these affects would occur when machinery and human activities are operating during daylight hours. The effects are expected to be minimal and in one or two specific areas across the space of the project. Activities could indirectly affect elk through short term (20 year) increases in forage. Once vegetated with grasses and shrubs, elk could feed along the obliterated roads until trees cover the area. Roughly 80 acres of potential forage would be provided on decommissioned roads.

The proposed action would meet Forest Plan standards and guidelines for elk. There would be no change in open road densities which can affect elk security.

Cumulative Effects

No Action Alternative: There would be no direct or indirect effects to elk from this alternative; therefore, there are no cumulative effects. Current population trends would be unaffected.

Proposed Action: The activities considered for cumulative effects include activities on adjacent private and federal land sections. As discussed in the effects section, big game may be disturbed by project activities, and may exhibit avoidance of the area during daytime hours. There are several watershed restoration projects planned in the vicinity on federal lands (see aquatics section). None of these are expected to have more than a minimal temporary effect to elk. No activities are planned during stressful periods of winter or periods of calving or birth. There are currently no known activities planned on the private lands within the cumulative effects area. Current discussions on the exchange of private timber lands to the Forest Service area in progress, but this would not be an effect on big game. It is assumed that most of these holdings have been logged. Any impacts from this project would be short-term and would not

jeopardize the population trend of big game in the area. The proposed action does not pose a threat to big game or affect their suitable habitat.

Northern Goshawk

Affected Environment

Goshawks use large landscapes, integrating a diversity of vegetation types over several spatial scales to meet their life-cycle needs (Squires and Kennedy 2006). Literature reviews show a high preference of goshawk selection for late successional forest structures (e.g., high canopy closure, large trees for forest type, canopy layering, abundant coarse woody debris) when using areas within their studied home ranges (Greenwald et al. 2005). Forest GIS models depict potential nesting and forage habitat in both sections where the project will occur. No records of the raptor's presence in the area have been noted.

Environmental Consequences

No Action: Direct and Indirect Effects

There would be no direct or indirect effects to the northern goshawk since no disturbance of habitat would occur.

Proposed Action: Direct and Indirect Effects

The timing of the project initiation would be in mid-July, with goshawks in the nest and maturing to or in the juvenile stage. By August, the fledglings should be mobile enough to leave the nest for short flights in the post-fledgling area. Due to past timber harvest in the project area, the diameters of trees near roads are probably not at the preferred tree diameter for nesting trees. No large live trees would be used for the decommissioning activities.

Project activities may disturb goshawks located near a road prism that will be decommissioned. If a nest or aggressive behavior from a goshawk is discovered, the inspector would notify the biologist. Mitigations may include suspending activities in a sensitive area till later in the season, and/or finding other materials for road work other than that which is nearby a nest.

Cumulative Effects

No Action Alternative: There would be no direct or indirect effects to northern goshawk from this alternative; therefore, there are no cumulative effects. Current population trends would be unaffected.

Proposed Action: Besides the effects mentioned, no cumulative effects are foreseen. The project area is small, and the actions would affect very little of the adjacent landscape that is beyond the road right-of-ways. The proposed action does not pose a threat to goshawk or affect suitable habitat.

Pileated Woodpecker

Affected Environment

The pileated woodpecker will nest in large diameter trees, usually found in mature stands or old growth with high canopy closure, decadence, and multi-layered structure. The bird will forage on

stumps, and excavates holes in small to large trees while searching or feeding on ant or wood boring beetle populations (USDA 1991).

Both forage and nesting habitat is available in portions of the two sections of the project area. The habitat is sporadic and unconnected in the area. None of it is found within the road right-of-ways for either system or non-system forest roads.

Threats considered to be most important to this species include (The Nature Conservancy 1999): conversion of forest habitats to non-forested habitats; even-age forestry management; monoculture forestry; and forest fragmentation. In particular, the removal of logging residue and downed wood takes away the nutrients and foraging substrates for Pileated Woodpeckers and also reduces the overall water content of the forest floor, making it less suitable for the arthropod fauna that this species is dependent on.

Environmental Consequences

No Action: Direct and Indirect Effects

There would be no direct or indirect effects to the woodpecker since no disturbance of habitat would occur.

