

**DECISION NOTICE**  
**and**  
**FINDING OF NO SIGNIFICANT IMPACT**  
**RUBY COPPER ENVIRONMENTAL ASSESSMENT**

Bonners Ferry Ranger District  
Kaniksu Working Circle  
Idaho Panhandle National Forests  
USDA Forest Service  
Boundary County, Idaho

## **I. INTRODUCTION**

The Bonners Ferry Ranger District has completed an Environmental Assessment (EA) examining alternatives for vegetation management in the Ruby Copper assessment area. The Ruby Copper Project area boundary (Figure 1) encompasses approximately 12,700 acres located in the northeast corner of Boundary County, stretching from the Canadian border to the North, the Moyie River to the West, Copper Ridge to the East, and Ruby Ridge to the South. The area includes Sections (or portions of) 1-3, T64N, R2E; Sections 4-9, T64N, R3E; Sections 10-15, 23-26, 35, and 36, T65N, R2E; and Sections 7, 8, 17-20, and 28-33 T65N, R3E of the Boise Meridian, on the Bonners Ferry Ranger District of the Idaho Panhandle National Forests, Boundary County, Idaho.

## **II. THE DECISION**

This decision will implement all treatment units included in Alternative 2 as described in the Ruby Copper Environmental Assessment issued in July 2008, with the following modifications:

1. **Inclusion of Unit EP03** – Implementation of Unit EP03 includes a group selection treatment on 210 acres that will be accomplished with helicopter yarding. Fuels would be treated with an Underburn. Unit EP03 was analyzed under Alternative 3 and includes approximately 134 acres of dry forest old growth.
2. **Inclusion of Unit CS10** – Implementation of Unit CS10 includes an irregular shelterwood treatment on 317 acres that would be accomplished with helicopter yarding. Fuels would be treated with an underburn. This unit was also analyzed under Alternative 3.

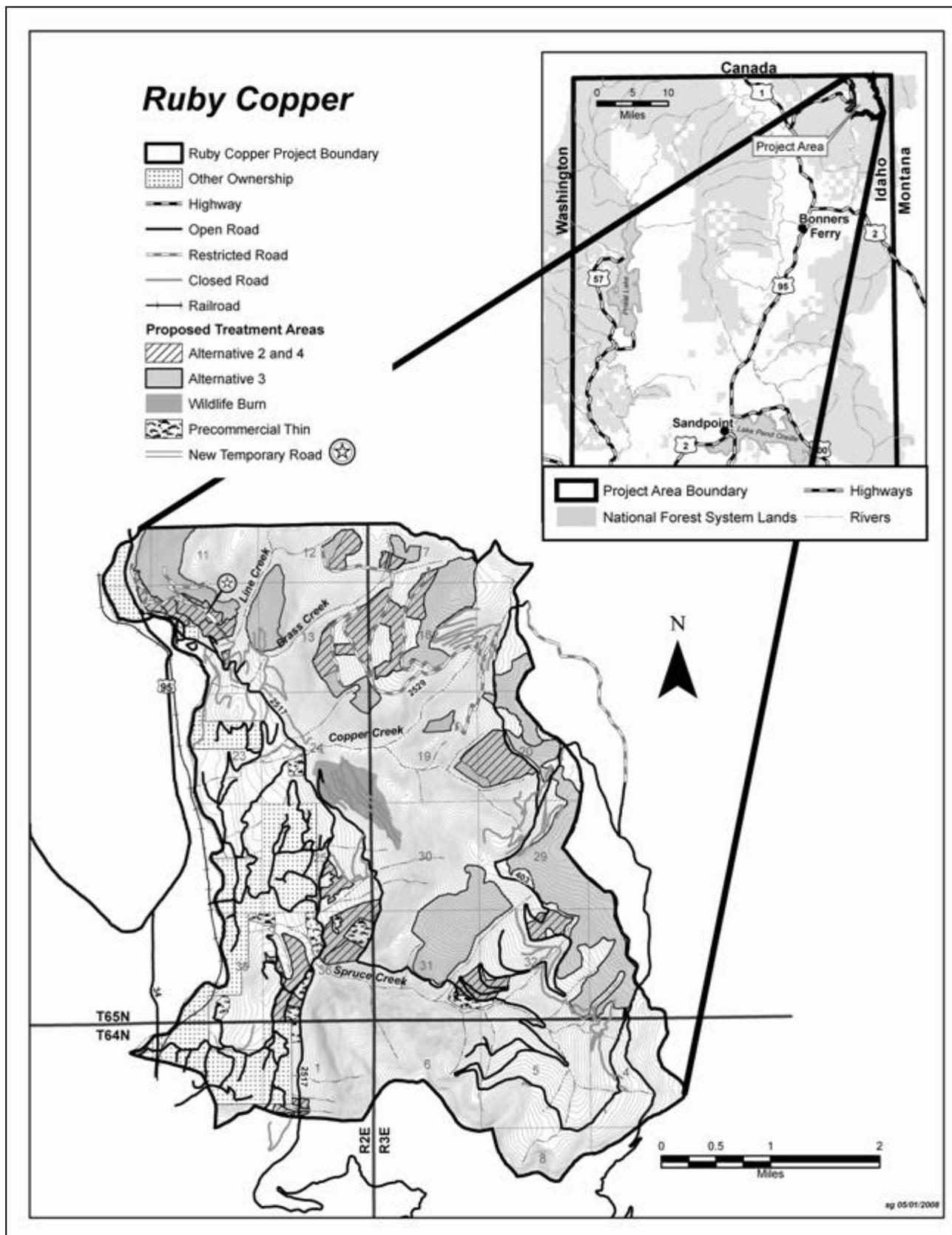
Implementing Alternative 2, with the modifications described above, will include an estimated 872 acres of irregular shelterwood prescriptions, 283 acres of group selection prescriptions, and 185 acres of commercial thinning. An estimated 812 acres of harvest related fuels will be treated with prescribed fire, 494 acres will be treated with grapple piling and the remaining 82 acres will be treated with whole-tree yarding. Alternative 2 also includes 48 acres of weed and release prescriptions, 181 acres of pre-commercial thinning, and a wildlife habitat burn on 182 acres. These vegetation treatments are designed to improve ecosystem composition, structure, and

diversity of the landscape by providing for tree species and stocking levels similar to historic levels, which will better resist insects, diseases, and wildfire. The amount of merchantable timber products removed will be a by-product of achieving the vegetation management objectives. A vegetation treatment summary is provided in Table 1.

