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Forest Service

Lolo National Forest

Ninemile Ranger
District

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Environmental Assessment and Finding of No Significant Impact

BARRETTE CREEK FUELS REDUCTION PROJECT



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DRAFT FINDING OF NO SIGNIFICANT IMPACT

After considering the environmental effects described in the Barrette Creek Fuels Reduction Environmental Assessment (EA), I have determined that the proposed action will not have a significant effect on the quality of the human environment based on the context and intensity of its impacts (40 CFR 1508.27). Therefore, an environmental impact statement will not be prepared.

/s/ _____
Debbie Austin
Forest Supervisor
Lolo National Forest

Date

I base my findings on the following:

The project would reduce forest fuels on approximately 685 acres in between the Bird and Fire Creek Drainages on the Ninemile Ranger District. The proposed action would implement proposed activities that are of limited scope and duration, affecting only the immediate area around the proposed treatment units. The project would be implemented over a period of one to three years. The project was designed to minimize environmental effects through fuel treatment location, timber harvest methods, silvicultural prescriptions and design features of the project. The Forest Service found no significant issues or unresolved conflicts concerning alternative uses of available resources that warrant consideration of additional alternatives. Implementing regulations for NEPA (40 CFR 1508.27) provide criteria for determining the significance of effects. Significance, as used in NEPA, requires consideration of both context and intensity.

(a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale, rather than the world as a whole. Both short and long term effects are relevant (40 CFR 1508.27).

The effects of the proposed actions are limited in context. The project activities are limited in size (655 acres of tractor yarding treatment and 30 acres of hand treatment) and duration (management actions associated with the proposal would be completed within a 1-3year time frame). Effects are local in nature and are not likely to significantly affect regional or national resources.

Design features (EA, pages 7-10) are incorporated into the proposed action to minimize and avoid adverse impacts to the extent that such impacts would be almost undetectable and immeasurable, even at the local level.

Within the context of the landscape as a whole, or at the stand level, the ecological consequences are not found to be significant in either the short- or long-term.

(b) Intensity. This refers to the severity of impact. The following ten aspects are considered in the evaluation of intensity (40 CFR 1508.27).

1. Impacts that may be both beneficial and adverse.

I considered beneficial and adverse impacts associated with the proposed action as presented in the Barrette Creek Fuels Reduction EA. These impacts are within the range of effects identified within the Lolo National Forest Plan. Based on the detailed specialist reports contained within the project file and summarized in the EA, I conclude that the specific direct, indirect, and cumulative effects of the proposed action are not significant, and this action does not rely on beneficial effects to balance adverse environmental effects.

No Effects

Project design and design features effectively eliminated or reduced to negligible most of the potential impacts, therefore, implementation of the proposed action would result in no effect to the following resources: fuels (EA, pages 11-12), air quality (EA, page 12), heritage resources (EA, page 13), fisheries-bull trout (EA, pages 13-14), fisheries-westslope cutthroat trout (EA, pages 13-14), water quality (EA, pages 15), vegetation-old growth (EA, page 15); vegetation-water howellia (EA, page 16), vegetation-spalding's catchfly (EA, page 16), vegetation-clustered ladyslipper (EA, page 17), visual resources (EA, page 17), soil productivity (EA, pages 17), wildlife (EA, pages 17-18), gray wolf (EA, pages 18-19), lynx (EA, page 19), grizzly bear (EA, page 19), bald eagle (EA, page 20), Coeur d'Alene salamander (EA, page 21), black-backed woodpecker (EA, pages 21-22), flammulated owl (EA, page 22), Townsend's big-eared bat (EA, pages 22-23), wolverine (EA, page 23), western toad (EA, pages 23-24), northern leopard frog (EA, page 24), sensitive species with no suitable habitat in project area (EA, page 25), Northern goshawk (EA pages 25-26), pileated woodpecker (EA, pages 26-27), big game-elk (EA, pages 27-28), inventoried roads (EA, page 28), and weeds (EA, page 28).

Beneficial Effects

The Barrette Creek Fuels Reduction EA documents the following beneficial effects of implementing the proposed action:

- The proposed action would remove ground and ladder fuels and separate the tree crowns, which would effectively modify fire behavior and reduce the burn intensity of a potential wildfire. Reduction in burn intensity would enable suppression forces to fight a fire more safely and effectively (EA, page 11). The combination of the fuels projects and wildland fire provides a more defensible space along six miles of private property on the west side of the Ninemile Valley (EA, page 12).

- Commercial thinning treatments would likely increase herbaceous under story plants that support the insects upon which flammulated owls prey. In the event of a future wildfire, there would be a higher probability that treated stands would remain as suitable nesting and foraging habitat for flammulated owls as opposed to untreated areas that would be more susceptible to damage from high intensity fire (EA, page 22).
- Fuel treatment activities would create more open stand conditions that would maintain suitable foraging habitat for goshawks (EA, page 26).
- Roadside herbicide treatment would reduce existing weed populations within the project area (EA, page 28).

Potential Adverse Effects

The Barrette Creek Fuels Reduction EA documents the following potential adverse effects from implementing the proposed action. All adverse effects would be small or short-lived. None are deemed irreversible or irretrievable and do not set in motion further effects.

Fuels (EA, page 11): There could be an increase in fire hazard during the period of time between thinning operations and piling burning (typically no longer than one year). Where possible, the tops of trees would be removed with the cut trees, which would minimize the amount of slash on the ground and the potential fire hazard within the treatment units. Once pile burning is completed, this potential temporary increase in fire hazard would be neutralized.

Air Quality (EA, page 12): Smoke from landing and hand-pile burning contains particulate matter that would temporarily reduce air quality downwind of burn units. Effects would be localized and last for a short duration. Proposed pile burning would be monitored and controlled by airshed regulations to avoid violation of air quality standards.

Clustered ladyslipper (EA, page 17): Clustered ladyslipper is listed as a sensitive plant species. Although no sensitive plants were found during field surveys, habitat for clustered ladyslipper was identified in areas proposed for treatments. Tractor yarding and landing piles could affect the quality of available clustered ladyslipper habitat by disturbing soil. So while the project could affect individual plants if they are present, it would not lead to a loss of species viability or contribute to a trend toward Federal listing. There would be no effect to any other sensitive plant species because habitat for them does not exist within the project area.

Soil Productivity (EA, page 17): The proposed action would meet Lolo National Forest Plan standards and Regional guidelines for maintaining soil productivity. Potential detrimental soil disturbance from proposed activities, in combination with existing soil conditions, would not exceed the 15 percent Regional standard within any activity area. Ground-based timber harvest (i.e. tractor logging) that has the most potential to cause soil compaction and

displacement would occur on along skid trails and landing piles. However, design features and best management practices would be used to minimize soil disturbance and ensure that productivity is maintained. Coarse woody debris would be left on site for soil productivity as outlined in the Lolo National Forest Down Woody Material Guide (2006). No long-term impacts to soil productivity are anticipated. Monitoring of previously harvested timber sale units on the Lolo National Forest suggests that detrimental soil disturbance dissipates over time and does not irreversibly damage soil (LNF unpublished data 2007).

Pileated Woodpecker (EA, pages 26-27): Proposed treatments in the Barrette Creek project would not adversely affect any pileated nesting habitat due to the lack of an old growth component, which they prefer. Fuel treatment activities would maintain suitable foraging habitat because these stand characteristics would be retained within treatment units. Overall, the species composition of the stands in the Barrette Creek Fuels project provide feeding habitat but little nesting habitat for pileated woodpeckers because of the large amount of Lodgepole Pine. So while the project could possibly displace individual birds in the short-term, if they are present, it would not individually or cumulatively lead to a loss of species viability because foraging habitat would be maintained within treatment units, no nesting habitat would be affected, and pileated woodpecker habitat is abundant across the Forest and Region.

Northern Goshawk (EA, pages 25-26): Although the project area contains potential foraging and nesting habitat for northern goshawks, surveys conducted within the project area only detected the presence of several birds. Proposed treatments would occur within suitable foraging habitat, but no activities are proposed within suitable nesting habitat (Reynolds et al. 1992:18). Suitable goshawk foraging habitat is characterized by mature ponderosa pine/Douglas-fir stands containing larger trees, a variety of tree sizes/ages, herbaceous grasses and forbs, and open stand conditions. Fuel treatment activities would maintain suitable foraging habitat because these stand characteristics would be retained within treatment units.

If goshawks are present during implementation, project activities could potentially disturb individuals. However, fuel treatment activities would create more open stand conditions that would maintain suitable foraging habitat. Based on recent broad-scale habitat and inventory and monitoring assessments conducted in the Northern Region, breeding goshawks and their associated habitats appear widely distributed and relatively abundant on National Forest system lands (Samson 2006a, 2006b; Canfield 2006; Kowalski 2006). On the Lolo National Forest alone, there is approximately 1½ times the habitat needed Region-wide to maintain a minimum viable population (Samson 2006a). So while the project could possibly displace an individual bird in the short-term, if they are present, it would not individually or cumulatively lead to a loss of species viability because foraging habitat would be maintained within treatment units, no nesting habitat would be affected, and goshawk habitat is abundant across the Forest and Region.

Weeds (EA, page 28): Proposed project activities that disturb the soil and/or that create openings in the forest canopy would increase the potential for the establishment and spread of weeds. Harvest prescriptions and burn plans would be designed to maintain shading of the

forest floor and protect the duff layer above the soil to minimize the potential for further establishment of weeds in the project area. Roadside herbicide treatment would be conducted prior to fuel treatment activities to further reduce existing weed populations within the project area. Additional design features are incorporated in the proposed action to reduce the potential for weed establishment and spread.