Proposed Action: Direct and Indirect Effects

There would be minor to immeasurable direct or indirect effects to the pileated woodpecker. Noise and movement of mechanical equipment or humans on sight may disturb the woodpecker. Dead wood adjacent to the affected roads may be utilized and placed in the road prisms. No effects from the project activities are expected to impact breeding activities, nests, foraging or feeding of young by the pileated woodpecker.

Cumulative Effects

No Action Alternative: There are no direct or indirect effects, and there would be no cumulative effects from this alternative.

Proposed Action: There would be minor to immeasurable direct or indirect effects to the pileated woodpecker from this alternative, and there are no cumulative effects. Large diameter trees would remain unaffected by project activities and available as woodpecker habitat. Current population trends would be unaffected. The proposed action does not pose a threat to pileated woodpecker or affect suitable habitat.

American Marten

Affected Environment

The pine marten was identified as a Clearwater National Forest management indicator species for mid-high elevation mature forests. Martens are generalists for prey, and will forage in or near riparian areas, and at lower altitudes if that is where abundant prey is concentrated. It does not occupy recently burned or cut-over areas (Fisher et al. 2000).

Environmental Consequences

No Action: Direct and Indirect Effects

There would be no direct or indirect effects to marten since no disturbance of habitat would occur.

Proposed Action: Direct and Indirect Effects

Noise and project activities may disturb martens in the vicinity. Timing of the activities would not affect breeding season or rearing of kits to adult stage. Use of nearby dead or downed wood for road decommissioning may affect foraging habitat for the marten within the road right-of-way. However, this is a very narrow area, and dead wood may be at a minimal from a combination of past timber harvest and prescribed burning in treated stands.

Cumulative Effects

No Action Alternative: There would be no direct or indirect effects to American marten from this alternative; therefore, there are no cumulative effects. Current population trends would be unaffected.

Proposed Action: The project activities may disturb martens during foraging. Effects to habitat would be short-term, as vegetation would replace bare areas over time. In the long-term, vegetative cover over once barren road prisms would increase habitat for small mammals and other prey the marten pursues. The proposed action does not pose a threat to the American marten or affect suitable habitat.

4. Neotropical Migrants

Affected Environment

Under the National Forest Management Act (NFMA), the Forest Service is directed to “provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives.” (P.L. 94-588, Sec 6 (g) (3) (B)). The January 2000 USDA Forest Service (FS) Landbird Conservation Strategic Plan, followed by the US Shorebird Conservation Plan and Executive Order 13186 in 2001, and the January 2004 PIF North American Landbird Conservation Plan all reference goals and objectives for integrating bird conservation into forest management and planning.

In late 2008, a *Memorandum of Understanding between the USDA Forest Service and the US Fish and Wildlife Service to Promote the Conservation of Migratory Birds* was signed. The intent of the MOU is to strengthen migratory bird conservation through enhanced collaboration and cooperation between the Forest Service and the Fish and Wildlife Service as well as other federal, state, tribal and local governments. Within the National Forests, conservation of migratory birds focuses on providing a diversity of habitat conditions at multiple spatial scales and ensuring that bird conservation is addressed when planning for land management activities.

The Clearwater National Forest Plan contains language, “Provide habitat for viable populations of all indigenous wildlife” (CNF FP 1987) that accommodates this more recent MOU.

Opportunities to promote conservation of migratory birds and their habitats in the project area exist on forest with riparian buffers, limited activities in old growth, inventoried roadless areas, wilderness areas, wild and scenic designated areas, regional snag guidelines, and the flexibility of the Forest Plan to accommodate amendments. Examples of the latter are incorporating wildlife changes in management for threatened and endangered species and sensitive species.

Design criteria for project activities cover potential disturbances to birds, and allow for mitigations of the project if necessary. Since there would be no tree harvest and cross-country activities over numerous acres, this project would have a very minor to negligible footprint on migratory birds and their habitats.

Environmental Consequences

No Action: Direct and Indirect Effects

There would be no direct or indirect effects to neotropical migrants since no activities or disturbance would occur.