**Table 1. Ruby Copper Treatment Summary – Alternative 2**

<b>Treatment Type</b>	<b>Acres</b>	<b>Treatment Units</b>
Irregular Shelterwood	872	CS01, CS03, CS05, CS07, CS10, CS11, CS14, CS16, CS18, CS19, KM28, KM29
Group Selection	283	EP01, EP02, EP03, EP06
Commercial Thin/Sanitation Salvage	185	CS12, CS13, CS21, EP04
<b>Total Acres Harvested</b>	<b>1,340</b>	
Weed and Release	48	EP05, EP07, EP08
PreCommercial Thin	181	See Map
Wildlife Habitat Burn	182	WLB
<b>Total Acres Vegetation Treatment</b>	<b>1,751</b>	
Underburn	812	CS03, CS07, CS10, CS19, EP01, EP02, EP03, EP05, EP07, EP08
Grapple pile	494	CS01, CS05, CS11, CS12, CS14, CS16, CS18, CS21, EP04, EP06, KM28, KM29
Whole Tree Yarding	82	CS13
<b>Total Acres Fuels Treatments</b>	<b>1,388</b>	

Figure 1. Proposed Project Area Boundary



## **A. RATIONALE FOR THE DECISION**

I have decided to implement Alternative 2 as defined in the July EA in combination with the modifications as described above. The discussion that follows reflects the implementation of Alternative 2 in its entirety. I used the following evaluation criteria in my decision-making process:

- How each alternative meets the purpose and need for action as described in Chapter 1 of the Environmental Assessment.
- How the alternative provides consistency with the Forest Plan.
- How well the alternative responds to environmental issues identified by the public, other agencies, and the Forest Service.

The following is a discussion of my rationale for the decision based on these criteria:

### **1) Purpose and Need for Action**

The purpose and need for the Ruby Copper project were derived from the assessments described in the EA in the section “Overview of Scientific Findings”, and from field reviews and surveys of the resources in the Ruby Copper project area. Based on this information the purpose and need, or objectives, for entering the Ruby Copper project area are to:

1. Improve ecosystem composition and structure and landscape diversity by providing for tree species, stocking levels, and landscape patterns that better resist insects, diseases, and wildfire, and that wildlife are adapted to. Additionally, in the lower elevations of the project area there are also opportunities to improve structure and composition of dry forest types. More specifically through the project we plan to:
  - Create diversity of forest structures in the area, including larger patch sizes with less fragmentation
  - Reduce the acreage of mature and over-mature lodgepole pine stands that are considered high-risk for mountain pine beetle attacks
  - Provide for tree species and stocking levels on dry forest types that better resist insects, diseases, and wildfire
  - Increase the acreage of stands where western white pine is a significant component

Discussion: Prescribed treatments included under Alternative 2 and the modifications will trend treated stands toward more open grown stands of large-diameter ponderosa pine and western larch. Where forest openings are created, regeneration will feature ponderosa pine, western larch, and white pine.

2. Restore normal slope hydrology where it has been altered and improve aesthetic values of the project area. In order to do this the project will seek to:
  - Enhance the visual quality of existing even-aged regeneration stands and identify recreational opportunities

- Improve road conditions and stream habitat/structure throughout the project area
- Maintain and improve/broaden viewpoints and viewing areas from lookouts and other high profile viewpoints
- Maintain and improve aquatic habitat and watershed health by reducing existing and potential sediment sources (i.e. roads, skid trails, culverts, etc.)
- Maintain and improve aquatic temperature regimes (i.e. the most favorable aquatic temperature for fish habitat) by reducing features that elevate both aquatic and groundwater temperatures

Discussion: Alternative 2, as modified, proposes 17 miles of road reconditioning, 9 miles of road reconstruction, 6 miles of road storage, and 27 miles of road decommissioning. Implementation of this alternative will reduce overall road densities within the project area which, over time, will result in a reduction of sediment to streams from roads. The treatment units, as proposed, have been designed to meet visual quality objectives (VQO).

3. Enhance wildlife habitat for a range of species, focusing on creating increased foraging habitat for the Canada lynx. In this project we seek to:
  - Create and maintain vegetation that will provide forage, shelter, and habitat for snowshoe hare, and will meet long-term forage needs for Canada lynx

Discussion: Prescribed treatments included under the selected alternative have been designed to maintain a complex pattern of forest types and age classes across the landscape to encourage biodiversity and emulate historic disturbance patterns. Openings created through regeneration treatments will provide forage and habitat for snowshoe hare.

The decision to include Unit EP03 in the selected alternative was based on meeting the identified purpose and need for improving composition and structure of dry forest types within the project area. Unit EP03 is composed of a dry forest composition with mature forest structures and contains approximately 134 acres of allocated old growth. Treatments in this unit were designed to restore the historic integrity of this type of old growth through retention of all ponderosa pine, western larch, and Douglas-fir, larger than 20 inches dbh and other large diameter trees that are contributing to the old growth character of the stand. These larger diameter trees represent most of the trees that survived several fire intervals. In terms of trees that will be harvested the focus will be on the smaller diameter trees. Franklin and others (2007) stated that a sustainable future condition in dry mixed-conifer forest sites could be developed by silvicultural restoration to a less dense fire- and insect-resistant condition. This could be done by removing many of the smaller trees, primarily by logging since fuel loadings are too high in many places to allow for re-introduction of fire (EA p. 4-14). As stated in the EA (p. 4-15), it is estimated that 95% of the trees designated for harvest would be less than 14" dbh (diameter at breast height). The implementation of this treatment will result in not net loss of old growth and the Idaho Panhandle National Forests current allocation would be maintained.

Figures 2, 3, and 4 provide Forest Vegetation Simulations (FVS) of a typical dry forest stand under different scenarios. Figure 2 represents how a fire would burn during hot and dry conditions under a no treatment scenario. Under such a scenario FVS projects that more than

half of the trees would be killed, including most of the larger diameter old growth trees. Figure 3 depicts a typical target stand scenario and Figure 4 represents how this target stand would burn under the same fire weather conditions depicted in Figure 2. Figure 4 shows that even under hot and dry conditions fire behavior would be modified considerably given the anticipated changes in stand structure, resulting in very little within stand mortality.

Unit CS10 consists of 317 acres of mature forest structure dominated by mature lodgepole pine. The decision to include this unit in the selected alternative was based on meeting the purpose and need of reducing the acres of mature and over-mature lodgepole stands that are considered high risk for mountain pine beetle attack. Including CS10 in the decision also provides the opportunity to create diversity of forest structure by including larger patch sizes. To meet these objectives an irregular shelterwood prescription would be implemented focusing on the removal of the high-risk lodgepole pine component and other trees less than 12" dbh. The residual stand will be underburned and will include a mixture of species (e.g., western larch, Douglas-fir, subalpine fir, Engelmann spruce, western hemlock, and western white pine). Considerable mortality is anticipated in the smaller larch and Douglas-fir and most of the other species that are not fire resistant. The resulting stand is expected to provide considerable vertical diversity in terms of live and dead trees (snags). Figure 5 provides an FVS projection of how this treatment is expected to look on the landscape.

