# 1 Chapter - Purpose and Need

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# *Introduction*

The Crooked River Vegetation Management Project Environmental Assessment (EA) discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed management activities and determines whether to prepare an Environmental Impact Statement or a Finding of No Significant Impact. Additional documentation, including more detailed analyses of project-area resources, is in the Project Record located at the Council Ranger District Office in Council, Idaho. This EA is tiered to and supplements the analysis in the Final Environmental Impact Statement (USDA Forest Service 2003a) prepared for the Payette National Forest Land and Resource Management Plan (USDA Forest Service 2003b), hereafter referred to as the Forest Plan.

This EA has been prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) (40 CFR1500-1508), the National Forest Management Act (NFMA), and the Forest Plan.

# *Project Area*

The Crooked River Vegetation Management Project area is approximately 7,483 acres, within the Wildhorse River Watershed, located 18 air-miles northwest of Council, Idaho, in Adams County (Figure 1-1). The project area can be reached by taking Forest Road #002 (Council-Cuprum Road) to Forest Road # 50061 (Crooked River Road). The project area consists of National Forest System (NFS) lands located in T18N, R2W, Sections 6 and 7; T18N, R3W, Sections 1, 2, 3, 10 through 16, 22, 23, 26, and 27; T19N, R2W, Sections 30 and 31; and T19N, R3W, Sections 24, 25, 26, 35, and 36, Boise Meridian.

# *Purpose and Need for the Proposed Action*

## Background

Land management activities over the last century, such as fire suppression, harvest of large diameter trees (especially ponderosa pine), road construction, and livestock grazing have affected forest, grassland, and shrubland plant species composition and structure in the Crooked River Vegetation Management Project area. These changes include an increase in the density of trees in forested areas, a decrease in the average diameter of these trees, a shift in tree species composition, encroachment of trees upon grass and shrublands, and a buildup of fuels (Figure 1-2). Wildland Urban Interface (WUI) occurs along private lands with a number of cabins and other structures that occur within and adjacent to the project area (Figure 1-1). There is increased risk to these private properties from uncharacteristically severe wildfires in the project area.

Trending away from the desired condition has reduced habitat for species associated with open stands of ponderosa pine, such as white-headed woodpecker and northern Idaho ground squirrel (NIDGS), and increased habitat for species associated with denser fir stands, such as northern goshawk, pileated woodpeckers, and flammulated owls (for nesting and roosting). High road densities in riparian areas and culverts that block fish passage or contribute sediment have degraded fish habitat and reduced long term soil productivity.

NIDGS, a federally listed threatened species under the Endangered Species Act (ESA), occur in a small, isolated colony on private land within the project area and on National Forest System lands to the east of the project area. White-headed woodpecker, flammulated owls, northern goshawks, and pileated woodpeckers are known to occur in the project area.

