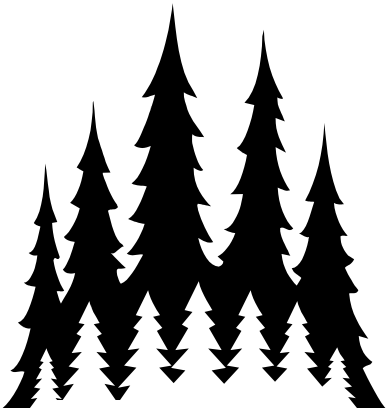
Lolo First 50
Road Decommissioning Project

Environmental Assessment



USDA Forest Service
Lochsa Ranger District
Nez Perce- Clearwater National Forest
July 2014

Lolo First 50 Road Decommissioning Environmental Assessment

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

July 28, 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 Nez Perce-Clearwater Forest Supervisors Office Annex in Kamiah, Idaho.

A. Introduction

The Lochsa Ranger District of the Nez Perce-Clearwater National Forest proposes to decommission 41 miles of unneeded Forest system roads and 25 miles of non-system skid trail/log jammer roads in the 78,600 acre Lolo Creek watershed. An intensive roads analysis has determined that these roads are not needed for future land management activities. Removal of these roads would improve hydrologic function and reduce adverse impacts to aquatic habitats over the long term. The project area is located in T33N, R5E and R6E; T34N, R5E, R6E and R7E; T35N, R5E, R6E and R7E, and T36N, R5E, R6E and R7E. The area lies about 12 miles east of Kamiah, Boise Meridian, Idaho and Clearwater Counties, Idaho. Please see the attached map for road locations. Proposed project sites can be found on Maps 1 and 2.

Of the 41 miles of road proposed for decommissioning, the following access restrictions currently apply: 12 miles are closed yearlong to all motorized vehicles, 11 miles are open yearlong to all and the remaining 18 miles are open seasonally. Of the 29 miles of roads open for some form of motorized use, 12 miles (41%) are actually drivable, while 4 miles (14%) are possibly travelable and 13 miles (45%) are brushed in and impassible. Table 1 below displays the Forest system roads that would be decommissioned.

Skid trails and old log jammer roads would also be decommissioned. These 25 miles of roads were identified through satellite imagery (LIDAR) but are not part of the inventoried Forest Service road system. These roads are typically grown over with trees and some contain log stream crossings which make them more susceptible to failure when the logs rot and collapse. It has been determined they are not needed for future management.

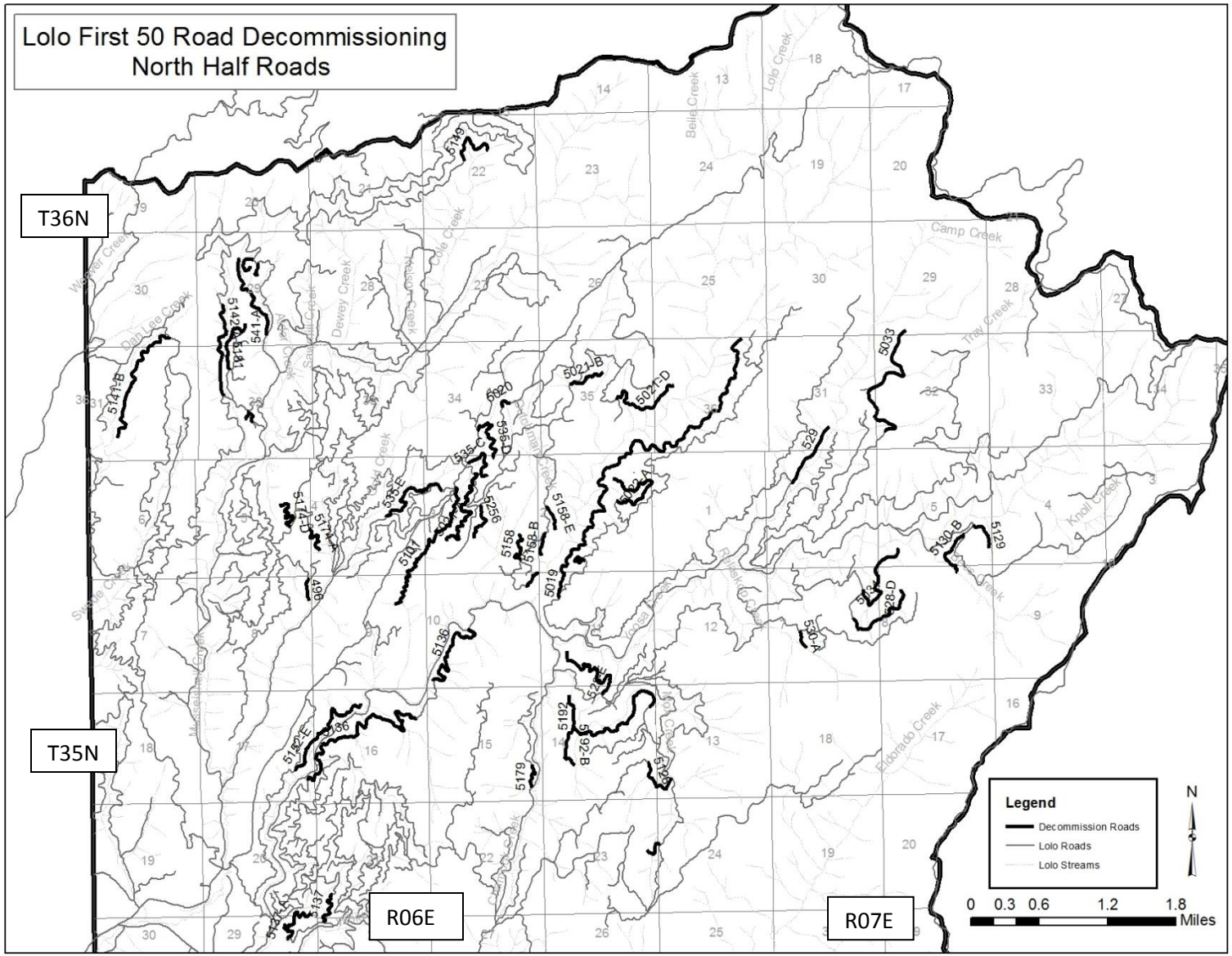
The activities would likely begin in 2015 and could take up to 5 years to complete.

Table 1- Forest system roads proposed for decommissioning in the Lolo Creek drainage, their Travel Plan status and current drivability.