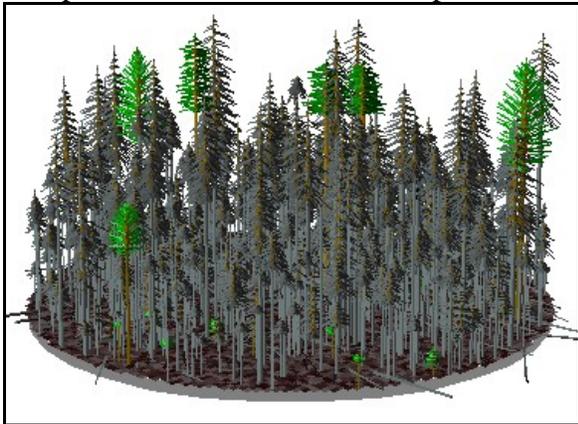


Figure 2

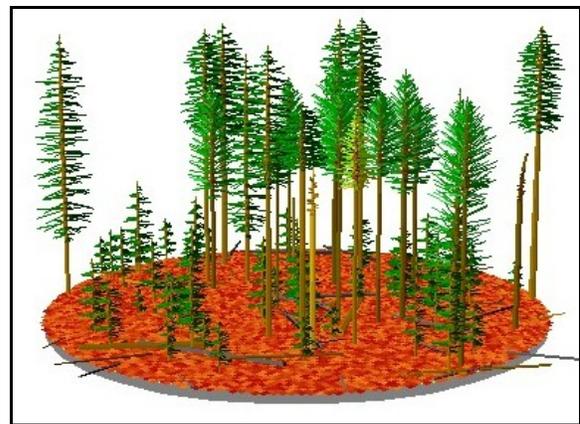


Figure 3



Figure 4

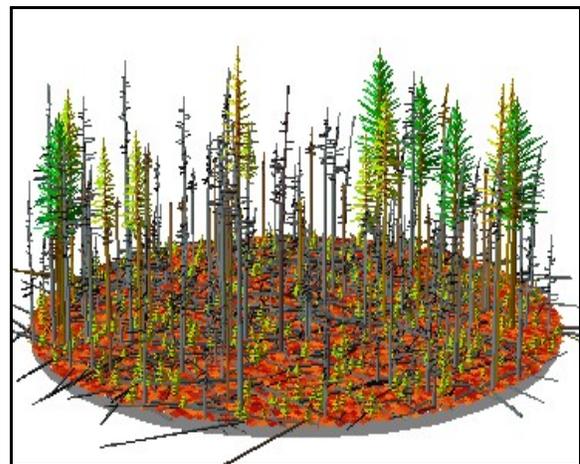


Figure 5

## 2) Consistency with the Forest Plan

The IPNF Forest Plan provides direction for all resource management programs and resource activities on the IPNF. Some of the directions that apply specifically to the vegetation resources within the Ruby Copper Project Area are listed below:

- Provide for a diversity of plant and animal communities.
- Provide efficient fire protection and fire use to help accomplish land management objectives.
- Manage the forest resources to protect against insect and disease damage.
- Vegetation management activities will be the primary process used to minimize the hazards of insects and diseases and will be accomplished primarily by maintaining stand vigor and diversity of plant communities and tree species.

Discussion: As described in the EA (Chapter 3, pages 3-5 to 3-10, and 3-13 to 3-15) long-lived seral species, ponderosa pine, western larch and white pine have been replaced by Douglas-fir, grand fir, western hemlock, and western red cedar, species that are less resistant to fire and more prone to insect and disease occurrences. Prescribed treatments will begin restoration of more open grown stands of long-lived seral species that are more resistant to stand-replacing fires and insect and disease occurrence. Vegetation management will be the tool used to meet these objectives.

There are many Forest Plan Standards that are applicable to the general design of the proposed action. Specific Forest Plan Standards (USDA 1987, pp. II-32-34, II-38-39) that apply to vegetation resources are listed below:

- Reforestation will normally feature seral tree species, with a mixture of species usually present. Silvicultural practices will promote stand structure and species mix that reduce susceptibility to insect and disease damage.
- Project design will provide for site preparation and slash hazard reduction practices that meet reforestation needs of the area.
- Encourage utilization of forest products to reduce biomass, which must be disposed of otherwise.
- Activity fuels will be treated to reduce their potential rate of spread and fire intensity so the planned initial attack organization can meet initial attack objectives.
- Vegetation management [through fire] will favor the use of fire, hand treatment, natural control, or mechanical methods whenever feasible and cost effective. Direct control methods, such as chemical or mechanical, may be used when other methods are inadequate to achieve control.

Discussion: Both uneven-aged (group selection) and even-aged (irregular shelterwood) regeneration systems will be prescribed. Group selection prescriptions will create forest openings on approximately 283 acres of the treated area and irregular shelterwood prescriptions will create openings on 872 acres of the treatment area. Seral species will be retained in the overstory and regenerated in created openings. Both prescribed fire and grapple piling will be implemented for fuels reduction and site prep. These treatments will

improve conditions for natural and artificial regeneration, while reducing the potential of severe fire. The timber sale contract will include provisions to remove non-sawlog volume, which will improve utilization.

Several Forest Plan standards specifically apply to old growth (USDA 1987, pp. II-29).

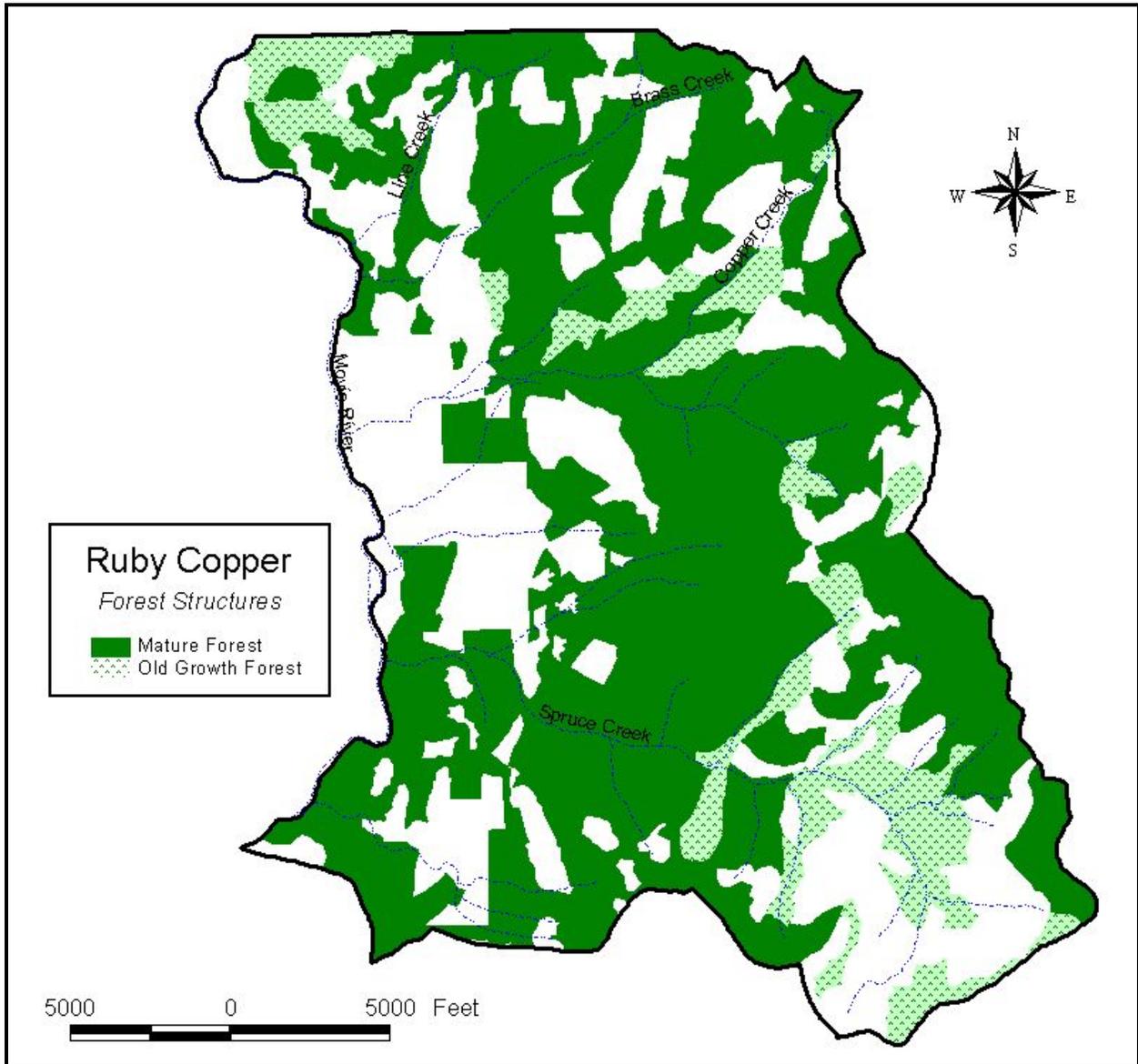
Discussion: Alternative 2, as modified, is compliant with all Forest Plan standards applicable to old growth (EA 4-23). Unit EP03 includes 134 acres of dry forest old growth. A group selection prescription in this unit has been designed to maintain the old growth structure and composition. Multiple age classes will be retained, in particular any old growth ponderosa pine, western larch, and Douglas-fir.