**Figure 1-1 Crooked River Vegetation Management Project vicinity map.**

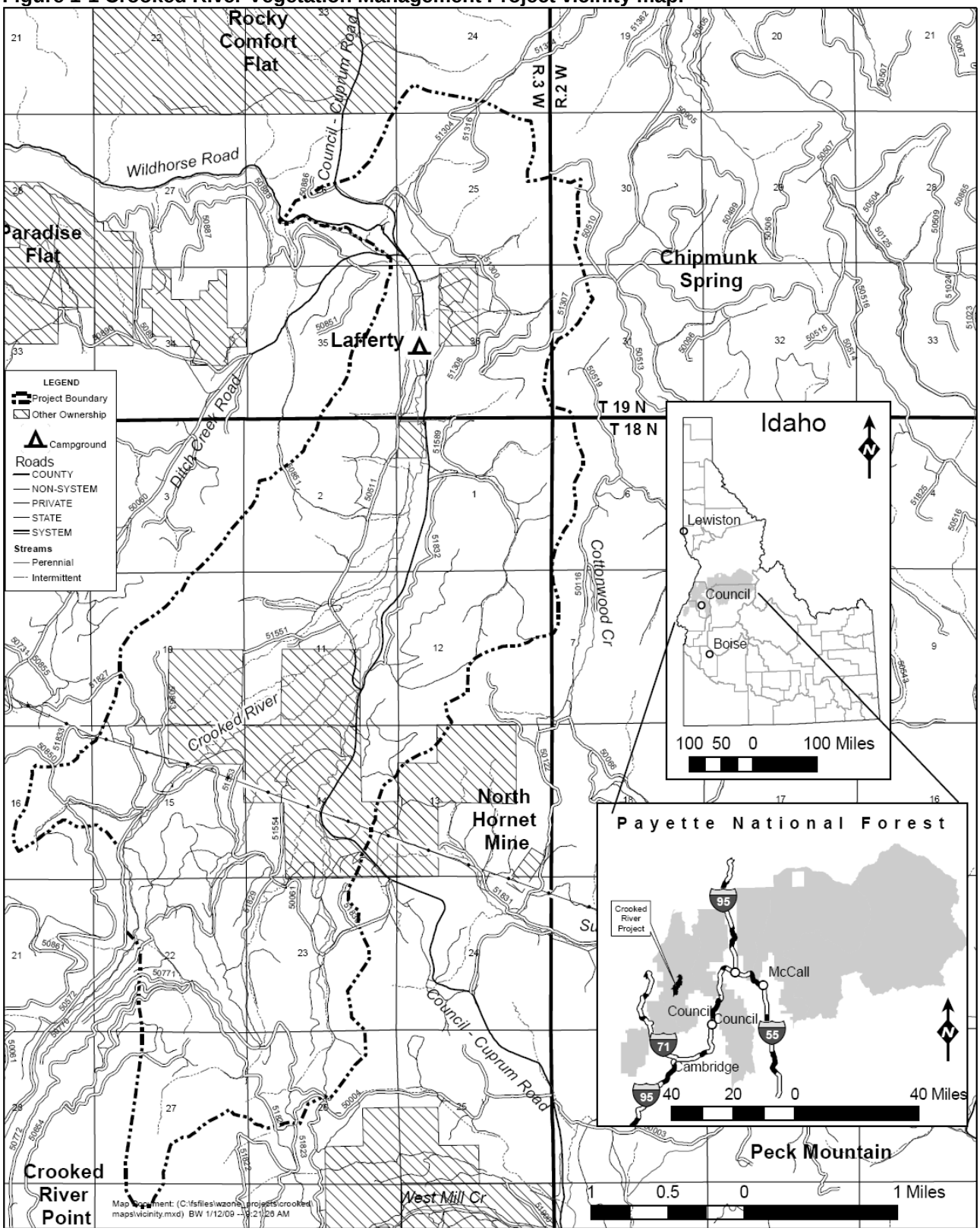

**Figure 1-2** Photograph on left shows a typical dense stand in the project area. Photograph on right shows an example of what some stands would look like after mechanical thinning and prescribed fire.

Crooked River is classified as an Aquatic Conservation Strategy (ACS) priority watershed for restoration. An extensive road network across the drainage, especially in riparian areas, and culverts that block aquatic organism passage or contribute sediment have degraded habitat and reduced long term soil productivity. High road densities have increased the drainage network, which can result in altered base flow levels and peak flow/runoff timing.

Road construction and other management activities in riparian areas have likely reduced the amount of riparian-dependent vegetation along perennial streams. The Idaho Department of Environmental Quality (IDEQ) has listed the Wildhorse River on the state 303(d) list of impaired waterbodies and has published a Total Maximum Daily Load (TMDL), which describes Wildhorse River and its major tributaries (of which Crooked River is one) as temperature-impaired due to elevated stream temperatures and a lack of stream shading.