2. The degree to which the proposed action affects public health or safety

The fuel reduction treatments are designed to increase the efficiency of fire suppression efforts and reduce risks to firefighters, local residents, the public, structures, and natural resources. The implementation of these treatments would result in improved community safety because the fuel reduction would increase the chance of suppressing a wildfire before it reaches private property. All pile burning would comply with State Air Quality Standards and be coordinated through the Montana Airshed Group.

Herbicide treatments of weeds would comply with label directions and be consistent with mitigation measures outlined in the Lolo National Forest Integrated Weed Management Environmental Impact Statement and Record of Decision (USDA 2007).

It is my determination that by incorporating the Design Features for air quality and following herbicide application requirements, the proposed action will have no adverse effects on human health and safety.

3. Unique characteristics of the geographic area, such as proximity to historic or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas

The proposed action will not impact any known cultural or heritage sites (EA, page 13). The project area does not contain any parklands, prime farmlands, wild and scenic rivers, wetlands, or ecological critical areas. Based on this information, I conclude that the proposed action will have no effects on unique resources.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial

Based on the limited context of the project, my review of the public comments received, and the analysis documented in the EA and Project File, I do not find any controversial effects to the human environment. I conclude that the effects of the proposed action are not considered highly controversial by professionals, specialists, and scientists from associated fields of forestry, wildlife biology, soils, fisheries, and hydrology.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risk

Based on my review of public comments received on this project and the analysis documented in the EA and Project File, I conclude that there are no uncertain or unique

characteristics in the project area which have not been previously encountered or that would constitute an unknown risk to the human environment.

Given the nature of the trees and lesser vegetation to be removed and the large proportion to be left, the effects to the quality of the human environment are not significant. The agency has considerable experience in such projects and the consequences of such actions are well established and predictable.

A technical analysis (EA and Project File) that discloses potential environmental impacts (which is supportable with use of accepted techniques, reliable data, and professional judgment) has been completed, and I believe that the impacts of implementing this decision are within the limits that avoid thresholds of concern.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

The Barrette Creek Fuels Reduction project is a site-specific project that does not set precedence for future actions or represent a decision in principle about future considerations. Any proposed future project must be evaluated on its own merits and effects. The proposed action is consistent with the Lolo National Forest Plan and the capabilities of the land.

7. Whether the action is related to other actions with individual insignificant but cumulative significant impacts

Connected, cumulative, and similar actions have been considered and included in the scope of the analysis. The analysis accounts for past, present, and reasonably foreseeable future actions. There are no other actions proposed or currently ongoing within the project area. Based on my review of the analysis and disclosure of effects in the EA, specialists' reports, Biological Assessments and Evaluations, and other analyses in the Project Record, I conclude that the Barrette Creek Fuels Reduction project would not contribute potential cumulative adverse impacts (EA, pages 10-28).

8. The degree to which the action may adversely affect districts, sites, highways, 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

No inventory was necessary due to the project area having a low probability for heritage resources. No known American Indians or Alaska Native religious or cultural sites were identified. There are no known heritage resources that would be impacted by the project. If a site is located before or during implementation its eligibility status will be determined in consultation with MTSHPD prior to implementation or it will be managed as eligible and avoided during implementation. (EA, page 13)

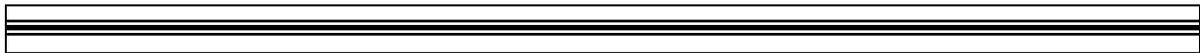
9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973*

This project will have no effect on any threatened or endangered species or its habitat (refer to #1 above).

10. *Whether the proposed action threatens a violation of Federal, State, or local law requirements imposed for the protection of the environment*

The proposed action meets all federal, state, and local laws, including those for air quality (EA, page 12), heritage resources (EA, page 13), water quality (EA, pages 15), and threatened and endangered species (EA, pages 16, 18-20). It also meets the National Environmental Policy Act disclosure requirements (Barrette Creek Fuels Reduction EA and Finding of No Significant Impact).

The proposed action is consistent with the National Forest Management Act (NFMA) and the Lolo National Forest Plan. Proposed activities are consistent with the standards, goals, and objectives of Management Areas 16, 23, and 25 as determined in the Forest Plan (Scenery Management Report, page 1). Commercial harvest activities on approximately 655 acres would occur on lands designated as suitable for timber management in the Forest Plan. All proposed activities would occur within Fire Management Unit 1 (defined as wildland urban interface areas), which is listed as the highest priority for hazardous fuels reduction treatments in the Lolo National Forest Fire Management Plan (Lolo National Forest Plan, Appendix X). This proposal does not require any Forest Plan amendments.



ENVIRONMENTAL ASSESSMENT

INTRODUCTION

The Barrette Creek Fuels Reduction project area, consisting of approximately 685 acres, is located between the Bird and Fire Creek Drainages on the Ninemile Ranger District. The project area is located in the Ninemile Creek watershed, approximately eight miles northwest of the Ninemile Ranger Station, within portions of Sections 17-20, T16N, R24W, and Sections 12-13, T16N, R 24W.(see map in Appendix A). This project area is located near Huson, Montana, is considered within the wildland urban interface and is adjacent to private land that contains several homes. This project was developed to reduce hazardous fuels, using various methods, and make progress towards accomplishing objectives in priority areas identified in the Missoula County Community Fire Protection Plan.

When the Barrette Creek Fuels Reduction project was originally proposed in 2005, it fit within a category of actions that was excluded from documentation in an Environmental Impact Statement (EIS) or Environmental Assessment (EA). Category 10, Hazardous Fuels Reduction Categorical Exclusion (HFRCE), included hazardous fuels reduction activities using prescribed fire and mechanical methods (Forest Service Handbook (FSH) 1909.15 section 31.2(10))¹. The Council of Environmental Quality (CEQ)² regulations allow federal agencies to exclude from documentation in an EA or EIS categories of actions that do not individually or cumulatively have a significant effect on the human environment. After completion of the environmental analysis and having received only supportive comments about the project during the 30-day comment period, the Ninemile District Ranger determined that no extraordinary circumstances existed relating to the project and he prepared to sign the Decision Memo authorizing project activities. However, in December 2007, the U.S. Ninth Circuit Court of Appeals, in their decision on *Sierra Club v. Bosworth*, declared the HFRCE invalid because it concluded that the Forest Service failed to properly assess the significance of the hazardous fuels reduction categorical exclusion and failed to demonstrate that the agency made a reasoned decision to promulgate the HFRCE. This meant that CE Category 10 could no longer be used to authorize projects.

The Forest Service has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA), the Lolo National Forest Plan, 40 CFR 1508.9, 36 CFR 220.7, and other relevant federal and State laws and regulations. This EA discloses the project's foreseeable environmental effects for consideration in determining whether or not to prepare an Environmental Impact Statement. The reports cited in this EA and additional project documentation can be obtained from the project file located at the Ninemile Ranger District in Huson, Montana.

¹ 36 CFR 220.6(e)(10) as of July 24, 2008

² CEQ is responsible for coordinating federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives.

NEED FOR ACTION

The purpose of this project is to reduce the hazardous fuels within the treated areas and make progress towards achieving Missoula County Community Wildfire Protection Plan goals. The area is located near Huson, Montana and is considered to be within the wildland urban interface. There are approximately 16 residences within a two mile radius of the project area. The fuels specialist and the district silviculturist determined this area to be high priority for immediate treatment due to the fuels conditions and surrounding infrastructure. The Barrette Creek Fuels Reduction Project is located adjacent to the Starkhorse Timber Sale which was completed in 2003. The Barrette Creek Project would connect together the Starkhorse Timber Sale and the Upper Ninemile Fire Complex of 2000. The combination of previous fuels treatment and wildland fire provides a defensible fire suppression area for residents in the Ninemile Valley community. It was determined that fuels reduction treatments would reduce fire effects within the treated stand and increase safety and efficiency of initial attack fire resources working to contain a fire once started. The stands selected for treatment are strategically located to best meet project objectives.

The project area is located within Management Area 16, 23, and 25. The goals for Management Area 16, 23, and 25 are to provide for healthy stands of timber and optimize timber quality by developing an equal distribution of timber age classes. In addition, MA 16 focuses on providing wildlife habitat and maintaining water quality and stream stability. Management Areas 23 and 25 both strive to achieve the visual quality objectives of Partial Retention. They also provide forage for deer and elk, and provide for increased wildlife habitat. The Lolo National Forest Plan provides the overall guidance for management of the Lolo National Forest. (Lolo National Forest Plan, 1986)

The treatment areas are uncharacteristic in their structure, composition, and function as compared to the historic range of variability. The primary cause stems from logging that occurred during the early 1900's by the Anaconda Copper Mining Company, with subsequent cause from exclusion of wildland fires. There are little to no occurrences of late succession stands (i.e. old growth) or individual trees in VRU's that historically had significant representations. There are no mosaics of multiple age classes other than the second growth over story with encroaching tolerant under stories. Representation of seral species are lacking in the under stories. Stands are functioning under increased stress which is reflected in the recent perturbations by bark beetles. Wildland fires would tend to be higher intensities resulting in larger areas of increased burn severities, uncharacteristic to historic occurrences.

A Fire Regime Condition Class analysis was conducted for the Barrette Creek Fuels Project. This analysis was conducted in the spring of 2005, and included 25,159 acres of the Burdette McCormick Hydrologic Unit. The FRCC analysis identified 5 Biophysical Stratifications. All five strata were either Fire Regime I (Frequent Surface and Mixed) or Fire Regime III (Infrequent Mixed and Surface). FRCC analysis showed that all strata and 100% of the project area had a moderate to high departure from the historic range of variability with

regards to either vegetative composition/structure or fire frequency, and in some cases both. This departure is due to the issues discussed in the site and stand data summarized above and more thoroughly in the Vegetation Report in the official project record.