In addition to maintaining approximately 11% allocated old growth the project area (OGMU 26), another 57% of the area is composed mature forest structures. Figure 6 displays the connectivity of these forest structures.

### **3) Environmental Issues**

The following issues were used to develop the action alternatives. These issues were identified through the scoping process, both internally and externally. The effects on each resource issue were evaluated based on a set of “Issues and Indicators.” The “Other Resource Concerns” listed in Chapter 2 (Section 2.4, p. 2-8) of the EA were treated by changing the design of the alternatives, or by avoiding areas. They did not warrant development of a separate alternative. These “Other Resource Concerns” are discussed in Appendix A of the EA.

Figure 6 – Mature and Old Growth Forests



## a. Vegetation

The North Zone Geographic Assessment (NZGA) defines approximately two-thirds of the forests in the Ruby Copper project area as “Low Integrity/High Risk Landscapes”. These landscapes have changed the most across the North Zone from historic conditions due to major losses of long-lived seral species (ponderosa pine, western larch, and western white pine). Forests within these landscapes are dominated by late seral, shade tolerant, drought and fire intolerant species on upland (non-riparian) sites (grand fir, western hemlock, western red cedar), and/or short lived early seral species (lodgepole pine, Douglas-fir) approaching the end of their life span. These landscapes are the most heavily altered from historic conditions and contain the greatest need and opportunity for large-scale forest vegetation restoration.

Within these Low Integrity/High Risk landscapes in the Ruby Copper project area is a mix of both dry and moist forest types that burned in large, lethal fires in the late 1800’s. Following these fires, the landscape was regenerated primarily by lodgepole pine, a shorter-lived seral species than longer-lived seral species, such as western larch, white pine, and ponderosa pine. The lodgepole pine within the Ruby Copper landscapes has reached maturity and approximately 25% of the landscape is currently considered moderate to high hazard<sup>1</sup> for mountain pine beetle attack. In addition to an increased susceptibility to mountain pine beetle attack, overmature lodgepole pine stands have high susceptibility to dwarf mistletoe and windthrow (Schmidt and Alexander 1984). Although mistletoe is typically not a concern in lodgepole stands in the project area, windthrow is a concern. These factors contribute to an increase in fuel load and consequently an increase in fire hazard. Combined with increased mountain pine beetle activity, these factors could contribute to a lethal fire with the potential to spread to connected landscapes.

Significant changes have occurred in dry forest types within the Low Integrity/High Risk landscapes. Prior to the 20th century, many stands in these forest types were burned frequently by low- or mixed- severity fire; occasional stand-replacing fire occurred as well. Where fires occurred at relatively short intervals (less than 25 years), they were mostly non-lethal. All-aged structures were produced by non-lethal fire regimes, and even-age structures were produced by fire regimes with a combination of non-lethal fire and severe fire (Smith and Fischer 1997). The loss of important long-lived seral species, as well as an increase in fire risk, supports the NZGA Low Integrity/High Risk classification of the forest types that occupy a majority of the landscape within the project area.

The remaining one-third of the forests within the project area (a relatively narrow strip along the Eastern edge of the project area) is defined as “Relatively Good Integrity” by the NZGA. Across the North Zone, these forests contain subalpine fir habitat types that have not suffered major losses in early seral species and exhibit a mature forest structure that has remained relatively intact. The majority of these forest types within the Ruby Copper project area are characterized by cool-moist and cold-dry site conditions with highly variable fire return intervals. The concern in these areas is that more than 75% of the forest types are comprised of either mature or old growth forests. As Smith and Fischer (1997) discussed, variety in stand structure and fuels, created historically by mixed-severity and occasional severe fire has probably decreased. Given

---

<sup>1</sup> Hazard is defined as the ability of a stand to support a growing population of mountain pine beetles (Randall and Tensmeyer 1999).

the adjacency of these forests to “Low Integrity/High Risk” landscapes, and the relatively homogeneous structure of these subalpine forests, maintenance of such a high percentage of mature and old growth forest is somewhat doubtful as the potential for stand-replacing fire increases through time.

The issue indicators in Table 2 were used to evaluate direct, indirect, and cumulative effects of different vegetation management alternatives.

**Table 2. Principle Issues and Indicators: Forest Vegetation**

<b>Principle Issue</b>	<b>Principle Issue Indicators</b>
Insects and Disease	Acres trended toward reduced risk of mountain pine beetle and Douglas-fir beetle. Given the abundance of mature Douglas-fir and lodgepole pine forests, and valuable old growth ponderosa pine components, susceptibility to bark beetle attacks is a concern.  Given the dominance of species (Douglas-fir, grand fir, and subalpine fir) on the landscape that are susceptible to root diseases, changes in root disease risk is an important indicator of ecosystem health. Controlling root disease damage would be measured through acres converted to long-lived seral species.
Forest Composition	Acres trended towards restoration of long-lived seral species; i.e., ponderosa pine, western larch and western white pine.
Forest Structure	Acres trended towards restoration of historic forest structures. Historically, forest structures provided a diversity of species and stocking levels that could better resist insects, disease, and wildfire. Dense stands of immature Douglas-fir and mature lodgepole pine now dominate the landscape.