## Proposed Action

This project would:

- Apply restoration thinning prescriptions to forest stands in preparation for prescribed burning.
- Prescribed burn less dense forest stands without mechanical treatment, and broadcast burn non-forested areas throughout the project area.
- Move forest stands toward desired conditions by returning fire to the ecosystem, promoting the development of large tree forest structures mixed with a mosaic of size classes and improving stand health, growth, species composition, and resiliency to insects, disease and fire.
- Prescribed burn conifer plantations to reduce fuels and tree densities.
- Improve habitat for white-headed woodpecker and NIDGS.
- Implement actions, such as relocating and decommissioning roads (including removing compaction and restoring original slope contour) in riparian conservation areas (RCAs), and upgrading culverts, to improve watershed conditions.

More detailed information on the proposed action is provided in Chapter 2, Alternative 2.

## Purpose of the Proposal

There are four specific objectives of the proposal. These objectives represent the purpose for this project.

### Objectives

- Move vegetation toward the desired conditions defined in the Forest Plan, with an emphasis on promoting the development of large tree forest structures and reintroducing fire into the ecosystem, and improving forest health.
- Reduce the risk of uncharacteristic and undesirable wildland fire, with an emphasis on wildland urban interface protection.
- Reduce stand density and promote large tree structure to improve habitat for white-headed woodpeckers and NIDGS.
- Improve watershed condition.

## Need for the Proposal

### Forest Plan Goals and Objectives

Fire management goals and objectives in the Forest Plan (FMGO03, FMGO04, FMGO05, FMOB02, FMOB04 and FMOB0271) provide direction to use fire, along with other management activities (such as mechanical treatments), to:

- maintain desirable plant community attributes including fuel levels, as well as ecological process (See Vegetation Goals – ie – VEGO03);
- treat natural and activity fuels to a level that reduces the risk of uncharacteristic or undesirable wildland fires;
- protect life, investments, and valuable resources; &
- achieve desired vegetation attributes and fuel reduction goals.

This project would use fire and mechanical treatments to move vegetative conditions toward the desired conditions specified in the Forest Plan. The treatments would reduce the risk of wildfire to private in-holdings, and Lafferty Camp Ground, within and adjacent to the project area. The restoration treatments would also reduce the risk of wildfire around Lafferty Campground which is within the project area and adjacent to proposed treatment areas.

Vegetation goal VEGO01 in the Forest Plan states that management actions will “maintain or restore desired plant community components, including species composition, size classes, canopy closures, structure, snags, and coarse woody debris as described in Appendix A”. Thinning restoration treatments would move forested areas towards the desired condition of more seral tree species (e.g., ponderosa pine), larger tree size class, and more open canopies. Prescribed burning would create more snags, enhance recruitment of coarse woody debris, and shift the forest floor, and grass and shrubland plant communities towards the historic fire maintained species composition.

Timberland resources objective TRGO01 states that the Forest will “Manage forested vegetation to achieve: a) Conditions that are resilient and resistant to uncharacteristic fire, insect, and disease damage, and b) conditions that contribute to desired vegetative conditions, including distribution of tree sizes, species composition, and canopy cover”. The proposed treatments would make more sunlight and water, available to the trees. These trees would then be more vigorous and resistant to insect and disease damage. Many of the trees that are currently affected by disease would be removed during harvest operations.

Timberland resources objective TRGO02 states that the Forest will “Manage suited timberlands to achieve a) Growth rates and yields that are compatible with other resources, d) Successful reforestation through the application of appropriate and available silvicultural techniques, e) vegetative conditions (structure, density, etc) in plantations and surrounding stands that result in reduced hazard for loss from uncharacteristic disturbance events”. Treatments would reduce tree densities and risk from

uncharacteristic wildfire in mature stands and plantations. Growth rates and future yields would be enhanced by making more sunlight and water available to the residual trees. Patches of ponderosa pine seedlings would become established through natural regeneration where openings are created.