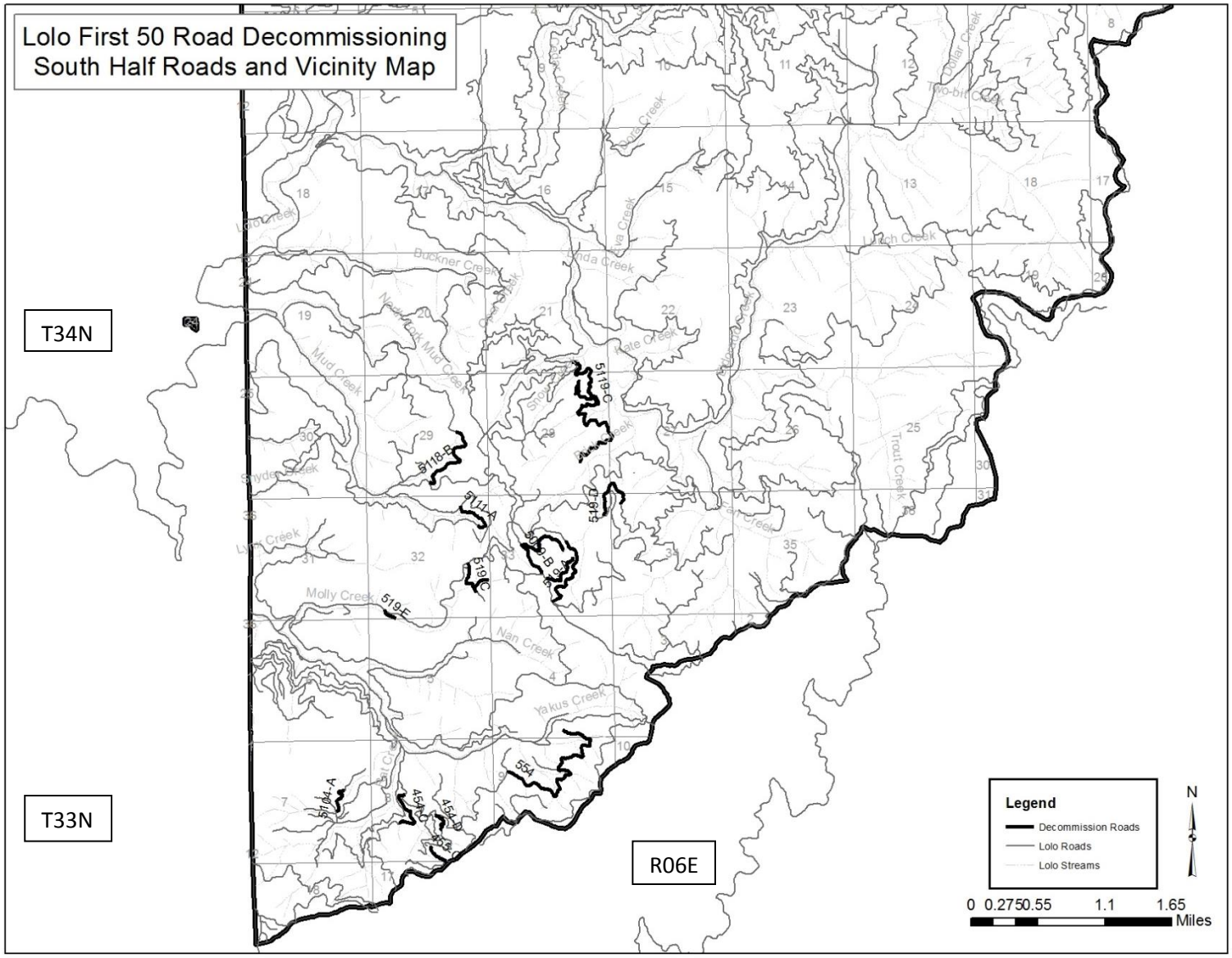
Road #	Length (miles)	Current Drivability
Travel Plan- Open Seasonally to All		
5022-B	0.2	drivable
5141-B	1.3	drivable
530-A	0.2	drivable
535-E	0.8	not drivable
535-C	0.5	not drivable
5130-B	0.5	not drivable
535-D	0.6	possibly drivable
5129	0.3	possibly drivable
5022-A	0.8	possibly drivable
Travel Plan- Open Year Round to All		
455-G	0.2	drivable
5019	3.7	drivable
5020	0.1	drivable
5033	1.4	drivable
5034	0.9	drivable
5127-A	0.2	drivable
529	0.6	drivable
5174-D	0.5	possibly drivable
528-E	1.0	not drivable
519-E	0.1	not drivable
541-A	0.8	not drivable
5142-B	0.1	not drivable
5158-B	0.2	not drivable
5158-E	0.2	not drivable
5158	0.4	not drivable
Travel Plan- Open Seasonally to Small Vehicles		
554	1.6	drivable
5104-A	0.3	not drivable
No Travel Plan Status		
5009-B	0.3	drivable
5009-B	0.6	not drivable
850185	0.1	not drivable
454-C	0.5	not drivable
5009-C	0.4	not drivable

Road #	Length (miles)	Current Drivability
Travel Plan-Open Year Round to Small Vehicles		
5179	0.2	drivable
519-A	0.7	possibly drivable
496	0.2	possibly drivable
541-C	0.1	possibly drivable
541-B	0.2	possibly drivable
5137	0.4	possibly drivable
5021-B	0.4	possibly drivable
5256	0.4	not drivable
5137-A	0.9	not drivable
5119-C	1.6	not drivable
5149	0.5	not drivable
5101	1.4	not drivable
5021-D	0.8	not drivable
5021-A	1.0	not drivable
5118-B	0.8	not drivable
5174-A	0.3	not drivable
5158-D	0.6	not drivable
Travel Plan- Closed Year Round to All Vehicles		
5136	0.5	drivable
5181	0.2	drivable
5152-E	1.5	possibly drivable
5119-M	0.1	possibly drivable
5119-J	0.3	possibly drivable
5136	0.9	possibly drivable
519-C	0.3	not drivable
528-D	0.8	not drivable
454-D	0.2	not drivable
519-D	0.5	not drivable
5192-B	0.4	not drivable
5192	1.6	not drivable
5142-A	0.9	not drivable
5136	1.5	not drivable
5181	0.4	not drivable
5111-A	0.4	not drivable
5128	0.5	not drivable

Map 1. Lolo 1st 50 proposed roads for decommissioning, north half.



Map 2. Lolo 1st 50 proposed roads for decommissioning, south half.



B. Background

The majority (98%) of National Forest lands in the Lolo Creek watershed are designated for timber production (Clearwater National Forest Plan,1987). Timber harvest has occurred in the drainage since the 1940s. Many miles of roads were constructed to provide access to the harvestable areas and were paid for through the value of the harvested trees. Forest sytem roads were engineered and built to allow for long term use. Designs included the installation of metal culverts at stream crossings and gravel surfacing on main haul routes. Lesser used routes were either graveled or had a native (dirt) surface. Additional roads or skid trails (non-system) were built and used for short term logging equipment use and typically have native surfaces. These roads were not part of the official Forest road network and have no assigned maintenance requirements, but still occur on the landscape. All of the roads on the landscape have the potential to affect other resources on the landscape, particularly aquatic habitats and watershed processes.