Proposed Action: Direct and Indirect Effects

Noise and movement of machinery and other human activity may disturb migrant birds. The operating season may disrupt some nesting birds along the road prisms sanctioned to be decommissioned. The project would begin in July, so some bird species may have fledglings present near their nest. However, most of the project will run after young birds have left the nest. Additionally, most of the project activities would not occur in riparian habitats.

Design criteria would have the biologist involved with any detection of birds or nests by the project inspector. If the latter occurs, mitigations would be implemented to reduce impacts to birds or any animal that may be affected by the project activities.

Cumulative Effects

No Action Alternative: There would be no direct or indirect effects to neotropical migrants from this alternative; therefore, there are no cumulative effects. Current population trends would be unaffected.

Proposed Action: The short-term effects have been listed above. Long-term effects would be the benefit of increased vegetation for forest preferring migratory birds. The reduction of road densities would also discourage predation or parasitism of neotropical migrants from species that prefer edge effect habitats: cowbirds, starlings, ravens, and others. The project will not adversely impact migratory birds or their associated habitats.

CHAPTER 4. Regulatory Framework and Consistency

The Pack II Road Decommissioning Project analysis and documentation of effects is consistent with direction described below.

1. Forest Plan Direction

The Clearwater National Forest Plan (CFP), as amended, guides all natural resource management activities by providing a foundation and framework of standards and guidelines for National Forest system lands administered by the Clearwater National Forest. Forestwide management direction relevant to this project is found in the CFP on pages II-1 through II-40. Applicable goals and standards are summarized below.

- Locate, design and manage Forest roads to meet resource objectives and public concerns, and to provide optimal soil and watershed protection.
- Plan, construct and maintain a safe and cost-efficient Forest transportation system that will achieve Forest Plan resource management goals and objectives.
- Review existing system and nonsystem roads as part of transportation planning to determine road management needs, such as, closures, maintenance and obliteration.

Area specific standards and guidelines are found on pages III-1 through III-74 of the CFP. Most of the project area lies within Management Area E1, timber management, with inclusions of M2, Riparian Habitat Conservation areas. Management direction specific to the Pack II Road Decommissioning Project is summarized below.

Management Area E1 – Timber Management

- Design and develop road systems in accordance with area transportation plan procedures.
- Regulate use of roads and trails (to motorized vehicles) where needed to accomplish wildlife, watershed objectives, or property values.

Management Area M2 – Riparian Habitat Conservation Areas

- Avoid new road construction near or adjacent to streams except as specified crossings.
- Design mitigation measures that will effectively reduce sediment from road construction, use, and maintenance. (Typically at least 70 percent mitigation.)
- Design road fills, landings, tanker fills, etc. that will maintain the functions of the riparian areas, including flood moderation, and prevent resource damage.
- Design stream crossings for protection of water resource values such as fish passage, non-erosive velocities, channel stability, to avoid ponding and flooding, and to provide erosion control of road fills and surfaces.

2. Clearwater Forest Plan Water Quality Standards

Water quality standards in the CFP on pages II-27 through II-29 direct that soil and water resources be managed at levels designed to meet Forest management objectives for watersheds as well as meet Idaho State Water Quality Standards. The Forest Plan requires projects to:

- Manage water quality and stream conditions to assure that National Forest management activities do not cause permanent or long-term damage to existing or specified beneficial

uses.

- Apply best management practices (BMP) to project activities to ensure water quality standards are met or are exceeded.
- Manage all waters in the Forest under a basic standard. Streams that do not support fish populations, and do not have a specific standard listed in the Forest Plan must meet the “Basic” standard, which means that the stream “...must continue to maintain the stability, equilibrium, and function (physical and biologic) of a tributary stream as it relates to the beneficial uses of local, downstream, and parent stream...” Typically, the Geomorphic Threshold of a watershed is used to determine if a stream meets the “Basic” Standard. The Geomorphic Threshold represents the point at which a stream is no longer able to process excess sediment and/or flow without major adjustments in its form. Stable stream systems are considered to be in dynamic equilibrium, and capable of accommodating constant changes over time. Unstable streams are out of dynamic equilibrium because they can no longer accommodate those changes. Small unnamed drainages would be managed under the “basic” standard.
- Manage Pack Creek as a "high fishable" stream at a minimum of 80 percent biological potential. High fishable means “Maximum short-term reduction of water quality that is still likely to maintain a fish habitat potential that can support an excellent fishery relative to the stream system’s natural potential, and that will provide the capability for essentially full habitat recovery over time.
- Pack Creek exceeds the Forest Plan desired cobble embeddedness condition and therefore the project must be managed to produce no measurable sediment to this stream. The project would move towards meeting the objectives as potential tributary sediment sources would be removed.