The white-headed woodpecker is a Region 4 Sensitive species and also a Forest Management Indicator Species (MIS). This management area has particular Forest Plan objectives and guidelines (0242, 0243 and 0244) to improve white-headed woodpecker habitat. This project would improve long-term habitat quality for white-headed woodpecker, by thinning dense stands to create more open conditions and promote development of large tree forest structure.

The Snake River management area has Forest Plan wildlife goals, objectives, and standards, (0240, 0241 and 0248) to improve NIDGS habitat in this area. Specifically, wildlife standard 0248 states - “The Northern Idaho ground squirrel will receive priority consideration for all management activities that occur within their known occupied habitat. The intent of this standard is not to exclude all other activities within this habitat, but rather to reduce or minimize potential impacts to this species while emphasizing habitat improvement within and adjacent to known sites”. NIDGS are currently known to occur on private land within the project area, and adjacent to the project area boundary. This project would improve habitat suitability on National Forest System lands adjacent to the colony on private land by creating more open conditions and rejuvenating grass and forb species.

Forest Plan management area soil, water, riparian and aquatic resources objective SWRAO0230 states that the Forest will "restore riparian vegetation and floodplain function by reducing the adverse effects of roads through relocation, reconstruction, or obliteration in the Brownlee Creek and Wildhorse River drainages." The project activities would remove fish barriers, and relocate, reconstruct, and decommission roads within RCAs within the project area.

Forest Plan management area soil, water, riparian and aquatic resources objective SWRAO0235 states that the Forest will "restore structure and composition of shrub and deciduous tree components in those portions of riparian areas where these components are missing or on a downward trend due to historic livestock use, fire exclusion, conifer encroachment, roads, and non-native plants." Underburning, thinning of conifers, and decommissioning roads in RCAs would rejuvenate shrub and deciduous tree species and move vegetation towards Forest Plan desired conditions.

## *Management Direction*

### Payette National Forest Land and Resource Management Plan

This analysis is tiered to the Final Environmental Impact Statement for the 2003 Payette National Forest Land and Resource Management Plan (Forest Plan). The Forest Plan guides natural resource management activities on lands administered by the Payette National Forest and describes management goals and objectives, resource protection methods, and desired resource conditions. The Forest Plan divides NFS lands into management areas based on resource needs and opportunities.

The Crooked River project is located in Management Area 2 – Snake River, and lands within the project area have been identified as Management Prescription Category (MPC) 5.1- restoration and maintenance emphasis within forested landscapes, and 5.2 - commodity production emphasis within forested landscapes.

### Decision to be Made

Based on the analysis disclosed in this EA and public comments, the Responsible Official will make a decision and document it in a Decision Notice and Finding of No Significant Impact. The Responsible Official can:

- Select the Proposed Action Alternative,
- Select a different Action Alternative, or
- Select the No Action Alternative

As part of the decision, the Responsible Official will decide what project design features, mitigation measures, and monitoring would be required (Chapter 2 Table 2-5; Table 2-6).

## Project Record and Specialist Reports

This EA incorporates, by reference, the project record (40 CFR 1502.21). The project record contains specialist reports and other technical documentation used to support the analyses and conclusions in this EA.

Relying on specialist reports and the project record helps implement the CEQ Regulations' provision that agencies should reduce NEPA paperwork (40 CFR 1500.4), and that NEPA documents be analytic rather than encyclopedic, kept concise, and no longer than absolutely necessary (40 CFR 1502.2). The objective is to furnish enough site-specific information to demonstrate a reasoned consideration of the environmental impacts of the alternatives and how these impacts can be mitigated, without repeating detailed analysis and background information available elsewhere. The project record is located at the Council Ranger District, Council, Idaho.