The selected actions will mechanically treat the project area to lessen the level of departure primarily with regards to vegetative structure, stocking, and composition. Although proposed treatments will not bring the project area to a condition class 1, within condition class improvements will be significant.

More than 80 years of fire research shows that fuel, topography, and weather combine to determine wildfire intensity (the rate at which fuel is consumed and heat is generated) and severity (the damage to forest components). Of these factors, fuel (vegetation) is the only one that can be treated. Models, field observations, and experiments indicate that for a given set of weather conditions, fire behavior is strongly influenced by fuel structure and composition (Graham et al. 2004). The most appropriate fuel treatment strategy is often thinning (removing ladder fuels and decreasing tree density) followed by prescribed fire, piling and burning of fuels, or other mechanical treatments that reduce surface fuel amounts. Thinning treatments that are followed by reduction of surface fuels can significantly limit fire spread under wildfire conditions (Graham et al. 2004).

The objective of this project is not to eliminate wildland fire from the landscape, which would likely be impossible. The intent is to modify fire behavior through hazardous fuels reduction to limit the undesirable effects of fires on the ecosystem and human development. Fuel treatments are not intended to guarantee benign fire behavior but can reduce the probability that extreme fire behavior will occur. Weather, drought, and topography are factors that humans cannot influence.

This decision to implement this project is based in response to the Healthy Forest Initiative of 2003, which in part calls for reducing the risk of catastrophic wildland fires. It also responds to the National Fire Plan through Key Point #3: Hazardous Fuels Reduction, which states that “The Forest Service will work with State Foresters, other state and federal agencies, and local communities to identify both communities at risk and projects to reduce the potential for wildland fire damage. Most projects will focus on the wildland/urban interface.”.

Public Involvement

Public involvement included listing the project in the Lolo National Forests NEPA Quarterly Project List on March 15, 2005. Additionally, direct mailings were sent to 47 individuals, agencies, and organizations on April 5, 2005, collaboration with citizens of the Ninemile Valley, and through meetings and two site visits. There were no written comments received during the scoping or comment periods. The only comments came through verbal communication with the specialists during the open house and the field trip. All comments were positive and supportive of the project.

Collaboration

On March 30, 2005, a public meeting was held for the Barrette Creek Fuels Treatment Proposal. Focus of the meeting was to initiate the collaborative process with the public and

introduce interested parties to the objectives of the project. The meeting included many members of the Inter-Disciplinary Team planning the project as well as other District personnel. Maps of the project were provided to the eight attendees and the silviculturist led a discussion about the proposed vegetation treatments for the project.

On April 28, 2005, a site-visit to the proposed Barrette Creek Fuels Project was held and fifteen members of the public attended. This field trip provided an opportunity for participating members to walk through the project area and learn about proposed treatment options. Attendees were encouraged to ask questions and provide comments and feedback to Ninemile District representatives. The field topics included proposed unit boundaries, commercial harvest proposals, and potential prescribed fire treatments.

Based upon the ruling from the Earth Island Institute case regarding Categorical Exclusions, the project was subject to comments through a Legal Ad placed on November 27, 2005 in the Missoulian Newspaper. No additional comments were received.

Issue Resolution

The Forest Service found no significant issues or unresolved conflict concerning alternative uses of available resources. No additional issues were identified that would require another alternative to address them. Throughout the planning process and scoping of this project all public comments have been supportive.

ALTERNATIVES

Section 102 (2)(E) of the National Environmental Policy Act (NEPA) requires the Forest Service to study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources. The Forest Service did this with the No Action and Proposed Action alternatives described below. Design features were developed upfront to anticipate and reduce the effects from the proposed action on the environment and address and resolve the issues described above.

ALTERNATIVE CONSIDERED BUT ELIMINATED FROM DETAILED SURVEY

Alternatives for the Barrette Creek Fuels Reduction project were considered and eliminated from detailed study by the USDA.

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.

This alternative continues the standard protection and maintenance activities such as fire suppression, access management, and routine scheduled road maintenance. Ecosystem

processes such as vegetation succession with fire exclusion would continue their current trends. No fuel reduction activities would occur. Taking no action leaves the existing stand conditions at high risk of uncharacteristic stand replacement wildfire and bark beetle predation.

PROPOSED ACTION

The proposed action would reduce hazardous forest fuels on approximately 685 acres, in the Wildland Urban Interface, including salvage of bark beetle caused tree mortality. Improvement cutting techniques will be implemented over 11 units on 655 acres of this project. Improvement cutting is a combination of thinning from below and crown thinning to reduce density to a varying range of 70 -100 square basal area per acre. This range represents the level necessary to reduce bark beetle risk of Ponderosa and Lodgepole Pine, and Douglas-Fir from high to moderate, and to reduce crown bulk density to moderate risk of sustained crown fire. The remaining 30 acres would be treated through non-commercial methods, including slashing under story ladder fuels and hand piling of non-merchantable material. Landing piles and hand piles in the units would be burned when weather and fuels conditions were favorable. This treatment method would be implemented along the four miles of Lolo National Forest and private property boundaries. Reference Table 1 and the treatment descriptions below for a summary of proposed fuel reduction activities.

The common target stand objective along the National Forest boundary with private property is a forested environment with composition, structure, and processes similar to the historic conditions but that provide for reduced risk of intense wildland fires, improved wildland fire suppression, public and firefighter safety, protection of private property, while providing for the broad range of other National Forest resources.

If needed, approximately 800 feet of temporary road would be constructed down the ridge from road 5520 to access treatment Unit 7 (please see map in Appendix A). This temporary road would be developed to shorten skidding distances. Very little earthwork would be required for this road since it would be constructed primarily on flat ground. After use, the road would be re-contoured and the road prism at the intersection with National Forest Service Road 5520 would be restored.

Additional road management changes would involve the implementation of a closure level 3-S on roads 16225, 16226, 16222, and 16221. Under a 3-S closure, mitigation techniques are applied to a road to render it self maintaining for a period of storage generally up to approximately 20 years. Best management practices would be implemented for all proposed closures. The roads remain on the National Forest road system during their period of storage and may be used again. (Reference the project file for Barrette Creek Fuels Reduction Project Road System, page 6)

Table 1: Fuel Treatment Summary (please see map in Appendix A)

Unit	Activities	Logging System	Acres
1	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Pile landing slash, Burn piles	Tractor	18
2	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Pile landing slash, Burn piles	Tractor	23
3	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Pile landing slash, Burn piles	Tractor	70
4	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Salvage of bark beetle caused tree mortality, Seed Tree Cut with Reserves, Pile landing slash, Burn piles	Tractor	85
5	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Pile landing slash, Burn piles	Tractor	110
7	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Pile landing slash, Burn piles	Tractor	35
8	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Salvage of bark beetle caused tree mortality, Seed Tree Cut with Reserves, Pile landing slash, Burn piles	Tractor	125
9	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Salvage of bark beetle caused tree mortality, Seed Tree Cut with Reserves, Pile landing slash, Burn piles	Tractor	117
10	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Pile landing slash, Burn piles	Tractor	25
11	Improvement cutting via tractor yarding, Slash of under story Douglas Fir, Pile landing slash, Burn piles	Tractor	47
5 Portions along NF/Private property boundary	Slashing under story Douglas Fir, Hand pile, Burn hand piles	N/A	30
TOTAL			685

Non-commercial Treatments: 30 acres of the proposed treatment acres.

Five areas are designated along the National Forest and private property boundaries which will receive non-commercial thinning and slashing of the under story trees to reduce ladder fuels. Slashing of Douglas Fir under 5 inches diameter breast height (DBH) and over 2 feet in height leaving only 50 trees per acre will be implemented. In clumps of under story trees with preferred species (PP and WL), thinning of this preferred species to an average of 12 X 12 foot spacing will be completed. The tree spacing can vary by 50% of the distance to allow for a greater selection of leave trees and to provide a more natural appearing and diverse stand. Leave trees will have healthy crowns, good form, straight stems, and free of damage. There is a maximum stump height of four inches with no live limbs or pungy sticks. Desire is to keep any existing game trails, foot paths, and draws clear of slash. Hand piles will be created and will be burned to dispose of the resultant slash. The intent of this treatment is to reduce the in-growth of Douglas Fir under story trees, along National Forest and private property boundaries, through the use of thinning, slashing, and pile burning.

Commercial Treatments: 655 acres of the proposed treatment acres.

In units 1-11, improvement cutting will be implemented, via tractor yarding, to reduce crown bulk density, percent crown cover, and ladder fuels including small round wood 4 to 7 inches DBH. In these units, non-commercial Douglas Fir less than 5 inches will be slashed to reduce crown bulk density and ladder fuels. Also in units 1-11, the salvage of bark beetle killed trees will be practiced to reduce future large woody fuel loadings. In units 1-11, the purchaser will whole tree yard tops to landings for inclusion as hog fuel and to reduce fuel loadings. Landing piles will be burned to reduce the remaining slash from harvest. While prescribed fire would generally be the preferred method overall for reducing under story fuels, the small size, aspect, and proximity to private lands dictate mechanical means.

Design Features

Water and Fish – Aquatic Environment

1. The project area is drained by 5 second order streams, including Barrette and Moncure Creeks, and three unnamed streams running between Units 3 and 10, Units 7 and 8, and Units 8 and 9, named in order from south to north as stream A, B, C.(Reference Table 2 of Barrette Creek Hydrology, page 3) Streamside buffers (riparian habitat conservation areas) consistent with the Inland Native Fish Strategy (INFISH) would be applied: Category 1 streams Barrette Creek and Moncure Creek are fish bearing and the buffers will be 300 feet; Stream B is a category 2 stream and will have 150 foot buffer, Stream A and C are category 3 streams and will have a 100 foot buffers. All streams are shown on project maps as outside any treatment units, and are assumed no entry, no treatment zones. An exception is a portion of stream C which is shown running through the northwest corner of Unit 8. A 100 foot no treatment buffer should be applied to this portion.(Reference Table 2 of Barrette Creek Hydrology, page 3-4) If additional channels or wet areas are identified, appropriate INFISH buffers would be utilized through consultation with the fisheries biologist.
2. No machine refueling would occur within Riparian Habitat Conservation Areas.

