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Northern Region

**Idaho Panhandle
National Forests**

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Coeur d'Alene River Ranger District Missouri Heli Bug Project

Decision Notice



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ATTACHMENT A - Corporate Monitoring Information

ATTACHMENT B – Comments from the Public

**Coeur d'Alene River Ranger District
Missouri Heli Bug Project - Decision Notice**

1. Purpose And Need For Action

Over the past several years, a widespread Douglas-fir beetle infestation has caused significant mortality to Douglas-fir trees. This mortality is scattered across the district. Two years ago, the Forest Service addressed larger areas of mortality through the Douglas-fir Beetle Environmental Impact Statement (EIS) and Record of Decision (USDA Forest Service, 1999). Smaller areas of mortality were addressed through the Small Sales EIS (USDA Forest Service, 2000). Beetle mortality in the Missouri Gulch area did not come to our attention until the summer of 2000 and was therefore not considered under either of the previous analyses.

In addition to the timber mortality and change in stand conditions as a result of Douglas-fir bark beetle in the Missouri and Scott Gulch areas, there are also small areas of low residual stand stocking levels that are the result of mortality to root disease and blister rust over extended periods of time. The opportunity exists to treat these beetle-kill and root disease areas with site preparation and planting to restore pines and larch back into the ecosystem.

The purpose of our proposal is to:

- *allow recovery of the economic value of dead and diseased timber*
- *promote long-term vegetative restoration in areas of low residual stand stocking as a result of timber mortality to root disease and bark beetles.*

2. Proposed Action

The proposed action (represented by Alternative 2) is to:

- 1) Harvest dead and dying trees in areas attacked by bark beetles or opened by mortality to root disease and blister rust using salvage and regeneration harvest methods;*
- 2) restore long-lived seral tree species such as white pine, western larch and ponderosa pine in stands where bark beetles and root disease have killed a substantial portion of the basal area of the stand, through timber harvest, site preparation, and associated planting;*

Under the Proposed Action, timber harvest and fuels treatment would occur on a total of approximately 55 acres. No road construction or reconstruction would occur under this proposal. For more specific information regarding activities of the proposed action (acres by prescription, yarding methods, fuels treatment, etc.) refer to the Environmental Assessment, Chapter 2 (Table 2-13, Figures 2-1 and 2-2, and the Alternative Descriptions).

3. Corrections to the Environmental Assessment

The following statement is made on page 3-38 of the Environmental Assessment (Water Resources section): “Under Alternative 2, WATSED predicts that the green tree harvest to create conditions for regeneration treatments would result in an additional 21 scattered equivalent clearcut acres over the No Action Alternative. Under Alternative 3, this green tree harvest would result in an additional 12 equivalent clearcut acres over the No Action Alternative.” These numbers are inaccurate. They were generated by mistakenly attributing all of the canopy loss to green tree harvest. In reality, a large component of the canopy loss

(approximately 40 to 50%) was observed as the result of bark beetle mortality and mortality due to other causal agents.

The correct numbers would be 6 equivalent clearcut acres (ECAs) under Alternative 2, with 3 equivalent clearcut acres under Alternative 3. As a result of this change, the percentage increase in ECAs under Alternative 2 (incorrectly stated later on page 3-38) would then be adjusted to 0.02 percent instead of 0.08 percent above the No-Action Alternative, and the percentage increase in ECAs for Alternative 3 would be adjusted to 0.01 percent instead of 0.05 percent above the No-Action Alternative. These corrections must also be applied to the comparison of effects to Watershed/Fisheries in Chapter 2 (Section 2.7.4 Comparison of Alternatives).

These corrections do not change the conclusion that the cumulative effects resulting from implementation of either of the action alternatives would not be measurable at the tributary or watershed scale for increases in peak flows or sediment over what would occur under the No-Action Alternative, as described in Chapter 3 (Water Resources) and brought forward into Chapter 2 (Comparison of Alternatives). This errata information was sent out at the beginning of the EA review period as an attachment to the EA cover letter.

4. Alternatives To The Proposed Action

As stated above, Alternative 2 represents the Proposed Action. Two alternatives to the proposed action were analyzed in detail. **Alternative 1** is the No-Action Alternative required by NEPA and NFMA. Under this alternative, none of the proposed activities would occur at this time. There would be no change from current management direction or from the level of management intensity in the area. Implementation of foreseeable activities (identified on pages 2-5 through 2-7 of the EA) would still occur.