## **b. Wildlife**

The distribution and abundance of wildlife is primarily a function of habitat conditions (i.e., vegetation type and successional stage). These conditions reflect inherent potential (i.e., capable habitat) and current ability (i.e., suitable habitat) of a site to provide essential habitat requirements for a given species as well as disturbance types (i.e., fire, windthrow, landslide, and insect outbreaks) and frequencies. Fire suppression and timber harvest have been the predominant factors affecting habitats in the project area.

A list of threatened, endangered, Forest Service sensitive species, MIS, and other species and habitats of special interest were developed from the Forest Service Region 1 list and from known species occurrence on the Bonners Ferry Ranger District. The species list was reviewed to determine each species’ relevance to the Ruby Copper project, based on known species distribution and habitat availability. The species (or their habitats) that were analyzed in detail are listed below in Table 3:

**Table 3. Effects of Selected Alternative on Relevant Wildlife Species**

Relevant Species	Effects of Selected Alternative
Canada lynx	Increase in acres currently in the stand initiation structural stage (662); Increased habitat regenerated in previous 10 years (3.2%); 260 acres even-aged regeneration harvest in denning habitat; denning habitat abundant and well-distributed in LAU; No multi-story mature stands would be affected
Grizzly bear	Inconsequential decrease in linear road densities
Black-backed woodpecker	Loss of <2% of available habitat (insect-infested stands) on the District; long-term increase in large snags; 182-acre wildlife burn would increase foraging habitat.
Flammulated owl/Pygmy nuthatch/Fringed myotis	Approximately 280 acres of currently unsuitable habitat trended toward suitable condition, 30 acres of even-aged regeneration in capable habitat. Establishment within 5-10 years of >350 acres of contiguous suitable habitat
Fisher/Marten	Reduction of 8% suitable denning habitat. Short-term change to <i>moderate quality</i> subdrainage status. Habitat maintained on a landscape scale
Western toad	No impacts to breeding habitat; slight chance of direct mortality from logging activities in upland habitats
Northern goshawk	Temporary reduction of 125 acres of suitable nesting habitat but short term losses offset by long term habitat stability.
Pileated woodpecker	Reduction of up to 8% of suitable nesting habitat but a long-term trend toward increased habitat quality; maintenance of all 7 hypothetical home ranges
Forest Land Birds	No effect on forest land birds associated with riparian habitats; long-term trend toward increased habitat quality for dry-forest species.

### c. Aquatics

The goal is to maintain and improve the aquatic ecosystems in the Line Creek, Brass Creek, Copper Creek, Spruce Creek, and Moyie River (Idaho) watersheds while improving vegetative composition in these drainages. Specifically, this will involve restoring normal slope hydrology and riparian function where it has been altered by roads and road crossings. Table 4 contains the indicators that would be used to measure the response and expected changes to the watershed and fisheries resources related to this project.

**Table 4. Principle Issues and Indicators: Watershed and Fisheries**

Principle Issue	Principle Issue Indicators
Hydrologic Function	Total road densities and road densities within 100 and 300 feet of streams by watershed (miles per square mile).
Riparian Function	Riparian road density (miles per square mile) and number of improved or removed at-risk stream crossings.
Soil Erosion And Mass Wasting	Percent of ground with detrimentally impacted soils modeled erosion and sediment delivery estimates (tons per acre).
Water Yield	Percent increase over mean annual water yield and percent increase over mean peak flow
Bull trout and westslope cutthroat trout	Changes in the quality of stream habitat (e.g. sediment yield, water yield, large woody debris, water temperature)

### **III. OTHER ALTERNATIVES CONSIDERED**

#### **A. NO ACTION**

The no action alternative is required by NEPA and NFMA. Implementation of this alternative would defer all treatment activities at this time. Other activities such as fire suppression and routine road maintenance would continue. Under the no action alternative none of the proposed road treatments would occur. No silvicultural treatments, prescribed burning, or other mechanical treatments would be implemented to restore vegetative composition and structure, improve wildlife habitat, or maintain hydrologic function. Stands would naturally thin themselves out as the competition for water and soil nutrients continues and natural fuels would continue to build up with continued fire suppression, leading to increased risk of stand replacing fire over time.

#### **B. REASONS FOR DISMISSING THE NO-ACTION ALTERNATIVE**

As stated earlier, the NZGA defines most of the forests in the Ruby Copper project area as “Low Integrity/High Risk Landscapes.” These landscapes have changed the most from historic conditions across the North Zone due to major losses of long-lived seral species (ponderosa pine, western larch, and western white pine). These landscapes are the most heavily altered from historic conditions and contain the greatest need and opportunity for large-scale forest vegetation restoration. The no action alternative would not meet the stated purpose and need and would continue to trend these forests in a direction where the ability to meet desired forest composition and structure objectives would be increasingly difficult.

#### **C. ALTERNATIVE 3**

Alternative 3 maximizes vegetation treatments across the landscape to address vegetation issues such as over-mature lodgepole stands susceptible to mountain pine beetle and the loss of long-lived seral species such as white pine and western larch. Treatments are similar to Alternative 2, but involve larger and more extensive treatment areas. Even-aged regeneration methods, such as irregular shelterwood (1,471 acres) and seed tree (96 acres) prescriptions would be the primary silvicultural treatments throughout the project area. Group selection prescriptions would be implemented on 807 acres and intermediate treatments on another 317 acres. These intermediate treatments would include commercial thinning and sanitation (88 acres), weed and release (48 acres) and pre-commercial thinning (181 acres). Total vegetation treatments would be approximately 2,870 acres.

Alternative 3 would include an estimated 204 acres of entry into allocated old growth. This would include 134 acres in dry forest old growth (Unit EP03), 51 acres in cold dry forest old growth (Unit CS09), and 19 acres in cool moist forest old growth (Unit CS20). For more detailed information regarding treatments in allocated old growth please refer to Chapter 4, page 4-23.

To improve road conditions and allow access to treatment areas, Alternative 3 would include 24 miles of road reconditioning and 10 miles of road reconstruction.

#### **D. REASONS FOR DISMISSING ALTERNATIVE 3**

Alternative 3 meets the objectives of the Ruby Copper EA by restoring forest composition and structure and significantly reducing the amount of mature, high-risk lodgepole pine stands. This alternative represents the most aggressive approach to addressing insect and disease concerns within the project area, through conversion of more than 1,800 acres to long-lived seral species. The acres treated for mountain pine beetle (1,400 acres) and Douglas-fir beetle (1,800 acres), are almost double the acres treated in Alternative 2 and Alternative 4 (EA 4-20).

However, implementing Alternative 3 would require utilization of helicopter yarding on approximately 1,560 acres. Due to poor lumber market conditions and high fuels costs in the current economy, using helicopter yarding to accomplish treatments over such a large area would not be feasible. The economical analysis for Ruby Copper found that Alternative 3 was not economically viable (EA A-17).