The project complies with all Forest Plan standards and guidelines. It removes roads no longer needed for management which in has positive effects fish and wildlife species, including Management Indicator and Sensitive Species. BMPs would be used to minimize effects to species during project implementation. Applying BMPs would also help to meet both State and Forest Plan water quality standards.

PACFISH: On February 25, 1995, the Forest Service and Bureau of Land Management issued a decision for managing anadromous fish-producing watersheds on federal lands (USDA Forest Service, 1995), which was amended to the Forest Plan. PACFISH standards and guidelines for this project are generally related to managing roads, design features and mitigation measures such that they do not retard or prevent attainment of Riparian Management Objectives. Riparian Management Objectives (RMOs) for “forested streams” include the following stream habitat variables: bank stability, pool frequency (pools per mile), water temperature, large woody debris and width/depth ratio. The project has been designed to have a long term benefit to these objectives through road removal in Riparian Habitat Conservation Areas.

Watershed and Fisheries Resources Regulatory Framework

All Federal and State laws and regulations applicable to water quality would be applied to this road decommissioning project, including 36 CFR 219.27, the Clean Water Act, and Idaho State Water Quality Standards, Idaho Forest Practices Act, Idaho Stream Channel Protection Act, and

Best Management Practices (BMP's). In addition, laws and regulations require the maintenance of viable populations of aquatic species including the National Forest Management Act (36 CFR 219.19), subsequent Forest Service direction (Fish and Wildlife Policy, 9500-4) and Forest Service manual direction (FSM 2470, 2600). The Idaho Department of Environmental Quality identifies beneficial uses for Pack Creek and tributaries as cold water aquatic life, salmonid spawning and secondary contact recreation (IDEQ, 2011). Current status for all uses is fully supported. The project would help to maintain the streams beneficial uses.

Endangered Species Act

The proposed actions comply with the Endangered Species Act. A biological assessment and evaluation were completed for this project. The biological assessment determined that the project would have “**no effect**” on steelhead trout, bull trout, or fall Chinook salmon. The project “**is NOT likely to jeopardize the continued existence of the wolverine,**” and “**may affect, but not likely adversely affect**” Canada lynx. See project BA.

National Historic Preservation Act of 1966, as amended

Previous investigations examined most of the proposed project area and no properties eligible or potentially eligible for listing in the National Register of Historic Places were identified. Based on these result, the extent of past disturbance from road construction and timber harvest, and the terrain it was determined that this project will have no affect to known cultural resources. See project file for more information.

Other Required Analysis

This is not a major Federal action. It would have limited context and intensity (40 CFR 1508.27), individually or cumulatively, to the biological, physical, social or economic components of the human environment. It would have no adverse effect upon public health or safety, consumers, civil rights, minority groups and women, prime farm land, rangeland and forestland, roadless areas, or to old growth forest options.

A. Effects of Alternatives on Prime Farm land, Rangeland, and Forest land

All alternatives are in keeping with the Secretary of Agriculture memorandum, 1827 for prime land. The analysis area does not contain any prime farm lands or range lands. “Prime” forest land does not apply to lands within the National Forest system. With both alternatives, National Forest lands would be managed with sensitivity to the effects on adjacent lands.

B. Energy Requirements of Alternatives

There are no unusual energy requirements for implementing any alternative.

C. Effects of Alternatives on Minorities and Women

There are no unusual differences among the effects of any alternative on American Indians, women, other minorities, or the civil rights of any American citizen.

D. Environmental Justice

In regard to Environmental Justice Order 12898, the health and environmental effects of the proposed activities would not disproportionately impact minority and low-income populations. There would be no effect from the proposed activities on the treaty rights of the Nez Perce Tribe and local communities.