Roads can negatively affect aquatic systems by increasing peak stream flows. This occurs when water is intercepted by the road and is diverted into stream channels through roadside ditches. Without roads, water would normally be absorbed into the soil and released more slowly into streams through groundwater flows. An increase in peak flows can cause streambank erosion and stream channel scouring at levels greater than would naturally occur (Carnefix, 2009). Sediment from extensive bank erosion can embed fish spawning gravels and suffocate developing fish eggs that are laid there. Channel scouring can reduce egg and juvenile fish survival by flushing them out of the gravel during their early stages of development. Sediment from road surface runoff can also increase sediment in streams. The primary mechanism for the transfer of water and sediment is from roadside ditches; many of which feed directly into live streams. Culvert and road fill failures at stream crossings can also contribute substantial amounts of sediment to streams. It can take decades for this material to be flushed out of the channel through normal stream flows. Negative effects to aquatic species from excess sediment could extend over this long time frame.

Road decommissioning is focused on roads deemed no longer needed for land management activities. Road maintenance budgets have declined signficantly in the last decade and the Forest can no longer afford to maintain all of its roads. A road by road analysis was completed for all Forest system roads in the Lolo Creek drainage. The analysis team consisted of specialists from timber, silviculture, fire, recreation, fisheries, watershed, soils, and wildlife. The need for each road, both in the short term (<10 years) and the long term (>10 years) was determined by the specialists and recommendations made. A total of 41 miles of those roads deemed no longer needed for management are included in this project. The reasoning behind most of the roads include: 1) roads are in PACFISH RHCAs where timber harvest is generally not appropriate; 2) newer logging techniques and equipment allow for longer log yarding reaches and therefore the need for fewer roads; 3) uphill yarding is preferred and safer than downhill yarding which means most roads need to be located near or close to ridgetops, not near streams; and 3) previously harvested units are within reasonable distances of roads-to-be-kept to allow for future management. The roads analysis also recommended an additional 39 miles of road for decommissioning that would be analyzed under the Lolo Insect and Disease Project (currently in progress). In that project an additional 3 miles would be converted to an OHV trail after the project is complete. None of these roads were included in the Lolo First 50 Project because some of them will be

needed to harvest timber prior to decommissioning. Additional field review was also required so no final recommendation had been made prior to the scoping of the Lolo First 50 project.
Road decommissioning activities have been in the forefront for watershed restoration projects over the last 15 years. Monitoring has shown it to be effective at reducing surface erosion and mass failure risk while increasing water infiltration rates and vegetative ground cover (Foltz, 2007). It a can also have positive effects on wildlife from a reduction in habitat fragmentation and human disturbance (Switalski, 2004). Monitoring on the long-term effects on stream recovery is being conducted on Badger Creek on the Nez Perce- Clearwater National Forest. Preliminary data shows a reduction in instream fine sediment between 2001 and 2005 with a minor increase in 2007 (CNF, 2008). By 2011 sediment levels were at 33%, down from 54% before the decommissioning was implemented. The use of the decommissioned roads by a variety of large animals including mountain lions, black bear, moose, deer, and elk was also documented in the Badger Creek study (Switalski, 2010).

Funding sources for the proposed decommissioning vary but are focused on stewardship funds (timber revenues used to improve watershed conditions), Forest Service appropriated funds for roads, and Nez Perce Tribe partnership watershed restoration funds that come from the Bonneville Power Adminstration (BPA) as mitigation for the Columbia River dam system.

C. Purpose and Need

The primary objective for decommissioning roads is to reduce watershed and aquatic impacts by reclaiming roads no longer needed for management. These roads have the potential to fail in the future and deposit sediment into streams. The need for roads within the Lolo Creek drainage was analyzed in 2012. An interdisciplinary team reviewed each road and determined whether or not it, or portions of it, were needed now or in the future. Those deemed not needed for future management (timber harvest, recreation, fire suppression, and adminstrative uses) are included in this environmental assessment.

The purpose of this project is to:

- Reduce current or future potential impacts to water quality and aquatic habitats associated with unneeded roads. Reduced road densities can also improve terrestrial wildlife habitat utilization.
- Reduce current and future road maintenance costs associated with roads no longer needed for management.

There is a need for action because:

- There are miles of unneeded Forest Service roads that have not been maintained or repaired. Routine inspection of culverts and ditches on these roads is not always possible because of lack of personnel and funding. If roads are not maintained or decommissioned, there is an increased risk for surface erosion, gullying, and landslides. Such conditions can result in increased sediment delivery to streams thereby affecting water quality and aquatic habitat.
- Undersized culverts can plug with debris causing streams to overtop the culvert and cause the road fill to wash away. This in turn can contribute significant amounts of sediment to streams and degrade aquatic habitats for decades. Salmon, steelhead, and cutthroat trout which live in the Lolo drainage could be negatively affected.
- Open road densities are associated with habitat fragmentation and wildlife harassment. Decommissioning roads allows for wildlife species to utilize more contiguous habitats and promote healthier wildlife populations.
- The Forest Service has been directed to conduct a minimal roads analysis for the lands they

manage so that roads not needed for future management can be removed from the landscape and from the need for future maintenance.

- Forest Service budgets for road maintenance have not kept pace with what it costs to maintain all roads so they function properly. This trend of declining budgets is expected to continue. The number of personnel available to conduct or oversee road maintenance has also declined.

D. Proposed Action

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

- Decommission 41 miles of Forest Service system roads. These roads are not needed for future management. The activities would remove about 98 culverts, all on live streams, and recontour the hillslope where necessary. Motorized used is currently prohibited on 13 miles of these roads and of the 28 miles of road open for use, only about 15 miles are currently drivable.

- Decommission 25 miles of non-system skid trails or logging roads. These roads have not been used for management in the recent past and are not needed in the future. The activities would remove structures on live stream crossings and recontour the hillslope where necessary. These roads are grown over with vegetation and are not travelable by motorized vehicles.

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 Lolo Creek drainage contains about 580 miles of National Forest system road. About 350 miles are open for motorized use year round and 102 miles are open seasonally. The remaining 128 miles are closed to all motorized use. There is an additional 25 miles of non-system skid trails or logging roads that are not accessible to vehicles. The soils on these roads are compacted and are grown in with grass, shrubs, and/or stunted trees.

With the exception of the mainline roads and roads used for recent logging activities, few of the remaining system roads have been maintained in the last decade. Maintenance is conducted primarily on roads that are opened to motorized traffic. The roads not open to use typically have surfaces grown over with grasses and shrubs and are in lower need for maintenance. The non-system skid trails and roads are not considered part of the Forest road system and receive no maintenance.

There are a minimum of 22,000 acres (28%) of Riparian Habitat Conservation Areas (RHCAs) in the project area and a minimum of 178 miles of road within them. This is equivalent to 30% of all Forest

roads in Lolo Creek. There are 832 stream crossings associated with these roads which have the potential to contribute sediment to streams.

G. Public Involvement

On October 31, 2013 a scoping letter describing the proposed action, location and purpose and need were sent 182 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. Letters or messages received from six commenters were considered in the analysis.