It is my determination that Alternative 2 would provide for better integration of the issues identified in the Ruby Copper EA, while still remaining economically viable.

#### **E. ALTERNATIVE 4**

Alternative 4 was designed, in response to public scoping comments, as a modification of Alternative 2 to specifically address forest canopy opening issues, while meeting the objectives for restoration of long-lived seral species. In proposed units with forest compositions that contained less than 50% lodgepole pine, silvicultural prescriptions were changed from irregular shelterwood to group selection and intermediate treatments. Based on our silvicultural diagnosis, only regeneration prescriptions in stands composed of greater than 50% mature lodgepole would meet the purpose and need of the project. These changes in prescription, which would result in considerably less forest canopy removal, would maintain more mature forest structure in the short-term, and minimize even-aged regeneration harvest. Compared to Alternative 2, shelterwood treatments would decrease to 157 acres (from 555 acres), group selection treatments would increase to 425 acres (from 73 acres), and commercial thinning and sanitation treatments would increase to 231 acres (from 184 acres). All other vegetation treatments (i.e., pre-commercial thinning, weed and release, wildlife habitat burning) and would be the same as Alternative 2. Road treatments (reconditioning and reconstruction) would also be the same as Alternative 2.

#### **F. REASONS FOR DISMISSING ALTERNATIVE 4**

Alternative 4 meets the objectives of the Ruby Copper EA by restoring forest composition and structure and improving landscape diversity. However, Alternative 4 represents the least amount of acres treated for insect and disease (EA 4-20). For root disease concerns, Alternative 4 would regenerate an estimated 300 acres with long-lived seral species, compared to Alternative 2 which would regenerate nearly 600 acres. Alternatives 2 and 4 would both treat an estimated 520 acres of stands that are considered high or moderate hazard for mountain pine beetle and another 725 acres that are high or moderate hazard for Douglas-fir beetle. The difference is the amount of acres that would be regenerated with long-lived seral species. Alternative 4 would only

regenerate approximately 15 acres that are considered high or moderate mountain pine beetle hazard, whereas Alternative 2 would regenerate 440 acres. For high or moderate hazard Douglas fir beetle stands, Alternative 4 would only regenerate 15 acres while Alternative 2 would regenerate 500 acres (EA 4-21).

In terms of water quality, all action alternatives would produce approximately the same project implementation sediment to streams from road management activity (EA 4-85).

It is my determination that Alternative 2 would provide for better integration of the issues and more closely meet the purpose and need identified in the Ruby Copper EA.

## **IV. Findings and Consistency with Laws, Regulations and Policies**

### **A. NATIONAL FOREST MANAGEMENT ACT**

The following discussions with respect to Alternative 2 reflect the treatments *included* under this decision. Those included treatment units are consistent with NFMA requirements:

- *Maintaining diversity*: Alternative 2 is designed to be implemented in a manner that will protect wildlife and fisheries resources in the Ruby Copper project area (EA, Chapter 4, and Appendix B). There will be no significant impact to any species, and no loss of viability to populations or species. The long-term benefits will outweigh the short-term disturbance to species during project activities.
- *Suitability for timber production (16 USC 1605[k])*: Harvest will not occur on sites identified as not suitable for timber production (EA 1-11).
- *Stands of trees are harvested according to requirements for culmination of mean annual increment (CMAI) of growth (16 USC 1604(m))*: Prescriptions written for this project will implement sound silvicultural practices including shelterwood, group selection, and commercial thinning harvests that have been approved by a certified silviculturist (EA Chapter 2). These prescriptions are driven by resource objectives and desired conditions other than timber production, i.e., CMAI.
- *Soil, slope or other watershed conditions (16 USC 1605[g][3][E][i] and protection for streams and other bodies of water (16 USC 1604[g][3][E][iii])*: Features of the selected alternative described in this decision and the environmental assessment will ensure that soil, water, and watershed resources will be protected (Chapter 2, pages 2-34 to 2-37). Soil surveys were conducted by the IPNF Forest Soils Scientist and other Forest Service personnel to evaluate existing soil conditions (results are part of the Ruby Copper project file).
- *Restocking (16 USC 1605[g][3][E][ii])*: Technology and professional knowledge were applied to assure that adequate stocking will occur within five years after final harvest (Chapter 4, page 4-27).

- *Economic factors (16 USC 1605[g][3][E][iv]):* Management practices were governed by ecosystem restoration objectives not strictly economics. Three action alternatives were studied in detail that would produce considerably different outcomes in terms of economic efficiency. Alternative 2 produces the higher economic return, while alternative 4 breaks even. Alternative 1 would generate no costs or revenue, and alternative 3 was determined to not be economically viable. Alternative 2 addresses the resource issues identified in the EA, while also remaining economically viable (EA Appendix A-17)
- *Clearcutting and even-aged management (16 USC 1605[g][3][F]):* Even-aged management (irregular shelterwood harvest) would occur on 872 acres (Units CS01, CS03, CS05, CS07, CS10, CS11, CS14, CS16, CS18, CS19, KM28, and KM29) under Alternative 2. These treatments meet the appropriate timber management standards and vegetation management objectives outlined in the Forest Plan. Ten units will exceed the 40-acre opening size (CS01, CS03, CS05, CS07, CS10, CS11, CS14, CS16, CS18 and CS19). Design of treatments included features to protect water, soils, and fisheries (EA 4-12 to 4-17).
- *Temporary roadways (16 USC 1608[b]) and standards of roadway construction (16 USC 1608[c]):* NFMA requires that the necessity of roads be documented and that road construction be designed to standards appropriate for the intended uses, considering safety, cost of transportation, and impacts on land and resources (16 USC 1608). The Roads Analysis Process (RAP) was used to identify the condition of and recommendations for each road system in the project area (project file). Chapter 2 of the EA (Table 2-8; Table 2-10; Table 2-11; Figure 2-5; P. 2-26, and p. 2-34) provides documentation with respect to proposed road treatments.

NFMA also requires that roads are planned and designed to re-establish vegetation cover on the disturbed areas within a reasonable period of time, not to exceed 10 years unless the road is determined necessary as a permanent addition to the National Forest Transportation System (16 USC 1604, Sec. 8). No new permanent roads, and 0.5 miles of temporary roads, are planned with this project. The temporary road will be decommissioned following project implementation activities (EA 2-18, 4-88).

- *Consideration of best available science (36CFR219.35(a)):* The need to employ the best science is not new, since agency decisions have always required a sound technical basis. What constitutes best available science might vary over time and across scientific disciplines. The Ruby Copper project file demonstrates a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgement of incomplete or unavailable information, scientific uncertainty and risk, as appropriate. The EA also includes 21 pages of scientific literature citations that were used to support the analysis (See EA Literature Cited).

## **B. IPNF (1987) FOREST PLAN**

I have evaluated the alternatives and compared them to the Forest Plan standards, goals and objectives within the Ruby Copper Project Area. I have determined that the selected alternative will meet the Forest Plan standards and will contribute to meeting the goals and objectives of the Management Areas within the Ruby Copper project area. The selected alternative is consistent with Inland Native Fish Strategy standards and guidelines.