E. List of Preparers

Interdisciplinary Team Members

Anne Connor, Hydrologist and Team Leader

Karen Smith, Fisheries Biologist

Mike Hays, Plant Specialist

Pat Bower, Heritage Resources

Glen Gill, Wildlife Biologist

Molly Puchlerz and Heather Berg, Recreation Foresters

Tam White, Timber Management and Transportation Planning

Clint Chandler, Richard Christian, and Chet Hagen, Nez Perce Tribe, GIS and survey data

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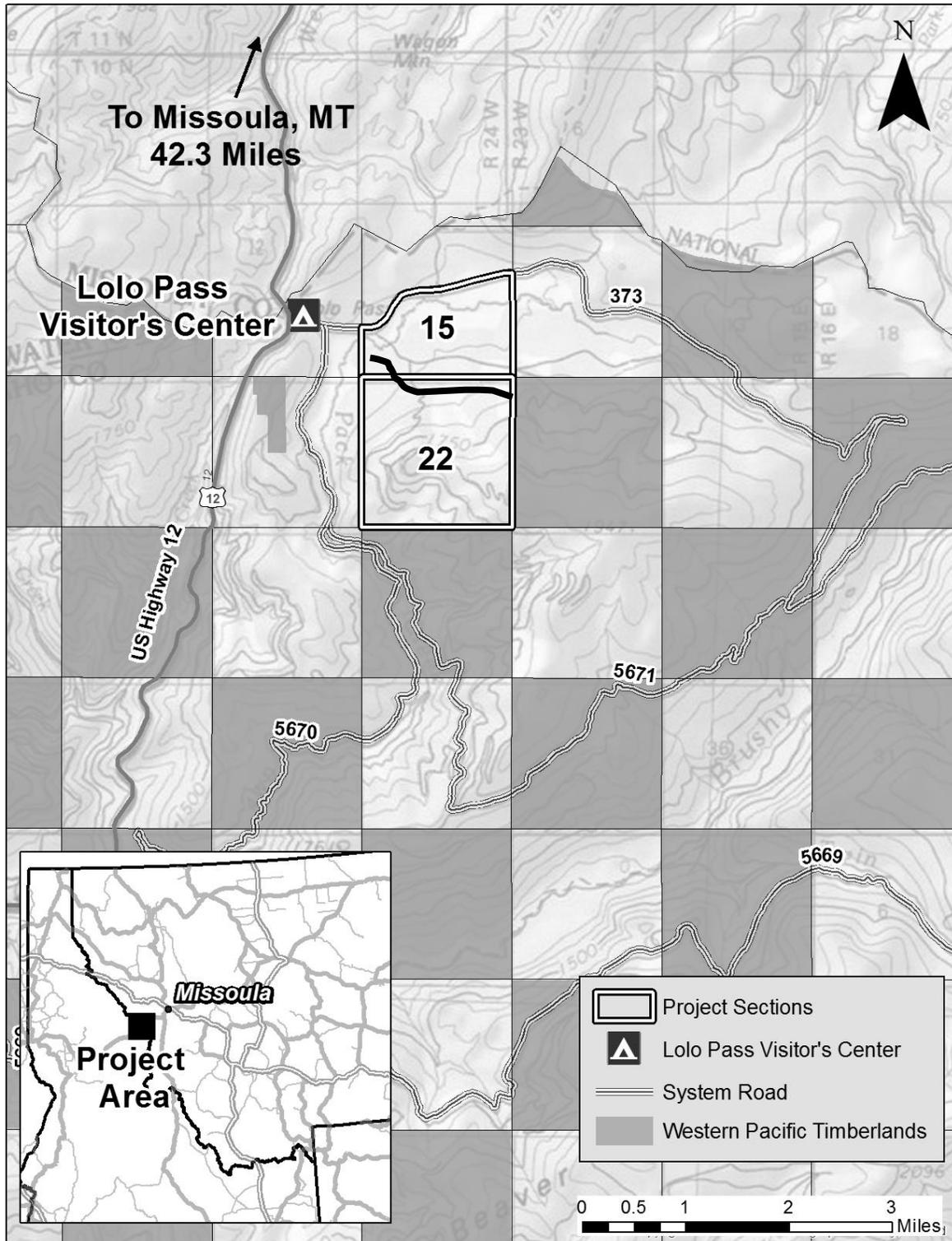
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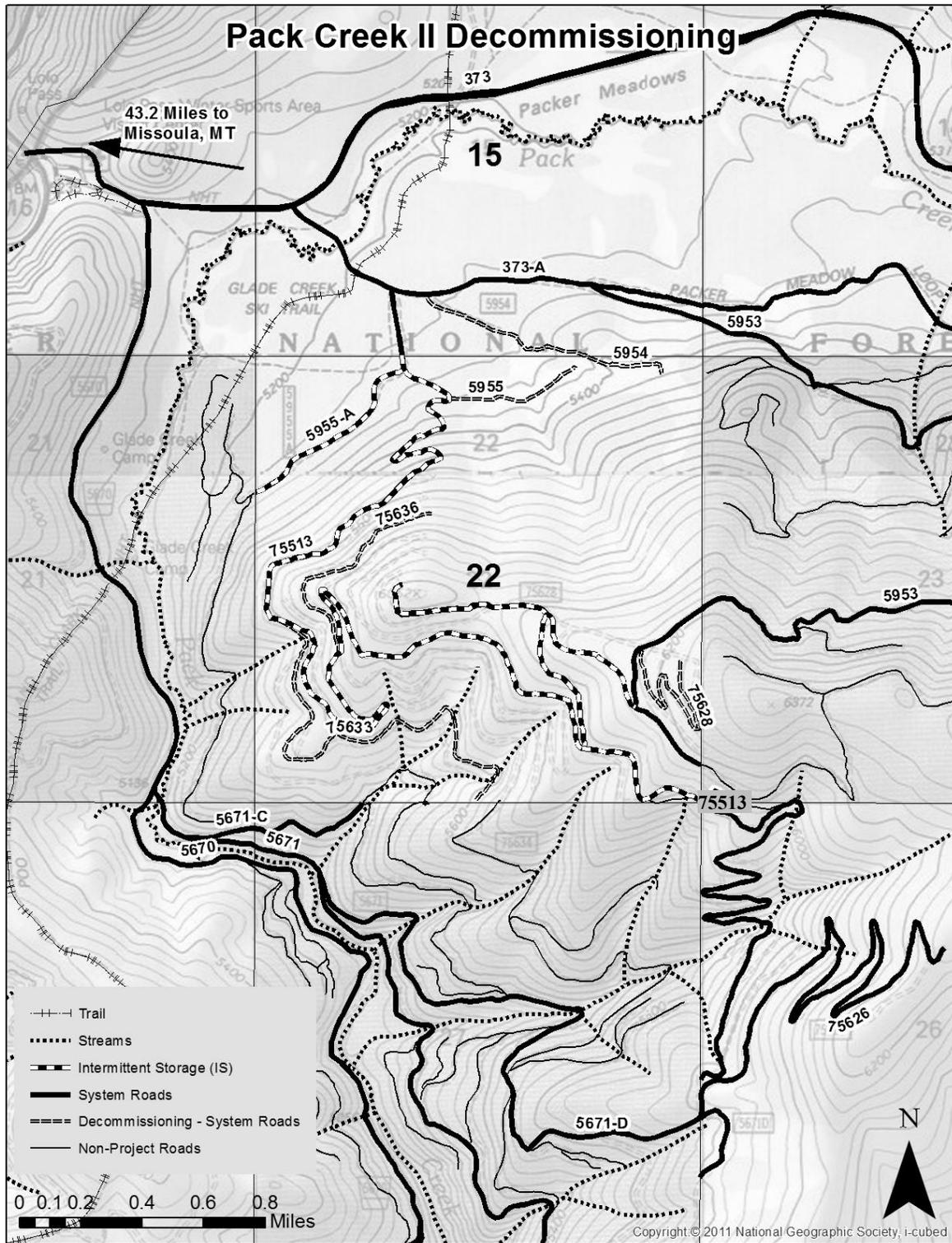
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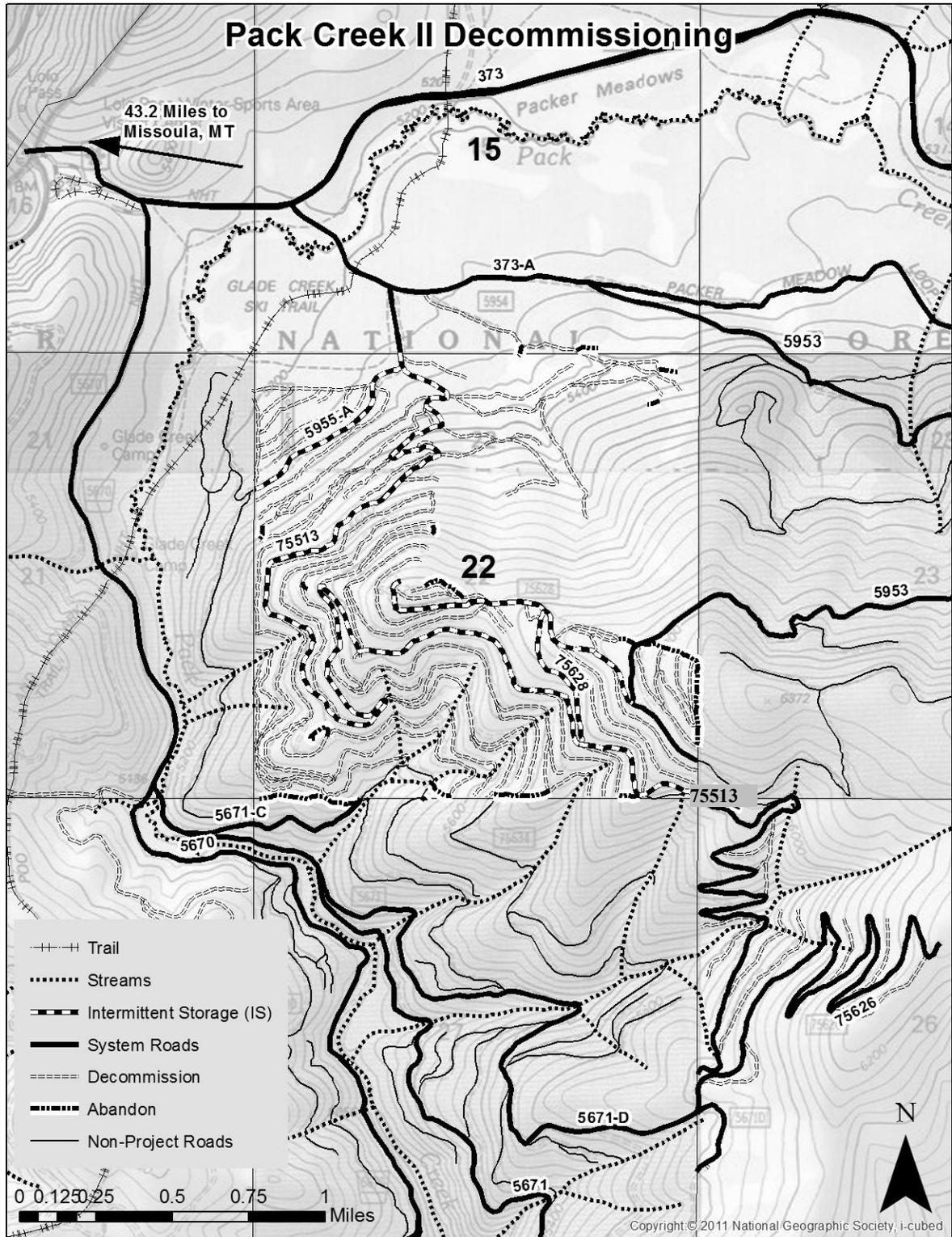
Appendix B.. Maps



Map 1. Pack II Project Area Vicinity Map



Map 2. National Forest System Roads in the Pack II Project Area, T38N R15E, Section 22 and Section 15, south of road 373A.



R 15 E

Map 3. All roads (System, Non-Project, jammer and Skid) within Pack II Project Area

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