The vegetative objective of **Alternative 3** would be to salvage dead and dying trees in areas with beetle mortality, similar to Alternative 2, however units would not be expanded to treat root disease and blister rust mortality areas. Nineteen acres of individual tree salvage would occur with twenty-one acres of group shelterwood harvest, site preparation burning, and planting in areas of high beetle mortality. Yarding methods and fuels treatments would remain the same as Alternative 2. No road construction or reconstruction would occur under this alternative, same as Alternative 2.

5. Criteria For My Decision

This Decision Notice documents the decisions I have made for this project, based on:

- *the extent to which each alternative addresses the purpose and need for action*
- *how well each alternative responds to environmental issues and concerns identified by the public, other agencies, and Forest Service resource specialists*
- *consistency with the goals and findings of Forest policy and legal mandates*
- *effects of the selected alternative in comparison to other alternatives considered*

6. The Selected Alternative

6.1 Description of the Selected Alternative

I have selected **Alternative 2** for implementation, as described on pages 2-10 and 2-11 of the Environmental Assessment, with one modification. Under Alternative 2, harvest Units 2 and 3 were combined to create one 18-acre irregular shelterwood unit, in which underburning and planting would follow harvest activities. Conversely, Alternative 3 identified Units 2 and 3 as separate group shelterwood units for a total of 8 acres. Because of the healthier nature of the forest between units 2 and 3, I have decided to keep these units separate. Under the Selected Alternative (Alternative 2 modified), these units will be separate group shelterwood units, totaling 10 acres. This is less than the 18 acre unit originally planned for the area. The remaining 8 acres were found to contain a considerable amount of smaller healthy timber that may not survive the scheduled underburning treatment. This prompted the removal of this area from the treatment unit. Units 6 and 8 will be combined as planned under Alternative 2. (please see Figure 1 for a map depicting activity locations under the Selected Alternative).

This modification will result in environmental impacts that are equal to or less than those analyzed under Alternative 2 (Project Files – Hydrology/Wildlife/TES Plants). Unit 2 will be expanded down to the road because this adjacent area has similar stand conditions of beetle and root disease mortality and to create a more logical treatment unit for site preparation and management activities. The yarding method will remain helicopter. Leave tree protection will also be added to this unit to protect scattered healthy white pine during burning operations. There will be 8 fewer acres of treatment and 110 mbf less harvest volume as a result of this change. This reduction in treatment acres will mostly be within Scott Gulch, which was previously entered under the Capitol Hill Planning Assessment. Comments were received expressing concern over canopy loss and watershed effects during previous entries in side drainages to Beaver Creek (DN, Attachment B, C-2). This change will also reduce the disturbance period for other users of this area.

From a vegetation standpoint, the objective of this alternative is to harvest dead and dying trees in areas attacked by bark beetles. Some green trees between concentrations of beetle activity will be removed in order to promote the environment needed to re-introduce long-lived seral species to the area. In stands where bark beetles and root disease have killed a substantial portion of the basal area of the stand, the objective is to restore long-lived seral tree species such as white pine, western larch and ponderosa pine. Not all beetle-killed patches or root disease areas in the project area would be treated. Some small patches of beetle-killed trees would be retained for wildlife habitat or would be retained in Riparian Habitat Conservation Areas (RHCA) for woody debris recruitment.

In stands where beetle and root disease mortality is generally light, harvest treatment would salvage trees killed by bark beetles (this includes trees that are attacked by beetles that have crown symptoms indicating the trees will die) and associated trees fading to root disease or other pathogens. Additional incidental green trees may need to be removed to allow for safe felling practices or removal of trees significantly damaged during the harvest operation. Three areas ranging from 2 to 6 acres in size would be scheduled for this salvage type treatment for a total of 19 treatment acres. Approximately 5 of these 19 acres actually have high mortality to beetles but are only being planned for salvage treatment due to size and location of the units. Fuels would be treated by lop and scattering to get this material on the ground where it will decompose quicker. These salvage units would not change stand structure or species composition on these sites.