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.

The proposed action was initially developed from preliminary issues, concerns, and existing conditions identified by the interdisciplinary team (IDT). Resource specialists and the District Ranger reviewed public comments and incorporated some of them as design features.

A. Issues Used to Develop Design Criteria

Aquatic Habitat– Some roads, particularly those within Riparian Habitat Conservation Areas (RHCAs) are 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.

Issue Indicator: Total miles of system roads in RHCAs
Issue Indicator: Number of stream crossings on system roads

Road Density – Excessive road densities can compromise the project area's ability to support fish through sediment input to streams.

Issue Indicator: System road densities within the project area
Issue Indicator: System road densities within RHCAs

Road Maintenance Costs- The cost of road maintenance is increasing and the Forest Service budget to maintain roads is decreasing.

Issue Indicator: Miles of system road needing maintenance
Issue Indicator: Road maintenance costs to keep proposed decommission roads

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 not analyzed in detail

The following issues will not be considered in detail. They have already been decided by law or policy, are outside the scope of the project or are only minimally or not affected by the proposal.

Road maintenance plan for retained roads: One commenter requested the inclusion of a maintenance plan for all roads that are being retained in the analysis area. This NEPA analysis focuses specifically on roads that are no longer needed to conduct land management activities. Road maintenance is outside the scope of this project as it has been categorically excluded from further analysis (FSH 1909.15, 31.12(4)). In addition, the need for road maintenance is dependent on the weather for any given year (storm events, precipitation) in combination with a variety of road design factors (location, slope, surfacing, etc.). Roads are identified for maintenance on an as-needed basis using these features. The roads that are not open to motorized use have been put into a maintenance-free condition (waterbars for drainage and/or over-seeded with grass).

Consider decommissioning all roads contributing significant levels of sediment: Once commenter suggested decommissioning all roads contributing significant levels of sediment. There are many roads that are needed for future management that may be contributing sediment to streams. These roads can be upgraded within additional drainage to divert sediment away from streams and therefore need not be decommissioned. Recent timber sales in the Lolo Creek drainage are improving roads as the sales are implemented (Swede, Lochsa Thin, upcoming Lolo Insect and Disease) thereby reducing potential sediment effects to streams.

Roads on landslide prone: One commenter wanted a discussion of roads occurring on landslide prone areas. The Lolo Creek area occurs on gentle gradient topography with little in the way of landslide prone (mass wasting) areas. A total of 16 miles of all roads in the drainage occur on high mass wasting potential areas. This equates to a very low road density of 0.1 mi/mi^2. Of those, 3 miles are proposed for decommissioning with the project.

Elk habitat effectiveness: One commenter suggested analyzing the effects to elk habitat effectiveness which is heavily influenced by roads open to motorized use. Big game species would receive benefits from road decommissioning due to the return of natural vegetation which provide short term forage and long term cover for these and other species. It also removes disturbances associated with motorized use including recreation, hunting, and occasional road maintenance. Measurable effects to modeled elk habitat effectiveness levels would not likely be seen as the roads proposed for decommissioning occur generally within ¼ mile of an existing road. Effectiveness changes in the elk model only when roads are a minimum of ½ mile away. There are 18 Elk Habitat Analysis Units in Lolo Creek and all are currently meeting Forest Plan standards of at least 25%.

Disclose how many fires were human caused (roads provide access and a risk for human caused fire): A total of 467 fires were recorded in the Lolo Creek drainage since 1970. Of those, 92% were caused by lightning, 2% were caused by equipment, and the remaining 6% were caused by smoking, campfires or arson. A total of 335 acres are associated with human caused fires. Roads are not considered a major contributor to fires in the drainage.

Some of the road decommissioning funds should be spent on trail maintenance: One commenter suggested not decommissioning one or two roads and using some of the road decommissioning funding to maintain trails. There has been a decline in trail funding and trail maintenance is much less expensive than road decommissioning. The funds that will be used for decommissioning are stewardship funds or Nez Perce Tribe funds from BPA. Both of these sources can only be spent on projects that improve watershed conditions and would only be available for trails work if there are identified watershed issues associated with the trail (such as failing stream crossings or erosion from the trail surface into streams). No issues have been identified for trails in the Lolo Creek drainage at this time. If issues are identified, we can request funds from either source. A third source of funding would be Forest Service appropriated funds for trails. We acknowledge the lack of trails funding and the need to maintain our trails, however road funds to be used for decommissioning cannot be used for trail work.

Forested stands require silvicultural treatments in Forest Plan E1 ground. Disclose the areas needing treatment, including commercial thinning over the next 20 years and how the proposal would impact those areas: The majority of roads proposed for decommissioning occur within or adjacent to PACFISH buffers or old growth, both of which have very limited opportunities for timber harvest or any silvicultural treatment. In other cases there are roads just upslope and/or parallel to the roads proposed for decommissioning. Current logging technology and the use of temporary roads would allow for timber harvest and retains access to areas that would require other silvicultural treatments in the future. Our silviculturist and timber representatives looked at each road in detail to determine their need for the road and were comfortable with the proposed decommissioning.

Assess effects to cultural resources: Heritage resource surveys were conducted and one site was found near one of the roads. Proposed activities would avoid disturbing the site.

Effects to Threatened, Sensitive, or Management Indicator (MIS) wildlife species: There would be *No Impact* on the following Clearwater NF sensitive species and therefore they will not be discussed further in this document: bald eagle, black-backed woodpecker, flammulated owl, fringed myotis, gray wolf, harlequin duck, long-eared and long-legged myotis, pygmy nuthatch, ring-necked snake, and Townsend's big-eared bat. The project does not pose a threat or affect habitat for Management Indicator Species and neotropical migrants. Nesting or denning habitat for the above species does not occur in the road prisms affected by the proposed action. Decommissioning activities would create short-term noise disturbance during daylight hours. The daytime activities would not disrupt night time foraging opportunities for bats, owls or wolves. Trees used for wood placement are minimal, and other standing trees in and adjacent to the project area would be available for bald eagles, owls, bats, woodpeckers and nuthatches. Treated road prisms would revegetate through natural processes. Additional rationale for these findings can be found in the Wildlife Specialist Report in the project file.

The project would have no effect on ESA listed (threatened) fall chinook salmon since none are known to occur within Lolo Creek.

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 2015. The average duration of actions of this size is up to six years due to the large number of road miles associated with the proposal.

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 Lolo First 50 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. Maintenance would not occur on many roads due to declining budgets. This would continue to increase the risk of uncontrolled water runoff, surface erosion, fill failures and decreased slope stability. Leaving undersized 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 41 miles of Forest Service Road. These roads are not needed for future management. The activities would remove culverts on all live stream crossings including three that occur on small fish bearing streams.

- Decommission 25 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. The activities would remove structures on all live stream crossings.