Soils & Roads

3. Ground based skidding operations will occur on dry, frozen, or snow covered (18 inch minimum depth) soil to avoid compaction. Ground based equipment activity will be halted to protect soil resources if one inch of precipitation or more is received in a 7-day period.
4. Utilize existing roads and un-classified two track spur roads for skidding, hauling, and decking when practical. Designate all additional skid trails and landings.
5. Log landings will be rehabilitated by de-compacting, seeding with a certified weed-free mixture and scattering woody/organic debris over the landing area.

6. The temporary road in Unit 7 would be rehabilitated by re-contouring to the natural contour, seeding and placing woody/organic/slash debris across areas of disturbed soil.
7. Roads 16225, 16226, 16222, and 162211 are to receive a level 3-S road closure. Techniques for this closure may involve ripping (6-12 inches) of the road surface to allow for water infiltration, re-contouring or an earth barrier at intersections, installation of water bars, culvert removal at streams, seeding, fertilizing and treating for noxious weeds. Ripping encourages more rapid re-vegetation so over a period of time these roads may be more overgrown with vegetation than they are now. For specifics regarding BMP's reference Table 6, "Fisheries Affected Environment and Environmental Consequences", page 12.
8. Tractor logging and ground based equipment will be prohibited on slopes with a sustained grade greater than 30 percent.
9. Skid trails and burned landing piles must be seeded with an approved certified weed-free seed mixture within seven days of work completion or scarification.
10. Coarse woody debris (CWD) greater than 3 inch diameter will be left on site for soil productivity as outlined in the Lolo National Forest Coarse Woody Debris Guide (2006).

Weeds

A number of preventative measures would be taken to reduce the risk of weed introduction and spread in accordance with the 2007 Lolo National Forest Integrated Weed Management EIS and the Forest Plan Amendment 11. Measures include:

11. Prior to mobilization and transport to the project area, all heavy equipment used for harvesting activities must be washed with a high-pressure washer to remove all potential seed sources or plant parts (including dirt and grease) that may contain noxious weed seeds.
12. Disturbed areas including: prominent skid trails, landings, and burned slash piles must be seeded with an approved certified weed-free seed mixture within seven working days of work completion or scarification. The use of fertilizer may be required on disturbed sites lacking nutrient bearing soils that are seeded. Additionally, the use of certified weed-free straw may be deemed necessary to meet reclamation objectives for disturbed area that are seeded.
13. Haul routes, landings, and disturbed areas will need to be treated with herbicide prior and post disturbance and hauls.
14. Post implementation monitoring of noxious weed infestations is required in order to establish the level of herbicide treatment needed for haul routes, landings, and other

disturbed areas is necessary. Further potential herbicide treatments for this project will be covered under the 2007 Lolo National Forest Integrated Weed Management EIS and the Forest Plan.

Wildlife

15. These stands are not considered old growth, however, some scattered remnant older mature trees are present and will be protected. Retain all individual trees meeting old growth and trees over 19 inches DBH for recruitment old growth (unless significant disease, dysgenic, or physical conditions warrant removal for stand health and safety).
16. Lolo Forest snag and large woody debris guidelines for fire groups 4 and 6 sites require the retention of 1-2 snags/substitutes per acre, 8-12 live replacements per acre; for fire group 11 sites (Grand Fir & Western Red Cedar) require the retention of 4-12 snags/substitutes and 8-12 live replacements per acre.
17. Snags would be retained unless they are a direct hazard to workers. All snags felled for safety would remain on site.
18. Lolo Forest large woody debris guidelines for fire group 4 sites require the retention of 5-12 tons per acre of large dead and down woody debris; for fire group 6 and 11 sites at 12-20 tons per acre.
19. Salvage of mortality bark beetles will result in openings in at least Units 4, 8, and 9. These will need to be surveyed after harvest to assess the need for artificial regeneration or the preferred opportunity for natural regeneration with subsequent reforestation monitoring surveys.
20. Management activities would be altered, if necessary, to protect Threatened, Endangered, and Sensitive (TES) species located during implementation.

Visuals

21. Mark leave trees in a random pattern so that the resulting stand appears open in some areas and denser in other.
22. Along Forest Service Road #5520, for stumps visible from the road, place stump marks of cut trees facing away from the roadway.

Prescribed Burning

While prescribed fire would generally be the preferred method overall for reducing under story fuels, the small size, northerly aspect, and proximity to private lands dictate mechanical means. Hand-piles will be burned in the five designated areas along private property

boundaries. Landing piles will be burned out of the units when all harvesting activities are complete.

23. Pile burning will only occur when weather, fuel conditions, available resources, and smoke conditions are favorable.

24. Landing piles must be seeded with an approved certified weed-free seed, within seven working days of completion.

Mitigation Measures

The proposed action includes design features to avoid the need for additional mitigation. No mitigation actions are required to implement the proposed action because analysis of effects did not indicate a need for any mitigation.

ENVIRONMENTAL EFFECTS _____

This section provides a summary of the environmental effects of the proposed action. It provides the necessary information to determine whether or not to prepare an environmental impact statement. The associated Finding of No Significant Impact (FONSI) discusses whether the proposed action has significant effects. Further analysis and conclusion about the potential effects are available in reports for each resource and other supporting documentation cited in those reports. These documents are contained within the project file, which is available at the Ninemile Ranger District office in Huson, Montana.

Consistent with 36 CFR 220.4(f) and CEQ guidance, the past, present, and reasonably foreseeable actions were considered for analysis of cumulative effects where appropriate for each resource. Past actions considered in cumulative effects analysis include those that contributed to establishing the baseline conditions of the project area today. Past management activities within the project area include timber harvest, road development, prescribed burning, and pre-commercial thinning. Since the early 1900's logging completed by the Anaconda Copper Mining Company resulted in the future uncharacteristic vegetative structure to the project area. Collected data suggests a portion of the project area was harvested between 1978 and 1994. Evidence, from soils data, is that the entire project area has been harvested at least once. This accounts for little to no occurrences of old growth within the Barrette Creek Fuels project. Most recent fire history shows the 1910 wildfire being included within the project perimeter. This is the only significant fire on record for the project area. Detailed information regarding these and other past management activities that occurred within the project area is contained in the project file.

Large scale wildfires impacted adjacent lands to the project area. The Upper Ninemile Complex of 2000 burned 27,000 acres in the upper Ninemile Valley. Currently outside the project area, the Frenchtown Face Timber Sale, located on the east side of the Ninemile Valley, southeast of the Barrette Creek Fuels Reduction project area is presently under contract. Both of these events have or will contribute to the overall watershed improvements

to the Ninemile Creek watershed. (Reference Fisheries EA pages 12-14) The Starkhorse Timber Sale located directly south of the project area was completed in 2003. The joining of these two fuels projects will lead to a continued stretch of defensible space along private property in the Ninemile Valley community.

Fuels

The purpose and need for the proposed fuels treatments in the Barrette Creek Fuels Reduction Project is directed at the wildland urban interface hazardous fuels conditions. The primary and secondary objectives are to improve fire protection along private property and National Forest boundaries, reduce the potential for high severity fires stand replacing crown fires within the low elevation Ponderosa Pine and Douglas Fir forests, maintain and improve forest health, and reduce the risk of damage from insects and disease while maintaining a natural appearing landscape. The removal of ground and ladder fuels along with separation of tree crowns would decrease the chance of crown fire. Also it would lower the fireline intensity and change the fire behavior to enable suppression forces to fight a fire effectively. The proposed treatment objectives would have no significant adverse impacts or adverse cumulative effects on the project area. (Barrette Creek Fuels Vegetation Report, pages 2 & 7, 2005)

There could be an increase in fire hazard during the period of time between thinning operations and piling (typically no longer than one year). Where possible, the tops of trees would be removed with the trees cut, which would minimize the amount of slash on the ground and the potential fire hazard within the treatment units.

A Fire Regime Condition Class analysis was done in 2005 for the Barrette Creek Fuels project area. All data showed the area to be either Fire Regime I or Fire Regime III. The data showed that the entire project area has a moderate to high departure from the historic range of variability with regards to either vegetative composition/structure or fire frequency, and in some cases both. Proposed fuel treatments would be instrumental in moving treated areas towards stands within their natural (historical) range of vegetation characteristics; fuel composition; and fire frequency, severity, and pattern; and the risks of loss of key ecosystem components are low. Although proposed treatments will not immediately bring the project area back to a natural condition, the within condition class improvement will be significant. Project activities would mechanically treat 655 acres and manually treat 30 acres in proximity to homes and private land. (Barrette Creek Fuels Vegetation Report, 2005)

The Forest Service would continue to suppress wildfires within the project area because of the proximity to homes. In this project, the strategic placement of fuel reduction treatments, adjacent to private property, would help to modify fire behavior and provide opportunities for tactical advantages during fire suppression actions before fires spread to private property. Future slashing and piling treatments would be necessary to maintain the reduced fuel conditions that would be achieved by this project.

The proposed action would connect the Barrette Creek Fuels Project with the Starkhorse Timber Sale, completed in 2003, and the Upper Ninemile Complex of 2000. The

combination of the fuels projects and wildland fire provides a more defensible fire suppression area for about six miles along the west side of the Ninemile Valley. Future harvest within the project area will enhance the fuel continuity by reducing ground and ladder fuels and increasing the separation of tree crowns.