In stands where beetle, root disease, and blister-rust mortality is more severe (generally over 50% loss of overstory basal area) regeneration harvest would be used. These regeneration treatments would be group or irregular shelterwood harvests depending on the amount of healthy overstory remaining. These areas will be underburned to consume logging slash, reduce competing vegetation, and prepare the sites for planting of white pine, larch, and ponderosa pine. The emphasis would be on retention of groups of large healthy

overstory trees to maintain visual quality objectives on the sites. Smaller green trees that are not expected to survive underburning in these stands would be harvested unless retained for wildlife habitat. Healthy western larch, ponderosa pine and Douglas-fir over 16 inches in diameter and healthy white pine and grand fir over 18 inches in diameter would be retained on site. Generally, 20-30% of the stand basal area would be retained in group shelterwood harvests with 30 to 40% retention for the irregular shelterwood. Both these types of harvest treatments are designed to leave the best trees on the site without regard to spacing of leave trees. Four areas ranging from 3 to 15 acres in size would be scheduled for regeneration treatment for a total of 30 treatment acres.

The following table displays the estimated amount of harvest by silvicultural prescription, fuels treatment, and yarding methods that will occur under the Selected Alternative. Additional details of the Selected Alternative are provided under “Features of the Selected Alternative” and Table 2 (“Specific Unit Information”). No new road construction or road reconstruction will occur.

Table 1. Activities that will occur under the Selected Alternative (Modified Alternative 2).

Feature	Alternative 2 (modified)
Total Proposed Harvest (Acres):	47
Salvage	19
Group Shelterwood (with planting)	13
Irregular Shelterwood (with planting)	15
Total Proposed fuels treatment (Acres)	47
Lop and scatter	19
Underburning	28
Yarding Systems (Acres)	47
Cable	16
Helicopter	28
Tractor	3
Expected Harvest Volume:	
Timber volume (CCF) ¹	670
Timber volume (MBF) ²	335

¹ CCF = 1 cunit (one hundred cubic feet)