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, most of the roads would receive the following treatments unless identified otherwise:

- Where noxious weeds exist, roads would be pre-treated with appropriate chemicals (the effect of weed treatments were analyzed under the Lochsa Weeds EA, 2005)
- Road surfaces would be decompacted and road prisms recontoured or strongly outsloped, fill material would be removed from unstable areas.
- For every road, all culverts and ditches would be removed.
- Gates previously used to prevent vehicle access will be removed and the area around them made 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 will be created at the top edge of the decommissioned road to allow for unimpeded foot and wildlife traffic.
- At completion, the decommissioned road will 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:

- All instream work will occur after August 1 on the seven crossings that occur within 600' of steelhead designated critical habitat in order to minimize turbidity levels in critical habitat. These crossings occur on Roads 5152-E, 5136, 5021-D, and Road 529
- The contractor would have spill prevention material on site to minimize the risk of an accidental spill or leakage.
- When working in the stream, remove all fill around pipes before water bypass installation and pipe removal. Where this is not possible, use a non-eroding diversion. Use a non-eroding diversion in any channels where the culvert has been removed or has failed;
- The stream would be dewatered at the site using a non-eroding, water tight diversion during excavation. Settling basins or other methods would be used to ensure that muddy water does not return to the stream. Diversions would be installed operated and removed such that erosion and sedimentation is minimized.
- 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.
- Treatments along stream crossings require a complete recontour of all fill material with stream channels restored to natural grade and dimensions.
- 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 (clump planting).
- 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. 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. 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.
- 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.

Project design features are aimed at minimizing effects to specific resources. 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

One commenter suggested an alternative that creates some OHV loop trails where possible and puts the remaining roads into long term storage. This alternative partially meets the purpose and need to reduce road-related negative effects on streams; however it does not meet purpose to remove roads deemed not needed for future management. Roads placed into storage are not accessible by vehicles and would not be available for OHV use. Storing these roads would also mean that future costs would be incurred to either remove them or rebuild them. The creation of OHV loop trails are limited on the roads proposed for decommissioning as most dead end with little opportunity to connect them to other roads. In addition, the trails maintenance budget is also declining thereby making it unlikely that the Forest could build and maintain new trails. The Lolo Insect and Disease Project identifies 3 miles of road in the Lolo Creek drainage that would be converted to OHV trails as recommended by local OHV user groups and would partially address this concern.

F. Alternative Comparison

This section presents a comparison of alternatives by the purpose and need identified in Chapter 1. Table 2 below displays how well the alternatives respond to the purpose and need based on indicators established to measure the responsiveness.

Table 2: Alternative Comparison to Purpose and Need

Indicator	No Action	Post- Proposed Action
Purpose: *Reduce current and future potential impacts to water quality and aquatic habitats associated with unneeded roads*		
Miles of system roads in RHCAs Number of stream crossings on system roads	178 832	161 734
Purpose: *Reduce current and future road maintenance costs*		
Miles of system road requiring maintenance Road maintenance costs to keep proposed decommission roads*	580 $2,600,000	539 0

*includes a one-time implementation of general maintenance, cross drain and stream crossing culvert replacement

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 proposed action design features. Table 3 provides a comparison of the alternatives in relation to the issues described in Chapter 1.

Table 3. Alternative Comparison by Issue

Resource Issue ➢ **Issue indicator**	**No Action**	**Proposed Action**
Effects to Aquatic Resources		
Miles of system roads in RHCAs Number of stream crossings on system roads	178 832	161 736
Road Density		
System road density (mi/mi$^{2)}$ RHCA road density (mi/mi$^{2)}$	4.7 5.2	4.5 4.7

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.

A. Aquatic Resources

Affected Environment

The analysis area for aquatic resources includes the entire Lolo Creek drainage on Forest managed lands. The area was selected as it contains all roads proposed for decommissioning and all streams associated with the roads that might be affected. The following analysis was conducted in combination with field reviews, Google Earth photo imagery (2013), and mapping in a Geographical Information System (GIS).

There are 520 miles of streams with a minimum of 22,000 acres of Riparian Habitat Conservation Areas (RHCAs as designated by PACFISH) in the project area. Timber harvest is generally not allowed in these areas so that the natural processes for wood recruitment, shade, bank stability, and habitat development along streams can occur without interruption. There are about 140 miles are fish bearing and 380 miles that do not contain fish. The drainages where road decommissioning is proposed include Yakus, Mud, Brick, Upper Lolo, Siberia, Yoosa, Camp, Mox, Gold, Greer Gulch, Alder, and Dan Lee Creeks (Maps 1 and 2).

Fish surveys indicate annually varying populations of spring chinook salmon and steelhead trout through the Lolo Creek drainage. The majority of spawning and rearing habitat for these two species occurs on the mainstem of Lolo Creek between Musselshell and Yoosa Creeks. Chinook salmon are a Forest Service sensitive species and steelhead trout are listed as threatened under the Endangered Species Act (ESA). Westslope cutthroat trout occur in moderate to high densities throughout the drainage and are a sensitive species. They are the only species occurring in the majority of the Eldorado Creek drainage due to a bedrock falls and cascade barrier 1 mile up from the mouth of the stream. Bull trout, an ESA threatened species, has been observed rarely in Nez Perce Tribe juvenile monitoring traps (one or two per year). Western pearlshell mussels, a sensitive species, are known to occur in Lolo, Eldorado and Musselshell Creeks. No interior redband trout, a sensitive species, are known to occur in Lolo Creek (May, et al, 2012).

Stream habitat surveys in the 1990s for the various streams show that many of the streams had low flows, shallow depths, lack of instream cover and pool habitat. They also noted reduced fish habitat quality resulting from higher than desired sediment levels as measured by cobble embeddedness. Stream conditions are slowly improving as a result of RHCA retention on all streams (300’ on fish bearing, 150’ on non-fish bearing perennial, and 100’ on intermittent streams), very little new road construction, and road improvement and road decommissioning activities. Local monitoring indicates that sediment from timber harvest units is not reaching streams due to the presence of PACFISH buffers (Nez Perce-Clearwater NF, unpublished data, 2014). Since 1997 roughly 130 miles of road decommissioning has occurred in the Lolo Creek drainage. Recent cobble embeddedness monitoring data is displayed in Table 4 for various streams in the drainage. Declining trends in sediment are slow

but are becoming evident.

Table 4. Cobble embeddedness levels over time in selected Lolo Creek drainage streams.