Air Quality

Under-story prescribed burning is not planned for the Barrette Creek Fuels Reduction project. However, hand-pile burning would occur on approximately 30 acres of this project. These hand piles would be created adjacent to private property which borders National Forest lands. The hand-pile burning treatment would be accomplished over multiple days. Most burning would occur in the fall on days when ventilation and smoke dispersion is favorable. Smoke impacts to the residents adjacent to the project would be temporary and minimized through daily monitoring of airshed conditions. The State of Montana has implemented a certified smoke management system, which is administered through the Montana/Idaho Airshed Group. As a member of the Airshed Group, the Forest Service submits burn requests to the Smoke Monitoring Unit, which coordinates and approves prescribed burning activities in a manner designed to meet ambient air quality standards.

Smoke from landing piles and hand-pile burning contains particulate matter that would temporarily decrease air quality within and downwind of piled units. In this region, prevailing winds tend to disperse smoke to the northeast, which would disperse smoke away from residences adjacent to the project area and toward the Flathead Reservation. Nighttime and morning inversions may capture residual smoke from hand-piling; however, the resultant public health impacts are expected to be minimal.

Other prescribed burning on other federal, state, and private lands within the affected airshed that may occur at the same time as burning activities for this project would be monitored cumulatively on a daily basis and would contribute to the local Smoke Monitoring Unit's decision to approve a prescribed burn request on a given day. Wildfires occurring outside or inside the project area would generate smoke during the summer months and may affect air quality during that time period. (Refer to Barrette Creek Fuels map to locate areas containing hand piles to be burned.)

Threatened, Endangered, and Sensitive Plants

The Endangered Species Act (ESA, PL 93-205), Forest Service Manual directions 2670.11, 2670.21, 2670.31, and Lolo National Forest Plan standards 24 and 27, all require that the Lolo National Forest not only manage for endangered, threatened, and proposed species, but

also recover them. The Endangered Species Act states that all Federal departments and agencies shall seek to conserve endangered species and threatened species. The Forest Service Manual directs the forests to manage National Forest System habitats and activities for threatened and endangered species to achieve recovery objectives so that special protection measures provided under the Endangered Species are no longer necessary. The Lolo Forest Plan follows this direction and states all threatened and endangered species occurring on the Lolo National Forest will be managed for recovery to a non-threatened status. No forest management areas apply to endangered, threatened, and proposed species in the Barrette Creek Fuels project area. A recovery plan has been written for each endangered or threatened species that may occur in the project area. Recovery areas for listed species currently do not exist within the project area. Formal consultation with the U.S. Fish and Wildlife Service is only required when a project may affect a listed species (50 CFR 402.14). In summary, the Barrette Creek Fuels project would have no effect on any federally listed endangered or threatened plants. (Reference Vegetation for sensitive plant report, EA, pages 15, 16, 17)

Heritage Resources

The Barrette Creek Fuels Reduction project would have no direct, indirect, or cumulative effects on significant heritage resources. No inventory was necessary due to the project area having a low probability for heritage resources. No known American Indians or Alaska Native religious or cultural sites were identified. There are no known heritage resources that would be impacted by the project. If a site is located before or during implementation its eligibility status will be determined in consultation with MTSHPD prior to implementation or it will be managed as eligible and avoided during implementation. (Archaeology Report)

Fisheries

The Barrette Creek Fuels project would have no direct, indirect, or cumulative effects on bull trout, threatened species, or westslope cutthroat trout, sensitive species. Only two individual bull trout have been documented in recent years, 2001 and 2005. Both observations were in the far upper end of Ninemile Creek near the confluence of Eustache and Devils Creek and in Devils Creek. In 1996, Montana Fish, Wildlife and Parks also documented a small resident bull trout population in upper Ninemile Creek (USDA Forest Service 2000). Extensive sampling throughout the watershed is extremely limited and it is unknown whether or not a migratory bull trout component currently uses Ninemile Creek. There is a good probability that in some years small numbers of these fish will move into and use upper Ninemile Creek and its tributaries. There is no fish barrier at the mouth of Ninemile Creek which allows for fish passage from the Clarkfork River, if they choose to immigrate.

Brook, brown, and rainbow trout dominate lower and mid sections of main Ninemile Creek and lower sections of Moncure and Barrette Creeks. However, only westslope cutthroat trout were identified in Moncure Creek, above Forest Service Road #5520, where there is at least a partial barrier to fish movement upstream and may represent a blockage to non-native fish

moving further up the system. Brook trout in tributaries pose a competitive threat to westslope cutthroat trout production (Griffith 1986).

The Barrette Creek Fuels project will have an insignificant effect to bull trout and westslope cutthroat trout because the duration of the proposed project, 1-3 years, is less than that of a bull trout and westslope cutthroat trout generation, approximately four years (Young 1995). Also the amount of sediment produced from road reconstruction is expected to be minimal, having no adverse effect to native salmonids or their habitat. Finally, the implementation of BMP's will reduce and minimize the impacts from yarding and hauling.

A history of several large scale events and projects in the past, present, and proposed actions of the future in the Ninemile drainage should be mentioned. The fires of 2000 that burned upstream from the project area affected the main stem Ninemile for sediment. The fire based sediment input has diminished significantly since 2001 and will continue to do so (USDA Forest Service 2002). Fifty miles of road for a total of 215 miles were decommissioned in 2005 as part of the post burn EIS. All of the work occurred upstream of the Barrette Creek Fuels project area and it will have a substantial benefit to fish habitat and populations. Associated work, in the Ninemile Creek Watershed, is the replacement of 7 large fish passage barriers, the complete removal of 7 other major stream crossings, and approximately 50 smaller stream channel crossings which all will have a cumulative fish and fish habitat benefit.

The Frenchtown Face project is planned for the lower half of the Ninemile drainage, across from the Barrette Creek Fuels project. Under this project, if implemented to its maximal extent 88 miles of road, 34 stream crossings, and 8 large pipes that are partial fish passage barriers will be replaced or removed. These activities will substantially contribute to an improvement to the watershed and fish benefit in the entire Ninemile drainage.

Approximately 1.3 miles of mined stream channel has been restored in Eustache Creek. This is located at the head end of the Ninemile watershed and in an important native fish production area, including bull trout.

Due to the relatively small area of proposed fuel treatment the negative cumulative effects of the Barrette Creek Fuels project on the Ninemile watershed are insignificant. All project treatment activities would occur outside of stream buffers prescribed by the Inland Native Fish Strategy (INFISH) which are designed to protect critical riparian values, and existing and future fish habitat. All of these actions are expected to have long-term complementary effects to this project and the overall fish and watershed health of the Ninemile watershed. The actions are not expected to have a deleterious interactive effect with those cumulative effect actions described above and will not have a negative effect on bull trout and westslope cutthroat trout and fish resources in downstream habitats of the main Ninemile Creek. (Barrette Creek Fuels, Ninemile Watershed, Fisheries Affected Environment and Environmental Consequences, pages 5, 10, 14, 15)

Water Quality

The project area is drained by 5 second order streams, including Barrette Creek and Moncure Creek, and three unnamed streams. These streams are a part of the Ninemile Watershed which is a tributary to the middle Clark Fork River. There are no domestic or municipal uses of surface water within the project area. Ninemile Creek, to which all project area streams are tributaries, is a 2002 303(d) listed watershed under the Clean Water Act. The Ninemile Total Maximum Daily Load (TMDL) Plan was completed in 2005, by the Montana Department of Environmental Quality, and concluded the project would not impair the water quality of streams in and surrounding the project area (Montana Department of Environmental Quality, 2005.). All proposed fuel treatments for the Barrette Creek Fuels project would occur outside of stream buffers prescribed by the Inland Native Fish Strategy (INFISH) to protect streams from non-channelized sediment inputs. (Reference Table 2 of Barrette Creek Hydrology, pages 3-4) Research studies indicate that non-channelized sediment flow rarely travels more than 300 feet and that 200-300 foot riparian “filter-strips” are effective at protecting streams (Burroughs and King 1989). Field reconnaissance of the unit verifies there will be no adverse sediment routing or water quality effects to Ninemile Creek from this project.

Roads used for hauling forest products would be maintained commensurate with use. Road BMP work will improve road drainage, reduce surface erosion potential and reduce potential sediment routing. Subsequent roads mitigation, following the project implementation decommissioning will reduce risk of a culvert failure, reduce road density and reduce surface erosion potential providing a long term watershed benefit. Based on field observations, existing condition and required mitigation the Barrette Creek Fuels Reduction project will meet state water quality and Lolo National Forest Plan standards. (Watershed Report on the Barrette Creek Fuels CE, page 7)

Vegetation – Old Growth, Plant Species

Silviculturist surveys of the Barrette Creek Fuels Reduction project concluded that the treatment areas are uncharacteristic in their structure, composition, and function as compared to the historic variability. There are little to no occurrences of late succession stands, old growth, or individual trees within any of the vegetative response units, VRU’s. There are no mosaics of multiple age classes other than the second growth over story with encroaching tolerant under stories. (Barrette Creek Fuels Vegetation Report, page 5, 2005) Treatment will include improvement cutting on 655 acres, which will improve the composition, structure, condition, health, and growth of even-or-uneven aged stands. Additional treatment for the project is under story slashing of ladder fuels, which typically consists Douglas-fir trees less than 5 inches diameter breast height. Treatments would have no impact or cumulative effect within Lolo Forest Plan allocated old growth Management Area 21.