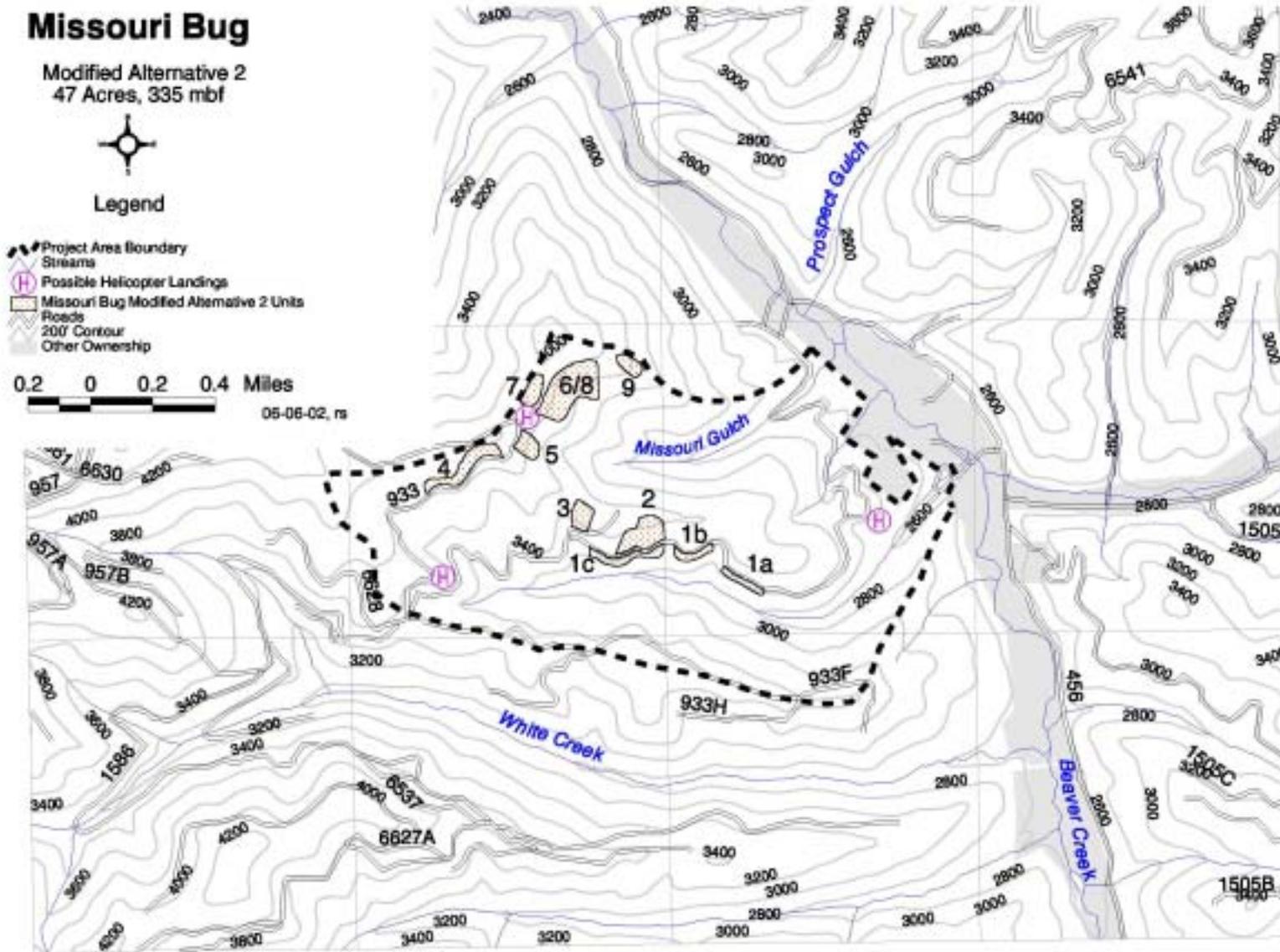
² MBF = thousand board feet

Table 2. Specific Unit Information, Modified Alternative 2.

Unit	Acres	Prescription	Volume (mbf*)	Yarding	Fuels	Planting
1a	2	Salvage	6	Cable	Lop & Scatter	None
1b	2	Salvage	6	Cable	Lop & Scatter	None
1c	4	Salvage	20	Cable	Lop & Scatter	None
2	7	Group Shelterwood	50	Helicopter	Leave tree protection/ Underburn	White Pine/ Western Larch/ Ponderosa Pine
3	3	Group Shelterwood	20	Helicopter	Underburn	White Pine/ Western Larch/ Ponderosa Pine
4	6	Salvage	30	Cable	Lop & Scatter	None
5	3	Group Shelterwood	24	Cable	Slash/Underburn	White Pine/ Western Larch
6/8	15	Irregular Group Shelterwood	150	Helicopter	Leave tree protection/Underburn	White Pine/ Western Larch
7	3	Salvage	15	Tractor	Lop & Scatter	None
9	2	Salvage	14	Helicopter	Lop & Scatter	None

* mbf = thousand board feet

Figure 1. Selected Alternative Map.



6.2 Features Designed to Protect Aquatic Resources

In development of the action alternatives, standards and guidelines of the Inland Native Fish Strategy were used specifically to protect water and aquatic biota within the Resource Area. Riparian Habitat Conservation Areas (RHCAs), known locations of sensitive plants and special wildlife habitat areas were excluded from proposed timber harvest or fuel treatment activities. Standard widths for defining interim Riparian Habitat Conservation Areas (RHCA's) were utilized with no modifications. Riparian Management Objectives and road management standards and guidelines were applied within the Resource Area boundary on those roads used for harvesting or hauling of timber. Streamside buffers will be applied along all harvest units in the Selected Alternative. The intent of the buffers are to meet the riparian management objectives of maintaining slope stability in potentially sensitive areas, maintain stream temperatures and provide a long-term supply of large woody debris.

There are three units (1a, 1b, and 1c) near Scott Gulch that will maintain a 300-foot buffer between the drainage and the salvage units. Unit 3 has an intermittent stream on the west side of the unit; a 75-foot no-harvest buffer will be maintained along this channel. There is no instream work proposed with this project, therefore timing restrictions will not be necessary.

To minimize erosion and ensure compliance with State water quality standards, all road use and timber harvest associated with the Missouri Heli Bug project will be completed using Best Management Practices. The Forest Service Handbook 2509.22 (Soil and Water Conservation Handbook) outlines Best Management Practices that meet the intent of the water quality protection elements of the Idaho Forest Practices Act. Soil and water conservation practices, identified in the Soil and Water Conservation Handbook, are standard provisions to timber sale contracts (USFS Timber Sale Contract - Division B, 2400-6). Activities will meet or exceed rules and regulations of the Idaho Forest Practices Act, Best Management Practices, and the Idaho Forestry Act and Fire Hazard Reduction Laws (1988).