### **C. CLEAN WATER ACT**

Alternative 2 is consistent with the requirements of the Clean Water Act (33 USC 1251). Sediment and water temperature, the pollutants of concern, will not permanently increase in the waters of the Ruby Copper Project. These pollutants to water quality will be prevented through implementation of BMPs and Forest Plan Standards and Guidelines. Risks to beneficial uses will not be changed by this project. There will be no detrimental increase in sediment or stream temperature through management activities in the Ruby Copper Project Area.

By following site specific BMPs, INFISH guidelines, and RHCA buffers, there will be no detrimental cumulative effects to the streams, or net increase in siltation, suspended solids, or thermal changes, thus no violation to the TMDL regulations or Clean Water Act (EA. p. 4-92 through 4-99).

### **D. CLEAN AIR ACT**

The Idaho Panhandle National Forests is a member of the Montana/Idaho Airshed Group, which is composed of members who conduct a “major” amount of prescribed burning and the regulatory and health agencies that regulate this burning. The intent of the Airshed Group is to minimize or prevent smoke impacts while using fire to accomplish land management objectives and/or fuel hazard reduction (EA 2-33, Appendix A-20 to A-21). The monitoring unit of the Montana/Idaho Airshed Group coordinates burning and smoke emissions to minimize smoke accumulation and provides smoke dispersion forecasts and air quality monitoring support for burners in the Airshed Group. Daily during the burning season, burners post proposed burns before 11:00 am; the monitoring unit considers proposed burns together with expected ventilation or smoke dispersion conditions and existing air quality to determine burn recommendations for the following day (with concurrence from the Idaho Department of Environmental Quality). These procedures limit smoke accumulations to legal, acceptable limits. The District strictly complies with these procedures, and has had no air quality violations. Alternative 2 is consistent with Forest Plan air quality standards.

### **E. NATIONAL HISTORIC PRESERVATION ACT**

Currently, there are no known districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places that will be affected by the selected alternative. As such, the actions should not cause the loss or destruction of significant scientific, cultural, or historic resources (EA A-17).

### **F. ENDANGERED SPECIES ACT**

It was determined that the proposed actions would not adversely affect any Threatened, Endangered or candidate wildlife, fish, or plant species or critical habitat which may occur in the area (EA A-1 to A-2, B-1 to B-5). Complete Biological Assessments are located within the project file.

On April 9, 2008 the U.S. Fish and Wildlife Service provided the Bonners Ferry Ranger District with an updated listing of threatened and endangered species that may be present within the evaluation area (FWS Ref. #1-9-08-SP-0067). Changes from the previous list include: the gray wolf (*Canis lupus*) had been delisted, effective March 28, 2008 (73 FR 10514); the slender moonwort (*Botrychium lineare*) has been removed from candidate status (72 FR 69047); and revised critical habitat for Canada lynx (*Lynx canadensis*) has been proposed (73 FR 10860). However, on July 18, 2008, the U.S. Federal District Court in Missoula, Montana, issued an order immediately reinstating Endangered Species Act protections for wolves in the northern Rocky Mountains. In September 2008, the Service requested the court vacate and remand the final delisting rule back to the Service. The court granted the Service's request on October 13, 2008. It was determined that the Ruby Copper project would have *no effect* on gray wolf. Slender moonwort is addressed as a Sensitive species, and although the proposed actions *may impact individuals or habitat*, they *will not likely contribute to a trend toward federal listing or loss of viability to the population or species*. A portion of the Ruby Copper project area is within proposed Canada lynx critical habitat. The U.S. Fish and Wildlife Service concurred with the Forest Service determination that the project *may affect*, but was *not likely to adversely affect*, Canada lynx critical habitat.

#### **G. MIGRATORY BIRD TREATY ACT**

The analysis included in the EA determined that Alternative 2, "May impact individuals and habitat, but would not likely indicate a local or regional change in habitat quality or population status" (EA B-1 through B-3).

#### **H. SAFE DRINKING WATER ACT AND AMENDMENTS OF 1996 (INCLUDING STATE OF IDAHO IMPLEMENTATION)**

Alternative 2 is consistent with the requirements of the Safe Drinking Water Act and Amendments of 1996. BMP's were developed from protection measures recommended from this assessment along with site specific BMP's (Appendix C).

#### **I. IDAHO FOREST PRACTICES ACT**

No municipal watersheds are within the effects area of the Ruby Copper project area. Proposed activities are away from water sources used for domestic purposes. BMPs or Soil and Water Conservation Practices (Chapter 2 "Design Criteria" and Appendix C) will be applied under Alternative 2 and all activities are in compliance with the guidelines in the Soil and Water Conservation Handbook.

#### **J. EXECUTIVE ORDER 12962 – RECREATIONAL FISHING**

Alternative 2 is consistent with this executive order regarding aquatic systems and recreational fisheries (EA 4-99).

#### **K. STATE OF IDAHO GOVERNOR'S BULL TROUT PLAN**

Alternative 2 is consistent with the direction in the Governor's Bull Trout Plan (EA 4-99).

#### **L. ROADLESS AREA CONSERVATION RULE, INTERIM DIRECTIVES NO. 7710-2001-2 AND NO. 2400-2001-3, AND WILDERNESS ACT OF 1964**

Activities under Alternative 2 are consistent with these mandates. There are no roadless or wilderness areas within or adjacent to the Ruby Copper project area (EA A-18).

#### **M. ENVIRONMENTAL JUSTICE ACT**

Alternative 2 was assessed to determine whether it would disproportionately impact minority or low-income populations, in accordance with Executive Order 12898. No impacts to minority or low-income populations were identified during scoping or any other portion of public involvement during the course of this analysis (EA, p. A-18). Based on this, Alternative 2 complies with Executive Order 12898.

### **V. FINDING OF NO SIGNIFICANT ACTION**

The direct, indirect and cumulative effects of the proposed actions have been reviewed as documented in this Decision Notice, the Environmental Assessment, and the project file. The setting of these proposals is in a localized area, with implications only for landscape, drainages and stands within the analysis area. Consideration of the proposed action is based on their impacts to the ecosystem, local communities, county, and at the effected resource level. They do not have any large or lasting effects on the society as a whole, the nation, or the state. Based on this review, it has been determined that there are no significant impacts on the physical, biological, or social portions of the human environment. The selected alternative is consistent with management objectives, standards and guidelines established for the Ruby Copper project area and the Idaho Panhandle National Forests.

#### **A. SIGNIFICANT IMPACTS (BOTH BENEFICIAL AND ADVERSE)**

Effects associated with the selected alternative are discussed in Chapters 2 and 4 of the Ruby Copper EA. These impacts are within the range of those identified within the Forest Plan. The actions will not have significant effects on other resources identified and described within Appendix A and the project file. Activities will result in temporary and low impact effects. Harvesting and log hauling activities will increase traffic on Forest Service and on County roads, which are the primary access roads into the project area. Precautionary signings will provide for safety and information in areas of activities.