Field surveys were completed on the Barrette Creek Fuels Reduction project evaluating the risk of adverse effects on 35 sensitive plants and two threatened plant species. The 2004 Regional Forester’s sensitive plant list was used for this evaluation. Treatment units were surveyed in 2005, and concentrated in habitat types with high potential for sensitive plants. Currently, no federally listed known or suspected endangered plant species or critical habitat

occurs on lands managed by the Lolo National Forest. (Barrette Creek Fuels Reduction Biological Evaluation, page 2)

**Federally Listed Plant Species Which May be present on the Lolo N.F.
(Barrette Creek Fuels Reduction Biological Evaluation, page 2)**

Name	Scientific Name	ESA
Water Howellia	Howellia aquatilis	Threatened
Spalding's catchfly	Silene spaldingii	Threatened

Water Howellia

Water Howellia is an annual plant that occurs in small, vernal, freshwater glacial ponds and oxbow sloughs in the valley zone. Habitat for this plant occurs on the Seeley Lake Ranger District, Lolo N.F. The Barrette Creek Fuels project area and areas surrounding the project do not contain any suitable habitat for the water howellia. Due to lack of available habitat in the project area, the treatments for this project will have no impacts or cumulative effects upon this plant species. (Barrette Creek Fuels Reduction Biological Evaluation, page 2)

Spalding's catchfly

Spalding's catchfly is a perennial plant primarily restricted to mesic grasslands in southeastern Washington, northwestern Montana, and adjacent portions of Idaho and Oregon. It is typically associated with grasslands dominated by native perennial grasses such as Idaho fescue or rough fescue. Habitat for this plant occurs on/near the Plains/Thompson Falls Ranger District, Lolo N.F. The Barrette Creek Fuels project area and areas surrounding the project do not contain any suitable habitat for the spalding's catchfly. Due to lack of available habitat in the project area, the treatments for this project will have no impacts or cumulative effects upon this plant species. (Barrette Creek Fuels Reduction Biological Evaluation, page 2)

**The following species is listed as sensitive on the Lolo National Forest and may be present or suitable habitat may occur in the project area:
(Barrette Creek Fuels Reduction Biological Evaluation, pages 2-3)**

Name	Scientific Name	Presence
Clustered Lady Slipper	Cypripedium fasciculatum	Possible

Clustered Lady Slipper

Clustered lady Slipper has been found on the Ninemile, Superior, and Plains/Thompson Falls Ranger Districts on the Lolo N.F. It is found mostly in Douglas Fir/ninebark and Grand Fir/ninebark habitat types but also found in Grand Fir/twinflower, Grand Fir/queencup

beadlily, and Douglas Fir/pinegrass habitats. Surveys have documented the closest clustered lady's slipper to be in the McCormick Creek drainage, approximately 2-3 miles from the Barrette Creek Fuels project area. Habitat type for this species is present in the Barrette Creek Fuels project area, however, no clustered lady's slippers were found inside project boundaries or outside immediate areas. As a result, the proposed project treatments will have no impact or cumulative effects on this species or their habitat. (Barrette Creek Fuels Reduction Biological Evaluation for Sensitive Plants, pages 2-3)

Visual Resources

The project would be consistent with the management direction in the Lolo National Forest Plan. All proposed activities were designed to meet Forest Plan Visual Quality Objectives of Modification/Maximum Modification and partial Retention within 3 years. Short term visual effect of the logging operation, temporary road construction, and pile burning will be noticeable along Forest Service Road #5520 and from private property bordering the units. There would be no long-term visual effects from this project and will go unnoticed within three years of project completion. (Scenery Management Report)

Soil Productivity

The soil surveys and assessment determined that soil quality guidelines would be met. Regional guidelines for soil disturbance from proposed activities, in combination with existing soil conditions, state that no more than 15 percent of an activity area should be in detrimental condition. In order to meet these objectives the following mitigations need to be implemented: because of the degree of residual disturbance from past harvest, skid trails would need to be designed and designated as much as possible to previous routes, to minimize the amount of ground impacted and to meet regional standards. Due to extreme stoniness of the soil, mitigation of major skid trails, such as ripping or sub-soiling is inadvisable. Tractor logging has the potential to cause soil compaction and displacement. An average of 100 feet spacing between skid trails would result in 11% of the project area being impacted by ground-based timber harvest, tractor logging. An additional 2-3% of the project area may be detrimentally disturbed by landing piles in the units. However, the Design Features 3-10, listed above, and best management practices, BMP's, will be used to minimize soil disturbance and ensure that productivity is maintained. Coarse woody debris would be left on site for soil productivity as outlined in the Lolo National Forest Down Woody Material Guide (2006).

The effects of proposed treatments suggest no adverse effects downstream of the project area. No direct or indirect impacts to soil productivity are anticipated. Cumulative effects are assumed mitigated by time and space. (Barrette Creek Hydrology and Soils Report, 2005) Monitoring of previously harvested timber sale units on the Lolo National Forest suggests that detrimental soil disturbance dissipates over time and does not irreversibly damage soil (LNF unpublished data 2007).

Wildlife

The proposed action is consistent with applicable Forest Plan goals, direction, and standards. The proposed activities would have no effect on any federally listed threatened or endangered species and would not reduce the viability of any species identified as sensitive in the Forest Service Northern Region. The proposed action complies with applicable conservation strategies for wildlife species and is consistent with the Endangered Species Act, the National Forest Management Act, and other laws providing direction and requirements for the management of wildlife species and habitat. The Barrette Creek Fuels project would have no effects to bald eagle, gray wolf, grizzly bear, lynx, Coeur d'Alene salamander, black-backed woodpecker, flammulated owl, northern goshawk, Townsend's big-eared bat, wolverine, western toad, or northern leopard frog.

Threatened and Endangered Species

Section 7 of the Endangered Species Act (ESA) directs federal agencies to ensure that actions authorized, funded, or carried out by them are not likely to jeopardize the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitat. The proposed action is consistent with ESA.

The U.S. Fish and Wildlife Service determined that the following listed wildlife species may be present on the Lolo National Forest (USFWS 2005a):

**Federally Listed Species Which May be present on the Lolo N.F.
(Barrette Creek Fuels Wildlife Report, page 2)**

Common Name	Scientific Name	ESA Status
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Threatened
Northern Rocky Mountain Gray Wolf	<i>Canis lupus</i>	NW MT- Endangered SW MT- Experimental
Grizzly Bear	<i>Ursus arctos horribilis</i>	Threatened
Canada Lynx	<i>Lynx Canadensis</i>	Threatened

Gray Wolf

The U.S. Fish and Wildlife Service does consider wolves potentially present on all Lolo National Forest lands (USFWS 2005a). The project area is north of Highway 12 where wolf populations are considered to be naturally re-colonizing and are not part of the experimental population. The Ninemile wolf pack ranges widely across the valley and there is some potential for the wolf pack to use the project area. The U.S. Fish and Wildlife Service estimated that the Ninemile Pack consists of at least three adults and possibly five pups in the mid-year 2005 report (USFWS 2005b). There are no known den or rendezvous sites located within the project area.

The two main factors in wolf habitat management are maintaining prey populations and reducing human contact that may result in direct mortality (Tucker et al. 1990). Prey populations are primarily deer in the project area and human contact is mainly a factor of open road access. The project will slightly reduce hiding cover but will also increase forage

production for white-tailed deer. The open road density will not change because any roads that are opened during project implementation will be closed after the project is completed. The probability of human contact will remain the same because the open road density will remain the same. Because there is no impact on prey populations and the open road density stays the same, this project will have no effect on gray wolves. Also, because the project has no effect on gray wolves, there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, pages 2-3)

Canada Lynx

The proposed action would have no direct, indirect or cumulative effects on Canada lynx. Lynx are a wide-ranging species which feed primarily on snowshoe hares and other small prey such as red squirrels, grouse, and ground squirrels. (Ruediger et al. 2000) They generally inhabit higher elevation Lodgepole Pine and Subalpine Fir forest types, using younger stands for foraging and older stands for denning. The Barrette Creek Fuels project area is not located within a lynx analysis unit and does not contain suitable lynx habitat. As a result, this project will have no direct effect on lynx and there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, page 4)

Grizzly Bear

The project area does not fall within any of the following grizzly bear recovery areas: Northern Continental Divide Ecosystem (NCDE), Cabinet Yaak Ecosystem, or proposed Bitterroot Grizzly Bear recovery area. Because the project is not within a recovery area, no bear management units (BMU's) or bear management analysis areas (BMAA's) have been designated.

Grizzly bears are present in the Valley Creek area of the Flathead Reservation which is approximately 15 miles northeast of the project area (Jonkel 2001.). Until 2001, no reports of grizzly bear sightings in the area have been confirmed with any physical evidence. In 2001, a young grizzly bear was present in the valley and was eventually radio collared and relocated by Montana Department of Fish, Wildlife and Parks. After repeated conflicts with humans, FWP personnel shot and killed the grizzly bear near Lozeau, MT (Jonkel 2001). The grizzly bear that came into the Ninemile Valley in 2001 probably came from the Valley Creek location. Grizzly bears are not known to occupy the Barrette Creek Fuels project area at this time, and there have been no recent reports of sightings. The project area is deemed not suitable habitat for grizzly bears. Because the project is not in a grizzly bear recovery area and no grizzly bears presently occupy the area, this project will have no direct, indirect, or cumulative effects on grizzly bears or their habitat (Barrette Creek Fuels Wildlife Report, page 3).