Stream (Forest Plan Desired Condition)	**Year**	**Mean CE %**	**Forest Plan Desired Condition (%)**
Camp Creek (<35%)	2013 1997 1992	**39** 41 46	<35%
Lolo Above Yoosa (<30%)	2013 1998 1993	**56** 59 65	<30%
Mox Creek (<45%)	2013 1997	**47** 97	<45%
Musselshell Above Tunnel (<35%)	2013 1991	**45** 56	<35%
Cedar Creek (<35%)	2013 1991	**45** 79	<35%
Lolo Above Eldorado (<35%)	2013 1998 1993	**33** 38 45	<35%

Roads Miles and Densities: There are about 580 miles of system roads within the Lolo Creek drainage. About 350 miles are open for motorized use year round and 102 miles are open seasonally. The remaining 128 miles are closed to all motorized use. There is another 25 miles of non-system skid trails or jammer roads that are not accessible to vehicles. Roughly 15 miles of the roads proposed for decommissioning are currently accessible to vehicles, the rest are grown over with vegetation and are not drivable (Table 1). The grown over roads are not currently adding sediment to streams but the crossings associated with them have to potential to fail over time potentially contributing large amounts of sediment. Failures could lead to increases in cobble embeddedness.

Overall watershed road densities are 4.7 mi/mi^2. A total of 178 miles of Forest system road, or 30% of all roads, occur within the RHCAs. Road densities are 5.2 miles/mi^2 within them and there are at least 832 stream crossings under these roads. Desired densities are less than 3 mi/mi^2. Road densities in Lolo Creek are therefore much higher than desired. Depending on the design of the roads, high densities can indicate a large potential chronic sediment source to streams from road surface erosion. The highest risk roads are those where road ditches drain directly into live stream crossings. Properly designed roads where cross drains divert ditchline sediment onto the forest floor instead of live streams can greatly reduce the amount of sediment entering stream. Culverts under roads at stream crossings also have the potential to fail as they age, increasing the risk for sediment delivery of the road fill material into streams.

Environmental Consequences

No Action: Direct and Indirect Effects

Under this alternative, all roads would remain on the landscape and road densities would not change. 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. There are 96 culverts on roads not needed for future management. On average there are about

100 cubic yards of fill material over each of these culverts for a total of roughly 9,600 cubic yards. The culvert failure risk is low to moderate in the area; however the risk of failure increases as crossing structures age. Most metal culverts have a life span of 20-40 years depending on site conditions. The addition of any or all of the 9,600 yards of material through crossing failures could set back any sediment recovery that streams have experienced over the last two decades.

Proposed Action: Direct and Indirect Effects

The project would decommission 17 miles of roads within RHCAs. Road decommissioning would directly add small amounts of sediment into project area streams during stream crossing removal. It would also disturb existing instream sediments at this time. Best Management Practices would be incorporated into project design to minimize the amount of new sediment added. BMPs include dewatering of the site during crossing removal and the placement of sediment catching devices (straw bales, silt fence) around the work area and in the stream channel. Slash and/or erosion blankets would be placed on raw re-contoured slopes to minimize erosion on disturbed soils at crossing sites.

Road decommissioning activities would remove 96 perennial stream crossings, three of which are on cutthroat trout only fish-bearing streams (Mox, Tray, and Brick Creeks). Stream crossing removals would contribute about 20 pounds of new sediment to streams from each site (Foltz, 2008) for a total of 1,920 pounds (just under 1 cubic yard). This amount of sediment is considered negligible due to the highly dispersed area over which activities would occur. It is not expected to be measurable at the stream or watershed scale. The long term benefit to streams would be the removal of about 9,600 cubic yards of fill material from over the culverts (average 100 cu yds/crossing) that no longer have the potential to enter streams since crossing failure potential would be eliminated. The project would result in a 12% decrease in stream crossings in the drainage.

Project activities would increase turbidity levels when crossings are removed and during spring runoff the following year. The turbidity is primarily caused by disturbing existing instream sediments during channel re-contouring and re-watering activities. The sediments and increased turbidity levels will settle out downstream; the distance is expected to be less than 600’ due to small stream size and low flow during the summer season when work would occur (Foltz, 2008). Sediment input will occur over a short time frame (less than 1 day per site). The addition of sediment from work areas just outside the stream channel would be slight due to the installation of silt fence and straw bales (BMPs) at the work site. These areas are, however, susceptible to erosion during early heavy fall rains and have been known to contribute visible amounts of sediment to streams even with BMP implementation (Cedar Creek culvert replacement, personal observation, 2004). These are relatively uncommon occurrences. Detecting measurable increases in turbidity would be low during spring runoff due to the difficulty in separating project-related sediment from naturally occurring sediment during this high flow period. Project activities would convert a total of eighty-five acres of the RHCAs back into forested conditions which would provide for current and future woody material input and shade. There would be a 9% reduction of system roads within RHCAs.

There would be no direct effects to ESA listed steelhead, designated critical habitat for steelhead, or bull trout since no activities occur at sites occupied by either species. Indirect effects could occur as a result of increased turbidity downstream, therefore the determination of effects to these species and steelhead designated critical habitat is “*may effect, not likely to adversely affect*”. The effects are expected to be negligible since only 7 of the 96 stream crossing sites are within 600’ of known

steelhead occupation or their designated critical habitat. All occur near the mainstems of Lolo and Camp Creeks which have wide stream channels and large enough summer flows to dilute any sediment that enters from the smaller tributaries where the decommissioning activities occur. Only 3 of the culverts have the potential to add visible sediment to Lolo or Camp Creeks (Road 5136, Road 529) as the stream flow at the remaining 4 crossings would either be intermittent or so low during removal that sediment would not travel from the removal site to Lolo or Camp Creeks. The closest culvert that could add sediment is 380' from Lolo Creek. There may be a minor turbidity effects on cutthroat trout in Mox, Tray, and Brick Creeks; however effects are expected to be minimal since the culvert removals are higher up in these streams where cutthroat densities are low. Direct mortality at these sites is unlikely due to dewatering of the channel prior to culvert removal. Turbidity increases may cause cutthroat to temporarily move downstream away from the site. They would move back into the site once turbidity decreases to acceptable levels, usually within 2 hours of when instream activities cease. No long term negative effects to the fish are expected. There would be a long-term beneficial effect to aquatic habitats and species by removing potential sediment sources in and around riparian areas.

Overall watershed road densities would decrease slightly to 4.5 mi/ mi^2 and RHCA road densities would decrease to 4.7 mi/ mi^2. These levels are still well above desired conditions of less than 3 mi/mi^2; however for the roads remaining on the landscape and needed for future management, road improvement activities associated with other projects such as Lochsa Thin and Lolo Insect and Disease would decrease the effects of roads on streams. Those activities include road surfacing and the addition of cross drain culverts that would divert road related sediment away from streams.

Cumulative Effects

The cumulative effects analysis area is the Lolo Creek drainage on Forest managed lands. 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 2015 to 2022. It starts when road decommissioning activities would begin and would last 2 years past when they could be completed. The extra 2 years is added as that is the time it takes for vegetation on decommissioned roads to get well established and minimize surface erosion from disturbed soils at stream crossings. The activities considered for cumulative effects include the project-related decommissioning work combined with the additional 39 miles of decommissioning associated with the Lolo Insect and Disease project. A total of 15 miles of RHCA road would be removed with an associated 47 crossings under that project. There are no other past, current, or future foreseeable activities that would affect instream sediment. Timber harvest is not expected to add sediment to streams based on local monitoring and was therefore not considered in cumulative effects.