No significant increase in water yields or sedimentation in the analysis area streams is expected, and State water quality guidelines will be met. Implementation of Inland Fish Strategy (INFISH)

standards and guidelines will protect stream courses from sedimentation (EA 2-31, 2-32, and 2-35 through 2-37, 3-34 through 3-50, 4-83 through 4-99, C-7 through C-10). It is my determination that the selected alternative will have no significant effects on public health and safety or on any resource attributes of the Ruby Copper project area.

**B. UNIQUE CHARACTERISTICS OF THE GEOGRAPHICAL AREA, SUCH AS PROXIMITY TO HISTORIC OR CULTURAL RESOURCES, PARKLANDS, PRIME FARMS, WETLANDS, WILD AND SCENIC RIVERS, OR ECOLOGICALLY CRITICAL AREAS**

Currently, there are no known districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places that will be affected by the selected alternative. As such, the actions should not cause the loss or destruction of significant scientific, cultural, or historic resources (EA A-17).

There will no change in the IPNFs old growth allocation. Approximately 134 acres of allocated dry forest old growth will be entered, but the prescriptions have been designed to maintain and improve the old growth characteristics of treated stands (EA 4-23 to 4-27).

No unique parklands, prime farms, wetlands, or wild and scenic rivers are located in the project area.

**C. THE DEGREE TO WHICH THE EFFECTS ON THE QUALITY OF THE HUMAN ENVIRONMENT ARE LIKELY TO BE HIGHLY CONTROVERSIAL**

The effects of these activities on the quality of the human environment are not highly controversial (EA 2-31 to 2-34; A-17 to A-21). Past monitoring has determined that the actual effects of similar projects are consistent with estimated effects of the proposed activities. There is a wide professional and scientific agreement on the scope and effects of these actions on the various resources (EA Literature Cited).

**D. THE DEGREE TO WHICH THE POSSIBLE EFFECTS ON THE HUMAN ENVIRONMENT ARE HIGHLY UNCERTAIN OR INVOLVE UNIQUE OR UNKNOWN RISK:**

The planned actions are similar to actions implemented in other areas on the National Forest system, state, county and private lands. Effects will be similar to those of past actions. The analysis considered the effects of past actions as a frame of reference in conjunction to the estimated effects of the proposal. It is my conclusion that there are no unique or unusual characteristics of the area, which have not been previously encountered, which will constitute an unknown risk to the human environment (EA 2-31 to 2-34; A-17 to A-21).

**E. THE DEGREE TO WHICH THE ACTION MAY ESTABLISH A PRECEDENT FOR FUTURE ACTIONS WITH SIGNIFICANT EFFECTS OR PRESENTS A DECISION IN PRINCIPLE ABOUT FUTURE CONSIDERATIONS**

The selected alternative is not setting a precedent for future actions of significant effects. Management practices are consistent with the Forest Plan and with the capabilities of the land. This action does not represent a decision in principle about future considerations.

**F. WHETHER THE ACTION IS RELATED TO OTHER ACTIONS WITH INDIVIDUAL INSIGNIFICANT BUT CUMULATIVE SIGNIFICANT IMPACTS**

The combined effects of past, other, and reasonably foreseeable actions are discussed in the EA. There is no indication of significant adverse cumulative effect to the environment (Chapters 3 and 4 and Appendix D, page D-3).

**G. THE DEGREE TO WHICH THE ACTION MAY ADVERSELY AFFECT DISTRICTS, SITES, HIGHWAY STRUCTURES, OR OBJECTS LISTED IN OR ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES, OR MAY CAUSE LOSS OR DESTRUCTION OF SIGNIFICANT SCIENTIFIC, CULTURAL, OR HISTORIC RESOURCES**

Currently, there are no known districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places that will be affected by the selected alternative. As such, the actions should not cause the loss or destruction of significant scientific, cultural, or historic resources (EA A-17).

**H. THE DEGREE TO WHICH THE ACTION MAY ADVERSELY AFFECT AN ENDANGERED OR THREATENED SPECIES OR ITS HABITAT THAT HAS BEEN DETERMINED TO BE CRITICAL UNDER THE ENDANGERED SPECIES ACT OF 1973**

It was determined that the proposed actions will either have *no effect*, or *may affect, but will not likely adversely affect* any Threatened, Endangered or candidate wildlife, fish, or plant species which may occur in the area (EA 4-98; Appendix A, pages A-1 and A-2; Appendix B). Complete Biological Assessments are provided within the project files for additional information.

**I. WHETHER THE PROPOSED ACTION THREATENS A VIOLATION OF FEDERAL, STATE, OR LOCAL LAW OR REQUIREMENTS IMPOSED FOR THE PROTECTION OF THE ENVIRONMENT**

The proposal meets federal, state and local laws for air (EA 2-33, A-20 to A-21) and water quality (EA 2-31 to 2-32, 2-44 to 2-46, 2-47, 2-48; 3-36 to 3-38; 4-82 to 4-99; A-19 to A-20; and Appendix C), streamside management and riparian areas (EA 2-36, 2-37; 3-36 to 3-38, and 3-43 to 3-46; 4-89, 4-93, and 4-94; A-19; Appendix C), cultural resources (EA A-17), and Threatened and Endangered species (EA 2-38 to 2-42, 2-43 to 2-44; 4-28 to 4-45, 4-99; A-1 and A-2; Appendix B), and meets National Environmental Policy Act disclosure requirements.

**VI. Documents and Project Files**

The project file contains the detailed information, data used and decisions made in selecting Alternative 2 for implementation. The Environmental Assessment, Decision Notice and Finding of no Significant Impact are available for inspection during regular business hours at:

Bonnors Ferry Ranger District  
6286 Main St.  
Bonnors Ferry, Idaho  
83805-9764

## **VII. Appeal Rights**

This decision is subject to appeal pursuant to 36 CFR 215.7. Within 45 days after the date of the notice of this decision is published in the Coeur d'Alene Press, written Notice of Appeal must be submitted to:

USDA, Forest Service, Northern Region  
ATTN: Appeals Deciding Officer (RFO)  
P.O. Box 7669  
Missoula, Montana 59807

Appeals must meet content requirements of 36 CFR 215.14. Detailed records of the environmental analysis are available for public review at the Bonnors Ferry District Office, 6286 Main St., Bonnors Ferry, Idaho, 83805-9764.

If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition. The notice of appeal must include:

- A statement that your document is an appeal filed according to 36 CFR part 215
- Your name, address and, if possible, telephone number
- The decision being appealed by title and subject, date of decision, and name and title of the Responsible Official
- The specific changes you want to see in the decision or the portion of the decision to which you object
- A statement of how my decision fails to consider comments previously provided either before or during the comment period specified in 36 CFR215.6 and, if applicable, how you believe the decision violates law, regulation, or policy

Your appeal will be dismissed if the preceding information is not included in the Notice of Appeal. If no appeal is received, implementation of this decision may occur five business days from the close of the 45-day appeal-filing period. If an appeal is received, implementation may