Bald Eagle

Bald Eagles are found along the Clark Fork River. The project area is about 8 miles north of the river and is too far from any large rivers or lakes to provide suitable nesting and foraging habitat. The nearest nest is about 10 miles southeast of the Barrette Creek Fuels project

area. Because this project is not near any bald eagle habitat, there will be no effect on bald eagles or their habitat. Also, because the project has no effect on bald eagles, there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, page 2)

Sensitive Species

The Forest Service Manual and the Lolo National Forest Plan require the Lolo national Forest to manage for sensitive species. Sensitive species are species that have the potential to be listed as threatened or endangered. The Forest Service Manual defines sensitive species as those plants and animal species identified by a Regional Forester for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers, density or habitat capability that would reduce a species’ existing distribution [FSM 2670.5(19)]. The Forest Service Manual directs the forests to develop and implement management practices to ensure that sensitive species do not become threatened or endangered because of Forest Service actions (FSM 2670.22 and 2670.32). Lolo forest plan standard 27 also directs the forest to manage sensitive species to maintain population viability. There are no forest management areas specific to sensitive species. Interim management recommendations outline plans to manage for viable populations of sensitive species in Region 1 (USFS 1992). No essential habitat has been designated for any sensitive species in the project area. The Lolo National Forest is drafting conservation strategies for sensitive species.

**The following species are listed as sensitive on the Lolo National Forest (USFS 2005) and may be present or suitable habitat may occur in the project area:
(Barrette Creek Fuels Wildlife Report, page 5)**

Common Name	Scientific Name	Presence
Coeur d’Alene Salamander	Plethodon idahoensis	Not likely
Black-backed woodpecker	Picoides arcticus	Possible
Flammulated owl	Otus flammeolus	Not likely
Townsend’s big-eared bat	Corynorhinus townsendii	Not likely
Wolverine	Gulo gulo lucus	Not likely
Western toad	Bufo boreas	Possible
Northern leopard frog	Rana pipiens	Not likely

Coeur d'Alene Salamander

Coeur d'Alene salamanders have a limited range centered on the northern border between Montana and Idaho. The Montana natural heritage Program monitors known populations about every two years. The nearest known location of these salamanders is about 20 miles northwest of the project areas.

Coeur d'Alene salamanders depend on a specialized microhabitat, and are usually found near waterfalls and rocky, cascading streams with fractured bedrock, gravel or talus for cover habitats (Maxwell 2000, USFS 1992). The streams identified in the Barrette Creek Fuels project do not have the cascading structure associated with known locations of these salamanders.

Because of a lack of suitable habitat and the protection streams receive from the riparian buffers, under the guidelines of INFISH, the Barrette Creek Fuels project will have no impact on Coeur d'Alene salamanders. Also because the project has no impact on Coeur d'Alene salamanders, there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, pages 5-6)

Black-backed Woodpecker

On the Lolo National Forest, biologists have found black-backed woodpeckers in stands following prescribed burns, site preparation burns, and wildfires. Surveys for black-backed woodpeckers were conducted on the Lolo National Forest after the wildfires in 2000. Transect surveys were done at 16 locations and covered over 970 acres of the most likely habitat from 2001 through 2003. The number of black-backed woodpeckers and nests peaked in 2002 with 9 nests and 39 foraging birds. Black-backed woodpeckers were located during these surveys within five miles of the project area. No black-backed woodpeckers were observed in the project area during site visits.

Black-backed woodpeckers are usually associated with outbreaks of wood-boring beetles and bark beetles in conifers often following windfall, disease or fires. On the Lolo National Forest, Samson (2005) estimates that there is 137,407 acres of post-fire habitat and 173,645 acres of insect infested black-backed woodpecker habitat during 2000-2003. The size of a black-backed woodpecker territory varies from 178 to 306 acres. Using these territory sizes, the Lolo National Forest has a well distributed, abundant, and increasing black-backed woodpecker habitat. (Samson 2005)

The project area is within the Barrette-McCormick 6th code HUC. The 2004 U.S. Forest Service insect and disease map shows about 12,060 acres of this HUC as presently infested. The map of recent fires also shows about 594 acres have burned within this HUC during the last five years. The result is 12,654 acres of abundant black-backed woodpecker habitat in this HUC.

None of the proposed treatment units contain any post-fire habitat; therefore the amount of post-fire habitat will not change. The 2004 insect and disease map shows 3 areas totaling 9 acres of infestation within the proposed treatment units. Thus, about .07% of the black-backed woodpecker habitat within the HUC would be receiving treatment. Even within those areas, not all dead trees would be removed and snags would be retained for wildlife habitat following the Lolo National Forest snag and woody debris guidelines (USFS 1997).

Due to the large amount of habitat available at the Regional, Forest, and project scale, and the small area proposed for treatment, this project will have no impact on black-backed woodpeckers. Also, because the project has no impact on black-backed woodpeckers, there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, pages 6-7)

Flammulated Owl

During the spring of 2005, 27 locations across the Lolo National Forest were surveyed for flammulated owls. Flammulated owls were found at 13 of the survey routes. The nearest known location of a flammulated owl is about 5 miles southeast of the project area.

These owls are found in low elevation areas with mature Ponderosa Pine, a low stand density and moderately open canopy (USFS 1992). The under story is typically very open, largely covered with grasses and a few shrubs or small clumps of regenerating trees. Flammulated owls show a preference for foraging in old growth pine and avoiding young, denser stands of Douglas Fir (Wright et al 1997). Fire suppression in Ponderosa Pine stands has led to dense Douglas Fir under stories that make foraging difficult for these owls. Flammulated owls also appear to avoid clear-cuts and intensively cutover areas, but they will use thinned or selectively logged stands.

The Barrette Creek Fuels project area contains mostly Douglas Fir, Western larch, and Lodgepole Pine. There is little desired mature Ponderosa Pine habitat. The project area is also at a higher elevation and mainly on north facing slopes where flammulated owls are not likely to occur. Overall, there is no suitable flammulated owl habitat in the project area.

Because there is no suitable habitat within the project area, this project will have no impact on flammulated owls. Also, because the project has no impact on flammulated owls, there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, page 8)

Townsend's Big-eared Bat

The nearest known location for a Townsend's big-eared bat is about 12 miles west of the project area (Romer 1994). Townsend big-eared bats depend on very limited sites such as caves and abandoned mines for hibernating and rearing young. These bats are very sensitive to disturbance during the hibernation and maternity periods. Identifying these sites and protecting them is the first step in bat conservation. There are no mine adits, caves or other roosting sites in the Barrette project area, therefore this project will have no impact on

Townsend's big-eared bats. Also, because the project has no impact on Townsend big-eared bats, there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, pages 10-11)

Wolverine

Wolverines are present on the Lolo National Forest and the nearest trapping record is about 12 miles northwest of the project area. Montana Department of Fish, Wildlife and Parks administers the trapping programs in the state. The project area is within Wolverine Management Unit (WMU) 1. According to the 2004 trapping regulations, WMU 1 has a quota of 5 wolverines. Montana is the only state in the lower 48 that still permits wolverine trapping.

Limited research on wolverines indicates that they have a huge home range, possibly between 140 and 770 square miles (Copeland and Harris 1994, Halter 1989). During the study in northwestern Montana, Hornhocker and Hash (1981) found most wolverines in medium and scattered timber, and wolverines crossed large clear-cuts but did not appear to hunt in them. Copeland and Harris (1994) found two natal dens in cirque basins, and large boulders and down trees may be important features. Denning wolverines with young appear to be very sensitive to human disturbance.

In both Montana and Idaho, big game carrion appears to be the major food source with snowshoe hares, squirrels, and small animals making up most of the rest of the diet (Copeland and Harris 1994, Hornhocker and Hash 1981).

Even with the little research available, the limiting factors on wolverines appears to be undisturbed denning habitat, big game as a food source and trapping pressure. The Barrette Creek Fuels project area is not in potential wolverine denning habitat; therefore this project will have no impact on wolverine denning. The project will not impact big game populations; therefore it will have no impact on potential food sources for wolverines. There are no changes in the existing road system; therefore there will be no change in trapping pressure. Because the proposal does not change potential wolverine habitat, this project will have no impact on wolverines. Also, because the project has no impact on wolverines, there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, page 11)

Western Toad

Western toads were once common and widespread in western Montana, but they are now uncommon with only some strong local populations. Reasons for decline are unclear but changes in pesticides, varying degrees of acid rain, ozone depletion, habitat loss, and climate change may be to blame. Declines have been noted in remote locations such as wilderness areas and national parks. Maxwell (2000) lists Western toads as likely to be present on the entire Lolo National Forest.

Adult western toads are largely terrestrial and use a variety of habitats including wetlands, forests, meadows, and floodplains in the mountains and mountain valleys (Maxwell 2000). They generally breed in lakes, ponds, and streams. The Lolo National Forest operates under the guidelines of the Inland Native Fish Strategy, which includes buffering areas within 300 feet of fish bearing streams, 150 feet of non-fish bearing streams, 50-100 feet near intermittent streams, and 50-150 feet near wetlands. These measures maintain cover and limit disturbance in the riparian area and should adequately protect habitat for boreal toads. The Barrette Creek Fuels project adheres to the INFISH guidelines.

Because of the riparian buffers in place under INFISH, this project will have no impact on boreal toads and there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, pages 11-12)

Northern Leopard Frog

Northern leopard frogs populations have also been declining and the reasons are also unclear. These frogs were once widespread across the state but now appear to have disappeared in much of western Montana (Reichel and Flath 1995). Leopard frogs may already be extirpated from this portion of Montana (Maxwell 2000).

Leopard frogs are usually found near water in non-forest habitats such as wet meadows and cattail marshes. They breed in lakes, ponds, and springs. Without more specific information on the reasons for decline, our best option is to maintain their breeding habitat in lakes, ponds, and streams. The Barrette project is located near a ridge top and there is little water in the project area.

The Lolo National Forest operates under the guidelines of the Inland Native Fish Strategy, which includes buffering areas within 300 feet of fish bearing streams, 150 feet of non-fish bearing streams, 50-100 feet near intermittent streams, and 50-150 feet near wetlands. These measures maintain cover and limit disturbance in the riparian area and should adequately protect habitat for boreal toads. The Barrette project meets the INFISH guidelines. See fisheries report for additional detail.