6.3 Features Related to Vegetation Management

All harvest units are on sites determined to be suitable for timber production. Within 5 years of regeneration treatment, site preparation for regeneration, fuel treatment and planting will occur. In approximately 10 to 30 years the stands proposed for regeneration (the irregular and group shelterwood harvest units) may be entered for pre-commercial thinning, pruning, cleaning and possibly fertilization to meet target stand and management area guidelines. Precommercial thinning and pruning has been shown to decrease mortality due to white pine blister rust in resistant and non-resistant stock (Schwant, Marsden, McDonald, 1994) and are important tools in managing for this species. Proximity access for stand-tending purposes will be easy to maintain, as these areas are located along main arterial travel routes.

6.4 Features Designed to Protect TES Plant Habitat

All previously unsurveyed areas identified as highly suitable habitat were surveyed in August of 2001. No proposed threatened or sensitive plants were found. No highly suitable dry guilds for sensitive plant species exist within the project area. No harvest activity would occur which would adversely impact any known threatened, proposed threatened or sensitive plant population. All populations potentially adversely affected will be buffered from harvest activity by a minimum of 100 feet. No harvest activity will occur in riparian habitat. Evaluation of habitat for water howellia (an aquatic species) and Ute ladies'-tresses (a deciduous riparian species), indicates that there is no suitable habitat in the project area.

6.5 Features Designed to Protect Air Quality

The Idaho Panhandle National Forest is a party to the North Idaho Smoke Management Memorandum of Agreement, which established procedures regulating the amount of smoke produced from prescribed fire.

The North Idaho group currently uses the services and procedures of the Montana State Airshed Group. The procedures used by the Montana Group are considered to be the “best available control technology” by the Montana Air Quality Bureau for major open burning in Montana. A Missoula-based monitoring unit is responsible for coordinating prescribed burning in North Idaho during the months of April through November. This unit monitors meteorological data, air quality data, and planned prescribed burning and decides daily on whether or not restrictions on burning are necessary the following day.

In practice, a list of all prescribed burning planned for the burning season on the Coeur d'Alene River Ranger District is forwarded to the monitoring unit through the Idaho Panhandle National Forest fire desk before March 1. Daily, by 8:30 a.m., the Coeur d'Alene River Ranger District informs the fire desk of all burning planned for the next day and the fire desk forwards this information to the monitoring unit. By 3:00 p.m. the same day the monitoring unit informs the Forest if any restrictions are to be in effect the following day, and the fire desk informs the District. These procedures limit smoke accumulations to legal, acceptable limits.

Historically, prescribed burning on the Coeur d'Alene River Ranger District occurs in the spring and fall seasons over a total time span of 45 to 60 days during each season. All burning complies with federal, state and local regulations. Management practices include, but are not limited to, burning under spring-like conditions (high moisture content in fuels, soil and duff) to reduce emissions, provide for retention of large woody debris, and to protect the soil. Prescribed burning during spring or fall will generate less smoke than a much hotter stand replacing summertime wildfire.

6.6 Features Designed to Protect Wildlife Habitat

Patches of beetle-killed timber have been excluded from harvest consideration within and adjacent to the project area. Live leave trees in regeneration and rehabilitation areas would be reserved from harvest to provide size class diversity and long-term snag recruitment. Snags would be retained in accordance with the Northern Region Snag Management Protocol (USDA Forest Service, 2000). The Northern Region Snag Protocol calls for greater snag retention than identified under Forest Plan standards. In proposed harvest units that currently contain quality snag densities, 2 to 4 of the largest dead trees per acre would be maintained. Some smaller unmerchantable dead trees would also be retained to achieve the 6 to 12 snags per acre identified for these habitat types under the Snag Protocol Guidelines. There is also expected to be some recruitment of snags during underburning.