Road decommissioning activities operate within active stream channels which may increase sediment levels. Each culvert removal site could add 20 pounds of sediment to the stream. There would be a total of combined total of 143 stream crossings removed as a result of both the Lolo 1st 50 and Lolo Insect and Disease projects. A total of 2,860 pounds (1 cubic yard or about 1/8th of a dump truck load) of sediment could be added to Lolo Creek over the 7 year time frame. The same design features would be implemented for the decommissioning under Lolo Insect and Disease project in order to minimize sediment input. Sediment is not expected to be measurable more than 600' downstream from any removal or replacement site based on past monitoring of similar activities. The risk of cumulative effects to instream sediment is considered very low and the effects would be negligible at the

watershed scale.

Cumulatively total system road miles in Lolo Creek would decrease to 500 miles, and RHCA road miles would decrease from 178 to 146 miles. This is a 16% decrease in watershed and 17% decrease in RHCA road miles. Watershed road densities would decrease to 4.1 mi/mi^2 and RHCA densities would decrease to 4.2 mi/mi^2. Cumulatively 143 stream crossings (17%) would be removed. No non-system roads would remain after both projects are complete. There would be a positive cumulative effect to instream sediment as a result of these activities through the removal of potential road crossing failures and the removal of roads where surface erosion and ditchlines feed directly into streams. Roughly 14,300 cubic yards of fill material would be removed at the crossings.

Consistency with Laws, Regulations and Policies

The proposed activities are consistent with PACFISH in that it conducts watershed restoration activities that would benefit anadromous fish over the long term. Road decommissioning reduces potential sediment input through stream crossing removals and the elimination of road failure risk.

The project is also consistent with the Clearwater Forest Plan in that it allows streams to be able to continue to trend toward meeting desired conditions for cobble embeddedness by reducing the risk for future input of sediment to streams.

The project complies with the Endangered Species Act in that there would be no adverse effects to steelhead trout or their designated critical habitat, or to bull trout. There are only 7 sites within 600' of known steelhead distribution or designated critical habitat and effects are expected to be negligible in the short term and beneficial in the long term. Very few bull trout have been observed in the Lolo drainage. The activities are not expected to directly affect either species and any indirect effects are expected to be negligible due to design feature implementation that minimizes sediment input to streams. The project would allow for instream sediment reduction and aquatic habitat improvement over time.

C. Road Maintenance vs. Decommissioning Costs

Affected Environment

There are 580 miles of Forest managed roads in Lolo Creek. Road maintenance is generally focused on the 452 miles of roads open year round or seasonally. Only a portion of these roads are maintained annually depending on budgets and individual road conditions. Maintenance can include all or some of the following: blading the road surface to maintain drivable conditions, brushing to improve site distance for safety reasons, rebuilding ditches, adding or replacing cross drain and stream crossing culverts to maintain proper drainage, or adding new surfacing (rock/ gravel) to the road in order to maintain drivable conditions. Drainage improvement activities can also help reduce the amount of sediment added to streams from roads.

Maintenance budgets for Forest roads have decreased by 86% since 2000 while road maintenance costs have increased by 76%. The ability of the Forest to maintain roads at pre-2000 levels has therefore become a challenge. With shrinking budgets and increased maintenance costs, the need for

decommissioning roads becomes necessary, especially on roads deemed not needed for future management.

The cost to conduct general maintenance (pulling ditches, cleaning catch basins, scarifying and shaping and blading the surface) of 1 mile of average road costs $1,800. The timespan between blading's depends on the maintenance level of the road and how much traffic the road receives. More extensive maintenance can occur and includes cross drain and stream crossing replacements. Depending on the number of culverts involved, the road maintenance costs would be driven upward. In general, a typical cross drain culvert costs nearly $2600 to replace every 20-40 years, depending on site conditions. Typically there are about 10 cross drain culverts per mile of road. When one round of general maintenance costs are combined with one round of cross drain culvert replacements, the total cost per mile of maintenance is roughly $27,800.

These costs discussed above do not include stream crossing replacements where culverts can range from 48" to 10' in diameter and can cost between $15,000 and $100,000 to replace depending on the site. The 39 miles of roads proposed for decommissioning contain 96 stream crossings.

The Forest has been decommissioning roads since 1992 and the current cost of road decommissioning ranges from $4,000 to $10,000 per mile. Roads with deep fills on steep hillslopes tend to cost the most. Within Lolo Creek, decommissioning so far has ranged between $4,000 and $6,000 per mile. For the purposes of this analysis, $10,000 per mile is used as it displays the highest expected decommissioning cost.

Environmental Consequences

No Action: Direct and Indirect Effects

No road decommissioning would occur under this alternative. Road maintenance would occur at some time on the 41 miles of road. The cost for general maintenance to occur one time on each road would be $73,800 at today's costs (41 miles x $1,800/mile). The same costs would be repeated over time as determined by road conditions; however future costs would be higher due to inflation. Assuming there are 10 cross drains per mile of road, or 410 pipes total, the cost to replace them all would be about $1.1 million ($410 x $2,600 each). The 96 stream crossings would eventually need to be replaced within the next 20 years since none have been replaced in the last 20 years. Given an average low cost of $15,000 each, the minimum cost to replace them would be $1.4 million at today's prices.

The cost of a one-time through general maintenance effort combined with cross drain and stream crossing replacement on the 41 miles of road would be about $2.6 million.

Proposed Action: Direct and Indirect Effects

The direct cost of decommissioning 41 miles of road would be about $410,000. The removal of these roads off of the Forest Service road system would indirectly save money as no further dollars would be spent on maintaining them in the future. This would allow the limited maintenance dollars to be spent on roads needed for future management (timber harvest, recreation, and administrative use).

Cumulative Effects

There would be positive cumulative effects to the maintenance budget when this project is combined with the additional 39 miles of road decommissioning proposed under the Lolo Insect and Disease

project. When combined, the 80 miles of decommissioning would eliminate the need to spend about $5 million on road maintenance into the future. Road decommissioning 80 miles would cost about $800,000 to implement. There would be a positive cumulative effect on the Forest road budget by removing the need to maintain roads not deemed not needed for future management.

Consistency with Laws, Regulations and Policies

The project is consistent with Forest Plan objectives in that it incorporates transportation planning into the project area analysis, determines road management needs, such as closures, maintenance, and decommissioning, and implements a road management program that is responsive to resource protection needs, water quality goals, and public concerns.

D. Wildlife

This section addresses the effects of road decommissioning on three wildlife species specifically (western toad, Coeur d'Alene (CDA) salamander and fisher) and other wildlife species in general.

The analysis area for wildlife is the project area because the direct, indirect and cumulative effects of the project could only occur in these areas. The anticipated effects would occur in relatively small areas compared to the larger extent of habitats surrounding each of the roads.