Because of the riparian buffers and limited water in the Barrette Creek Fuels project area, this project will have no impact on the leopard frogs, and there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, pages 12-13)

**Sensitive Species with No Suitable Habitat in the Project Area:
(Barrette Creek Fuels Wildlife Report, page 5)**

The project area contains no habitat for these species; therefore the project would have no direct, indirect, or cumulative effects on them.

Common Name	Scientific Name	Habitat Unsuitable Because
Peregrine falcon	Falco peregrinus	No cliffs for suitable nest sites
Harlequin duck	Histrionicus histrionicus	No large streams in the project area
Fisher	Martes pennanti	No cedar or grand fir habitat in project area
Common Loon	Gavia immer	Loons inhabit lakes, no lakes in project area
Northern bog lemming	Synaptomys borealis	Found in sphagnum bogs, none within project area

Management Indicator Species

The Lolo National Forest has three wildlife management indicator species: Northern goshawk, elk, and pileated woodpecker (Forest wide Standards #25 and #27, Forest Plan page II-14 and Forest Plan Final Environmental Impact Statement pages III-28 through III-29). Management direction for management indicator species is outlined in Forest Service Manual 2621. There are no forest management areas that apply specifically to pileated woodpeckers. Elk are covered in the big game sections. The forest plan management indicator species, along with the endangered, threatened, and sensitive species, provide an adequate array of species for wildlife analysis of the Barrette Creek Fuels project. There is no need for additional management indicator species.

Northern Goshawk

Goshawks are present across the Lolo National Forest, and nests have been located in a wide variety of habitat. The 2005 regional goshawk survey showed that the proportion of the forested lands in the roaded area of Northern Region that was occupied by goshawks was about 40%. On two occasions, during fall months adult goshawks were identified in the project area. Because goshawks migrate or move to lower elevation wintering areas from September through November (Squires and Reynolds 1997, USFWS 1998), this location is probably not this birds nesting territory. Tapped call surveys were conducted in the project area during the nesting season. No goshawks responded to calls and no nests were located.

In his conservation assessment of northern goshawks in the Northern Region, Samson (2005) states that short-term viability of the northern goshawks in the Northern Region is not an issue because: no scientific evidence exists that the northern goshawk is decreasing in

numbers, habitat is well-distributed and abundant, the level of timber harvest is insignificant, the extent of forested habitat has increased since European settlement, and suppression of natural ecological processes has increased and continues to increase the amount of northern goshawk habitat.

The stands in the project area generally meet the basic conditions outlined in Samson's (2005) goshawk habitat relationship models. The exception is that some of these stands do have small natural openings with little canopy closure. Even though goshawks were observed in this stand during the fall, no nests have been found or juveniles observed during the breeding season.

Bloxton (2000) found that goshawks require open space under the canopy to search for and capture prey. The reduction of the under story and ladder fuels may improve future foraging conditions for goshawks in these stands. Moser and Garton (2004) concluded that timber harvest does not appear to affect northern goshawk breeding occupancy, nest success, or productivity. The project area does not appear to be used as nesting or fledging habitat, so treatments are not going to reduce any active nesting habitat.

Because the short term viability is not an issue at the regional or forest level, the treated stands will still meet the habitat requirements, under story treatments may improve foraging habitats, and no nesting habitat will be treated. The Barrette Creek Fuels project will have no impact on northern goshawks or their habitat and will subsequently have no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, pages 9-10)

Pileated woodpecker

Bergeron (1992) lists pileated woodpeckers as both breeding and wintering in this area. Pileated woodpecker feeding and excavations are commonly observed across the district. Pileated woodpeckers are often associated with mature forest but the presence of large trees for nesting is reported to be more important than forest age (Kirk and Naylor 1996, Giese and Cuthbert 2003). Pileated woodpeckers can do well in young and fragmented forests with abundant remnant older structure (Mellon et al. 1992). Ponderosa Pine, Western Larch, and Cottonwood are preferred nest trees, but almost all tree species are used for feeding (Aney and McClelland 1990). Nest trees are usually snags often with broken tops and nest trees are larger and taller than in random sites (McClelland and McClelland 1999).

In his conservation assessment of pileated woodpeckers in the Northern Region, Samson (2005) states that the short-term viability of the pileated woodpecker in the Northern Region is not an issue because no scientific evidence exists that the pileated woodpecker is decreasing in numbers, habitat is well-distributed, abundant, and has increased since European settlement, and the level of timber harvest in the Northern Region is insignificant.

Samson's (2005) model for pileated habitat considers both nesting and winter foraging habitat. Winter foraging habitat was selected because winter is the critical period for survival. Pileated woodpecker habitat appears to be abundant on the Lolo National Forest. If winter is considered the limiting factor and a pair uses 40 ha of winter foraging habitat

(Bonor 2001), then the Lolo National Forest would have enough winter habitat to support approximately 1598 pairs of pileated woodpeckers.

The project area is within the Barrette-McCormick 6th code HUC. The 2004 U.S. Forest Service insect and disease map shows about 12,060 acres of this HUC as presently infested. The 2004 insect and disease map shows 3 areas totaling 9 acres of infestation within the proposed treatment units. Thus, about .07% of pileated woodpecker habitat within the HUC would be receiving treatment. Even within those areas, not all dead trees would be removed and snags would be retained for wildlife habitat following the Lolo National Forest snag and woody debris guidelines (USFS 1997).

Pileated woodpeckers prefer Western Larch, Ponderosa Pine, and Cottonwood for both feeding and nesting (McClellan and McClelland 1999). Most of the stands in the Barrette Creek Fuels project are dominated by Lodgepole Pine and Douglas Fir. Lodgepole Pine and Douglas Fir are not preferred species, thus these stands are not considered potential nesting habitat. There is a component of Western larch and Ponderosa Pine in the stands but no Cottonwood is present in the treatment area. Overall, the species composition of the stands in the Barrette Creek Fuels project provide feeding habitat but little nesting habitat for pileated woodpeckers because of the large amount of Lodgepole Pine.

None of the Barrette Creek stands meet the R1 old growth criteria. The proposed improvement cutting treatments focus on removing the smaller under story trees and retaining the larger over story trees. Pileated woodpecker habitat appears to be abundant at the regional, Forest, and 6th code HUC level. At the Barrette Creek Fuels project level, the over story tree species are not primarily the species preferred and treatments will favor retaining larger diameter trees and snags following the Lolo National Forest snag and woody debris guidelines. Considering the stated information, the Barrette Creek Fuels project will have no impact on pileated woodpecker, and there will be no cumulative effects on this species or their habitat. (Barrette Creek Fuels Wildlife Report, pages 13-15)

Big Game

Elk

The Forest Service manual directs the forests to manage for species that are in demand for hunting (FSM 2601.2, 2602, and 2603). The Lolo forest plan contains goals, objectives, and standards for big game management (USFS 1986). The Lolo National Forest works with the Montana Department of Fish, Wildlife, and Parks (FWP) through the Montana elk management plan (FWP 2000). According to the Montana elk management plan, the Barrette Creek Fuels project area is in the Ninemile Elk Management Unit (EMU). The habitat objectives for this unit include maintaining current elk habitat and maintaining or enhancing elk security (FWP 2000).

Montana Department of Fish, Wildlife, and Parks conducts annual elk surveys, weather and funding permitted.

**Elk Surveys
Hunting District 201, Alberton to Evaro**

Year	1999	2000	2001	2002	2003	2004
Elk Observed	185	156	--	259	--	266

The Barrette Creek Fuels project is not located in big game summer range habitat (MA 26). Portions of six of the units, directly adjacent to private property are considered big game winter range (MA 23). The proposed treatments will slightly reduce hiding cover but will also increase the quality and quantity of forage. The increase in forage production on Forest Service land may relieve game crop damage pressure on private property. With INFISH guidelines in place, most hiding cover will be retained along streams and draws. No special habitat features such as wallows or mineral licks were found during site visits. The project is not presently elk security habitat because it is adjacent to open roads and agricultural private land.

As a result of the listed habitat factors above, the Barrette Creek Fuels project will have no impact on elk habitat, and there will be no cumulative effects on the species. (Barrette Creek Fuels Wildlife Report, pages 15-16)

Inventoried Roadless Areas

The Barrette Creek Fuels project area is not located within or contains any inventoried roadless areas (IRAs) or research natural areas. The project is not located within other areas such as congressionally designated areas, wilderness, wilderness study areas, or national recreation areas. The Barrette Creek Fuels project would have no direct, indirect, or cumulative effects on IRAs.

Weeds

Proposed treatment activities that disturb the soil and/or that create openings in the forest canopy would increase the potential for the establishment and spread of weeds. Harvest prescriptions and burn plans would be designed to maintain shading of the forest floor and protect the duff layer above the soil to minimize the potential for further establishment of weeds in the project area. Best management practices in conjunction with roadside herbicide treatment will be conducted pre and post fuel treatment activities to further reduce existing weed populations within the project area. (Barrette Creek Fuels Reduction Project-Noxious Weeds Supplemental)

AGENCIES AND PERSONS CONSULTED

Adjacent landowners

Montana Department of Environmental Quality

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Appendix A

Proposed Action Map

BARRETTE CREEK FUELS PROJECT

Legend

- protect_improvement
- 7 bridges
- gates
- fence_line
- Major Streams
- routes_notreatment
- temproad
- barrette_routes

Waterbodies

- Canal/Ditch
- Ice Mass
- Lake/Pond
- Reservoir
- Stream/River
- Swamp/Marsh

Streams

- perennial
- intermittent
- hand_pile_area
- cutting_units
- sale_area_bnd

Ownership

- Bureau of Land Management
- Lolo National Forest
- Plum Creek
- Private
- State of Montana
- US Fish and Wildlife
- Water