Several birds of prey are identified for special protection measures on the IPNF. No proposed harvest units fall within modeled suitable goshawk or flammulated owl habitat. No nest sites have yet been found in or adjacent to the proposed harvest units. If active goshawk nest sites were found, the nest site would be protected with a 30-acre no-harvest buffer. If active flammulated owl nest sites are found, the Forest Service may cancel timber harvest and yarding activities within 200 feet of the nest site. No tree felling, yarding or other potentially disturbing activities would occur within approximately one-quarter mile of the nest site from March 15 to August 15. These protective measures are based on Management Recommendations for the Northern Goshawk in the Southwestern United States (1992) and would be incorporated into timber sale packages using the appropriate timber sale contract clauses. Any trees that are bole-scorched during site preparation burning operations would be retained on site for black-backed woodpecker habitat.

In all harvest units it will be necessary to retain some down logs in order to protect long-term site productivity, maintain soil organic matter, and provide wildlife habitat. On moist sites, 15 to 20 logs or down trees would be retained on the site. On dry sites, 3 to 6 logs or down trees would be retained. These logs would be at least 12 inches in diameter and 6 feet long. Graham et al recommend minimum levels of woody debris to sustain soil productivity and faunal use of this forest floor substrate. The Northern Region

Snag Management Protocol discussed earlier provides snag retention recommendations to assure that the functions of these important components are effectively protected.

Approximately one mile of Road 933 would be opened for sale activities, with a gate in place that and would be closed at the end of each day's activities.

6.7 Features Designed to Protect Recreational Use

Contract provisions will be included to protect public safety as previously mentioned. In addition, log hauling would be prohibited on forest roads on weekends and holidays. To avoid impacts to winter recreational use, logging operations will be prohibited on the gated portion of Road 933 (accessing Units 4 through 9) during the period December 1 through March 31. This route is a designated groomed trail within the Browns Ridge snowmobile system.

6.8 Features Designed to Protect Heritage Resources

Surveys in this area were completed under the Capitol Hill Resource Area Assessment. All known heritage resource sites will be protected under any alternative, as directed by the Cultural Resources Management Practices (Forest Plan, Appendix FF). Any future discovery of heritage resource sites or caves would be inventoried and protected if found to be of cultural significance. A decision would be made to avoid, protect, or mitigate effects to these sites in accordance with the National Historic Preservation Act of 1966.

6.9 Features Designed to Protect Soil Productivity

No road construction or reconstruction will occur under the Selected Alternative. A small amount of compaction will occur in association with 3 acres of tractor skidding in a ridgetop unit. To minimize ground disturbance, skid trails will be designed to be 140 feet apart except where converging. There are no units located where existing soil conditions would not meet Forest Plant soil quality standards before or after harvest. Minor soil disturbances will occur within cable units and where hand fire line is constructed around units.

None of the harvest units are located on geologic formations known to be lacking in potassium feldspar. In areas of underburning, limbs and tops will be required to be left in the woods prior to yarding. The slash will remain on site over winter prior to burning to allow nutrients to leach from the material. Burning will occur when soil moistures are higher than summer months, to protect soil horizons. Using recommendations of the Intermountain Forest Tree Nutrition Cooperative will maximize partible potassium on the sites.

6.10 Mitigation

The following mitigation measures are required in order to fulfill the determination of effects in the Biological Evaluation for sensitive plants:

- *If sensitive plants are discovered prior to or during project implementation, the occurrence would be evaluated by the District Botanist and mitigation measures instituted as necessary to ensure that population viability is protected. This could include dropping or otherwise modifying portions of the selected alternative.*
- *Noxious weed spread and new invading weed species are a threat to rare plants and their habitats. To help limit the spread of weeds in the Project Area, contract provision C6.361 will be used where applicable. This provision requires the cleaning of excavating or off-road equipment.*

- *Certified noxious weed free grass seed mix will be sown wherever soil disturbance results from project activities, in accordance with Forest Service Manual (FSM) 2081.2. Fertilizer should be included to help in grass establishment. Any straw and/or hay used as mulch is required to be certified noxious weed free.*

6.11 Schedule of Activities

Depending upon availability of funding and operating schedule, timber harvest will likely occur in 2002, followed by prescribed burning in 2003 and tree planting in 2004. Please refer to the Environmental Assessment, Chapter 3, Finances, for a discussion of the types of funding.