## *Objectives and Key Issues*

The Purpose and Need drives the proposed action and is based on Forest Plan goals and objectives (see Need for Proposal above). The purpose of the project is represented by four project specific objectives (see Purpose of Proposal above). **Measurements** are resource specific and are used as a basis to compare how each alternative meets the objectives of the project. Key Issues are developed with internal and external comments and are defined as points of discussion, or dispute about environmental effects. Key Issues are grouped by resource and are used to develop alternatives, appropriate mitigations, and analyze environmental effects. Each key issue is tracked using **indicators** which compare the effects of the proposed activities by alternative

Issues not Analyzed in Detail are discussed in this Chapter with a brief discussion of why each was not analyzed in detail. Further documentation is found in the Project Record. These issues are not discussed further in this document.

## Forested Vegetation Resource

**Objective**

*Move vegetation toward the desired future conditions defined in the Forest Plan, with an emphasis on promoting the development of large tree forest structures and reintroducing fire into the ecosystem, and improving forest health.*

**Measurement**

- Effects to tree size class distributions, canopy closure, species composition, and the number of snags

## Fire and Fuels Resource

**Objectives**

*Move vegetation toward the desired future conditions defined in the Forest Plan, with an emphasis on promoting the development of large tree forest structures and reintroducing fire into the ecosystem, and improving forest health.*

*Reduce the risk of uncharacteristic and undesirable wildland fire, with an emphasis on wildland urban interface protection.*

**Measurements**

- Fire Return Interval Departure (FRID)
- Predicted fire behavior

## Wildlife Resource

**Objective**
*Improve habitat for the Northern Idaho ground squirrel (NIDGS) and white-headed woodpecker (WHWO).*

**Measurements**
- Acres of NIDGS habitat improved by mechanical harvest and prescribed fire.
- Acres of WHWO habitat improved by mechanical harvest and prescribed fire.

**Key Issue**
*Effects on wildlife resources of mechanical thinning, prescribed fire, and other associated project activities.*

**Indicator**
- Temporary, short, and long term effects to Northern Idaho ground squirrel, flammulated owl, great gray owl, Northern goshawk, pileated woodpecker, and white-headed woodpecker.

## Watershed and Fisheries Resource

**Objective**
*Improve watershed condition.*

**Measurements**
- Miles of road decommissioned within RCAs
- Percent over natural (%ON) sediment over the long-term as modeled by BOISED

**Key Issue**
*Effects of thinning, prescribed fire, road management and other project activities on RCAs, water quality and fisheries.*

**Indicators**
- Trend in RCA condition
- Percent over natural (%ON) sediment during project implementation and over the long-term as modeled by BOISED.

## Soil Resource

**Key Issue**
*Effects of proposed actions on soil conditions and long term site productivity.*

**Indicators**
- Levels of Total Soil Resource Commitment (TSRC) across the Project Area
- Levels of Detrimental Soil Disturbance (DD)
- Levels of Coarse Woody Debris (CWD)

# *Issues Not Analyzed in Detail*

These non-key issues will not be analyzed in Chapter 3, because they do not constitute a Key Issue as defined above. A brief discussion of expected effects is summarized for each issue and no further discussion occurs in this document.

## Air Quality

*Issue - Prescribed burning in the project area has the potential to affect air quality in Adams County, Valley County, and the local vicinity.*

Prescribed burning for fuels reduction and ecosystem restoration includes careful planning (prescription development) and participation in the Montana/Idaho State Airshed Group that would reduce the impacts of prescribed burning on air quality by restricting prescribed burning to conditions when smoke dispersal would be optimal. To ensure that air quality meets federal and state standards while prescribed fires are being conducted, the Payette National Forest has joined a partnership, known as the "Montana/Idaho State Airshed Group. Before prescribed fires are ignited, fire managers are required to submit their plans to the Montana/Idaho State Airshed Group monitoring unit. The monitoring unit reviews existing air quality levels along with weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. (Southwest Idaho Prescribed Fire Website).

The Hells Canyon National Recreation Area (Class I Airshed) is approximately 15 miles north of the proposed burn sites. There are no non-attainment or sensitive areas (i.e., areas with large populations) near the project area.