Affected Environment

There are 452 miles of road open to some form of vehicular use during the year and 128 miles of closed roads. There are about 5 acres of land associated with each mile of road therefore the total amount of land occupied by roads is roughly 2,900 acres, or 4% of Forest lands in Lolo Creek. Roads can fragment forested stands and therefore wildlife habitat. Roads open to vehicle use have the greatest potential to affect wildlife due to a lack both cover and foraging habitat. These roads also have the highest risk for human/wildlife contact which can lead to the disturbance and direct mortality of wildlife. Open roads make it easier for hunters and trappers to access preferred habitat for larger game species such as elk, deer, marten, bear, cougars and furbearers. These activities occur mostly in the fall and winter seasons. Wildlife disturbance can occur during any time of the year. Direct collisions with vehicles are a more common cause of mortality for the smaller animals such as amphibians, reptiles, and birds (Switalski, 2004) but have little bearing on larger game species.

Roads that are closed to vehicle use and have not been maintained tend to grow over with grasses, mosses, and if old enough, small trees. They also can have a small downed wood component as trees surrounding them die and fall. These roads mostly provide wildlife species with cover and travel corridors and may provide foraging habitat for some species. Forage is limited however due to the compacted condition of the road surface which does not allow for the development of deep plant roots. This, in turn, limits the amount and types of native vegetation, and potential forage that can grow on the roads. Signs of those most commonly seen species using closed road are bear, moose, coyote, deer and elk.

Of the 41 miles of road proposed for decommissioning, 26 miles are currently drivable. A total of 15 miles are not drivable and could provide cover or minimal amounts of habitat for wildlife species.

The project area provides habitat for fisher, more so during the winter than in the summer months. Fisher were detected in the project area during summer of 2013.

Streams may provide habitat for CDA salamanders though none have been documented in the project area. Western toads are likely to occur within the project area but densities are unknown.

Environmental Effects

No Action: Direct and Indirect Effect

There would be continued direct mortality effects to small animals through direct collisions with vehicles on drivable roads. The indirect disturbance and mortality effects from easy access into preferred habitats for game species would also continue, primarily on open roads, especially during the fall and winter months.

Wildlife species would continue to use closed roads for travel corridors, cover habitat, and some foraging where it is available. Snags and downed woody material used by amphibians and other small animals would generally be lacking on these roads. These roads are not expected to develop into quality wildlife habitat that contains wood, native vegetation, snags or large trees due to the compacted road surface.

Proposed Action: Direct and Indirect Effects

Road decommissioning may negatively affect wildlife species through noise-associated disturbance, potential habitat loss, or direct mortality of individuals, especially small mammals, reptiles, or amphibians. This is most likely to occur on the 15 miles of currently not drivable roads as they have the greatest likelihood of being used by wildlife. The effects of activities on all 41 miles of road are expected to be isolated and would occur over about 200 acres of land, or 0.2% of Forest managed lands in Lolo Creek.

The CDA salamander and western toad may be impacted by the project since decommissioning would occur at stream crossings, and in riparian or moist areas where suitable habitat for these species may occur. Noise and human activity may disturb a fisher but it would be of short duration and only during the daylight hours. Proposed activities therefore *May adversely Impact Individuals or their Habitats*, but is not likely to result in a loss of viability or cause a trend to federal listing to Coeur d' Alene salamander, western toad and fisher. Road decommissioning would create beneficial effects to sensitive species by reducing sedimentation and allowing natural vegetation and root systems to re-establish habitat on a once compacted surface. The new vegetation would offer habitat for invertebrate species: a food source for salamanders and toads. Recontoured road prisms would provide more contiguous habitat for fisher with less opportunity for human disturbance.

Roads currently open to vehicle use would be removed and access would be prevented which would eliminate direct wildlife disturbance and morality. Indirectly vegetation would be reestablished where roads previously existed and forests would grow in their place. The components necessary for quality wildlife habitat would eventually become available, including a diversity of tree and shrub species as well as snags and downed woody material. Design features would require the placement of large woody material on the decommissioned road surface in order to provide some habitat for species and to provide soil nutrients over time.

Wildlife cover habitat would be removed as a result of decommissioning and would not be available for about 20 years. This is about the length of time it would take for trees and vegetation to become tall enough to hide the larger species such as elk, deer, and moose. Forage would become available as roads become grown in, generally within 10 year for some species such as bears (Switalski, 2010). There would be ample habitat for wildlife to disperse into that lies directly adjacent to decommissioned roads.

The removal of roads would reduce easy access to some hunting and trapping areas. These activities would still occur along some of the decommissioned roads; however access could only be by foot or stock. Overall, the amount of human-wildlife interactions would decrease as a result of decommissioning.

Cumulative Effects

There would be minor negative and positive cumulative effects to wildlife when this project is combined with the additional 39 miles of road decommissioning proposed under the Lolo Insect and Disease project. The direct and indirect effects would be same as those described above over and additional 195 acres of land. When combined, the 80 miles of decommissioning would increase available wildlife habitat by 395 acres over time. It would reduce human-wildlife interactions by preventing vehicle access on these areas. Access by foot or stock would become more difficult which would also limit wildlife disturbance by humans.

CHAPTER 4. Regulatory Framework and Consistency

The Lolo First 50 Road Decommissioning Project analysis and documentation of effects is consistent with direction described below.

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 Lolo First 50 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.

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 according to the standards listed in Appendix K of the Forest Plan. The standards and desired conditions are based on instream sediment levels. The project would move towards meeting the desired conditions as potential sediment sources from roads 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 on fish and wildlife species, including Management Indicator and Sensitive Species. Decommissioned roads provide forested habitat over time and reduce road related sediment input to streams while maintaining access to harvestable timber stands in management areas designated for timber harvest. BMPs would be used to minimize effects to aquatic 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. Decommissioning returns stream channels to their natural size and shape and allows for the regrowth of forests around streams and across the landscape. Forests provide shade, large woody material and bank stability to streams. The project is therefore consistent with PACFISH.

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 Lolo Creek and tributaries as cold water aquatic life, salmonid spawning and secondary contact recreation (IDEQ, 2011). Current status for all uses is fully supported for Lolo Creek and the majority of its tributaries. The project would help to maintain the streams beneficial uses. Eldorado, Jim Brown, and Musselshell Creeks are listed as impaired for stream temperature. The project would help to maintain or improve stream temperature over time as roads are converted back to forest, particularly at stream crossings.

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 "**may effect, not likely to adversely affect**" steelhead or their designated critical habitat, bull trout, or Canada lynx. There would be "**no effect**" to fall chinook salmon. The project is "***not likely to jeopardize the continued existence*** of the wolverine. See the Biological Assessment in the project file.

National Historic Preservation Act of 1966, as amended

A heritage resource investigation was conducted. Any properties eligible or potentially eligible for listing in the National Register of Historic Places would be protected. One site was identified and any disturbance around it would be avoided.

Other Required Analysis

This is not a major Federal action. It will 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 will 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

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