Prescribed fire burn plans, completed for all prescribed burns, address the following management actions with respect to air quality:

- Consider other sources of emissions,
- Identify sensitive areas,
- Include descriptions of planned measures to reduce smoke impacts as appropriate,
- Identify the potential risk for smoke intrusions into sensitive areas and
- Describe ambient air monitoring plans, when appropriate.

Action alternatives would comply with air quality regulations, as would the No Action Alternative, so there is no regulatory distinction between the alternatives. Although the action alternatives would allow for greater control over air quality impacts compared to the No Action Alternative, the difference from discretionary actions proposed in this EA is not significant. This consideration eliminates air quality as a key issue for environmental analysis for this proposal.

## Cultural Resources

*Issue - The effects of the proposed action on cultural properties.*

There are 17 documented historic properties within the project area. Eight of the properties are eligible to the National Register of Historic Places. Due to their location, five of the eligible historic properties within the project area would be actively avoided.

Mitigations would ensure that cultural properties would be protected during project activities, such as road decommissioning or construction, harvest activities, and prescribed fire. Refer to Chapter 2, Table 2-5 – Mitigation Measures for additional protection that would be required within the project area.

## Roads and Access Management

*Issue - The effects of the proposed action on road access.*

The relocations and decommissioning were identified in the Wildhorse Roads Analysis Process (USDA Forest Service 2009) on file in Council Office. All of the roads proposed for decommissioning are currently closed to motorized travel; therefore, the project would not change current motorized access. The proposed 0.9 miles of new road construction would be for administrative use only and closed to public motorized travel.

The project proposal identifies non-system road decommissioning to reduce sediment delivery to stream channels, improve hydrologic function, rehabilitate riparian conservation areas, and improve wildlife habitat. Other non-system roads within the project area would be used during harvest activities and decommissioned or converted to system roads with Level 1 maintenance. All non-system roads that would be decommissioned are closed to motorized travel.

National Forest system roads that are currently open to public use would remain open, and closed roads used for the project would be closed upon project completion. Decommissioning would occur only on closed non-system roads and would have no effect on public motorized access.

## Economics/Socio-Economics

*Issue - The proposal has the potential to influence income and jobs, both locally and regionally.*

The proposed action would harvest about 9 million board feet (MMBF) of timber. Harvest of the timber would generate jobs and income to the local economy. Robison and Gneiting (2000), determined each (MMBF) of timber harvest provided 9.2 jobs and $296,700 in income. The Crooked River proposal would provide 8.3 jobs (8.3 jobs for 10 years) and $2,670,000 in income. The sale of included timber and associated road work is expected to have receipts of about $650,000. Prescribed fire treatments (estimated to be $990,000), are expected to cost more than the revenue generated from timber harvest. About $340,000 from sources other than the sale of timber will be needed to fully implement the proposal.

## Rangeland Resource

*Issue - Vegetation manipulation through timber harvest, prescribed fire, road decommissioning, and construction has the potential to alter the available quantity, quality, and composition of vegetation, and possibly contribute to new infestations of noxious weeds.*

All action alternatives are expected to improve vegetation available for livestock over time. Noxious weeds are addressed in Chapter 2, Table 2-5, Mitigation Measures, Rangeland Resource. Grazing management is outside the scope of this project and would continue as currently permitted under the Allotment Management Plan (AMP) and annual operating plan (see Rangeland Resources Specialist's Report, project record). If appropriate, livestock trails would be left on decommissioned roads.

## Recreation and Visual Resources

*Issue - Effects of road decommissioning on recreational access.*

All of the roads proposed for decommissioning are closed to motorized travel; therefore, the amount of legal motorized access would not change.

*Issue - The proposal may affect recreation use in the project area.*

The Lafferty Campground is located within the project area. There may be some temporary impacts on camping during logging activities. There are no Forest Service motorized or non-motorized trails within the project area. Limited, if any, effects on disperse camping would occur from the project. There may be some temporary impacts on recreation, such as hiking and hunting, during the logging activities.

The proposed action may provide new opportunities for motorized recreation activities for the short-term if some roads are opened to the public for firewood gathering (biomass removal). These roads would be closed after completion of sale activities. The area these roads accessed would be less visually attractive because of the harvest activities.

Recreation Opportunity Spectrum classifications would remain unchanged with the proposed action.

See Chapter 2, Table 2-5 – Mitigation Measures/Project Design Features for recreation mitigation measures regarding public safety and log haul.

*Issue - The proposal may affect visual quality in the project area.*

The project area has a mix of visual quality objectives (VQO) of retention, partial retention, and modification. The sensitive travelway identified for this project is the Council-Cuprum Road #002. Under the VQO Modification management (95% of project area), activities may visually dominate the original characteristic landscape. However, vegetation activities as proposed in this project must borrow from naturally established form, line, color, or texture to blend activities with the surrounding natural landscape. Under Partial Retention management (5% of the project area), activities may be evident but must remain subordinate to the characteristic landscape. The Partial Retention management area borders the

Council-Cuprum Road (visually-sensitive route). Mitigation measures have been incorporated into the project design to meet both criteria. Mitigation measures can be found in Chapter 2, Table 2-5

## Public Safety

*Issue - The proposal may affect public safety*

Log landing use and log hauling would be managed so that Forest visitors would be able to drive on National Forest System Roads safely during project activities. As outlined in the mitigation measures table, management precautions include posting warning signs, identifying CB operating channels used by the log trucks, and posting mile marker signs to be referenced during CB communications. Log haul would be prohibited during opening day of big game hunting season. Mitigation measures can be found in Chapter 2, Table 2-5.

## Threatened, Endangered and Sensitive Plant Species

*Issue - Ground-disturbing activities associated with this project could affect habitat and/or population numbers of sensitive plant species.*

There are no ESA listed threatened or endangered plant species on the Payette National Forest. The project area contains habitat for two Forest Sensitive plant species: Tolmie's onion (*Allium tolmiei*) and Bank Monkey-flower (*Mimulus clivicola*).

Three known sites of Tolmie's onion occur within the project area with potential habitat scattered on non-forested, south-facing slopes. No known sites of Bank Monkey-flower occur within the project area but potential habitat occurs in open grasslands, shrub fields, and other forest gaps. The small size and short flowering time of the annual, Bank Monkey-flower, make detection difficult but it is highly likely the plant is established within the project area.

Ground-disturbing activities associated with this project could affect habitat and/or population numbers of the two sensitive plant species. Specific threats include road construction and maintenance, skid trails or temporary roads, landings, and fuel reduction burns. Mitigation measures (Table 2-5) would be incorporated in order to avoid or minimize any impacts to sensitive plant resources from the project activities. Post-project monitoring would occur to observe effects and recovery from project impacts. Because both sensitive species appear secure throughout their range, the Biological Evaluation concludes with a determination that the proposed project activities could impact individual plants and habitat, but would not likely result in a trend toward Federal listing or a loss of viability.

## Wildlife Resource

*Issue - Proposed prescribed burning may affect turkey roost trees and nesting.*

Turkey nests that are identified from wildlife surveys, or located by fire crews during burning activities would be protected. Fall burning would be planned instead of spring burning in areas where turkey nests could not be avoided.

## Vegetation Resource

*Issue - Excessive mortality in plantations from prescribed fire*

Mortality from prescribed fire in plantations is both expected and desired, and is deemed an appropriate alternative to thinning by hand. The burn plan would specify temperature, humidity, wind speed, and fuel moisture parameters along with ignition techniques so that:

- Based on stems per acre, no more that 20% mortality would occur in conifers.
- Tree scorch would not reduce average crown ratios below 50%.
- Post fire stocking levels would be approximately 150-200 trees per acre.
- Modifications to these objectives would be made by the District Silviculturist in the specific prescription for each unit.

The Behave Plus fire modeling system or similar model would be used to help determine the necessary parameters to achieve the desired results.