6.12 Monitoring

6.12.1 Forest Plan Monitoring

The Forest Plan documents a system to monitor and evaluate Forest activities. Monitoring and evaluation each have distinctly different purposes and scope. In general, monitoring is designed to gather the data necessary for project evaluation. During evaluation of project effectiveness, data provided through the monitoring effort are analyzed and interpreted. This process will provide periodic data necessary to determine if implementation is within the bounds of the project design (Forest Plan, page IV-7). For activities related to the Missouri Heli Bug project, the Selected Alternative will comply with specific monitoring requirements identified by the Forest Plan (Forest Plan, Chapter IV). The length of time that monitoring is needed will be determined by the results and evaluation of what is being monitored. When it is certain that regulations and standards are being met, monitoring of a particular element will cease. If monitoring evaluations show that regulations or standards are not being achieved at the desired level, management intervention will occur.

6.12.2 Forest Corporate Monitoring

In December 1999, the Ecosystem Team for the Idaho Panhandle National Forests facilitated development of a Corporate Monitoring System. The emphasis is on monitoring our progress in restoring the ecosystems of the Idaho Panhandle and in being more consistent in the way we analyze effects to the ecosystems. The monitoring is tied closely to findings of the Interior Columbia Basin and Coeur d'Alene Geographic Assessments. The data tracked for long-term monitoring and the anticipated project-related changes to the ecosystem conditions is provided in Table A-1 of Attachment A.

6.12.3 Monitoring Specific to This Project

In addition to the above, the following monitoring activities would occur specific to this project:

Vegetation: All regeneration units will be monitored for regeneration success. All regeneration will be complete in 5 years. All intermediate treatments will be monitored to assess achievement of prescription objectives.

7. Findings And Consistency With Laws, Regulations And Policy

Numerous laws, regulations and agency directives require that my decision be consistent with their provisions. The following discussion is not an all-inclusive listing, but is intended to provide information on the areas raised as issues or comments by the public or other agencies.

7.1 National Environmental Policy Act

As described in the EA (page 2-1), the National Environmental Policy Act (NEPA) requires analysis of projects to ensure the anticipated effects upon all resources within the project area are considered prior to project implementation (40 CFR 1502.16). The analysis for the Missouri Heli Bug project followed the guidelines of NEPA as provided by the Council on Environmental Quality (CEQ). Alternatives were developed based on existing conditions, Forest Plan goals and objectives, and public concerns and recommendations. A total of three alternatives were considered in detail, including a no-action alternative as required by NEPA and NFMA (EA, pages 2-10 through 2-19, “Alternative Descriptions”); an additional three alternatives were briefly considered but eliminated from further study (EA, page 2-9). The range of alternatives is appropriate given the scope of the proposal and the purpose and need for action (EA, page 1-1).

7.2 Natural Resources Agenda

On March 2, 1998, Forest Service Chief Mike Dombeck announced the Forest Service Natural Resource Agenda. The Agenda provides the Chief's focus for the Forest Service, and identifies specific areas where there will be added emphasis, including:

- *watershed health and restoration*
- *forest road policy*
- *sustainable forest management*
- *recreation*

As stated in the EA (page 2-1), the activities to be implemented under the Selected Alternative have been designed to be consistent with the goals and tentative direction provided under the Natural Resources Agenda to date. The purpose and need for this project is to recover the economic value of dead and damaged timber and to promote long-term vegetative objectives in areas of high timber mortality. The salvage of this timber may provide the funding to finance an additional watershed restoration opportunity that has been identified during project development (EA, page 2-7). However, the use of expensive helicopter yarding to avoid road construction may limit the ability to finance other projects. A watershed restoration-only alternative was considered but dismissed from further consideration because it would not meet the purpose and need for this project and because considerable watershed restoration activities have already occurred in this area (EA, page 2-9).

Forest road management is tiered to the Forest Plan (EA, page A-7, A-8), and takes into consideration the proposed Forest Service Road Management and Transportation Rule and Roadless Area Conservation Policy, as discussed later in this Decision Notice.

Regeneration harvests are proposed for most stands in which a large component of the overstory stand basal area has been lost to bark beetles (EA, page 3-14). Following site preparation, regenerated stands will be planted with white pine, larch, and ponderosa pine to promote stand structures and species composition that reduce susceptibility to insect and disease damage. This is consistent with Forest Plan direction and the Natural Resources Agenda in terms of sustainable forest management.

The timber harvest and fuels treatment activities will likely cause some disturbance or interruptions to recreation visitors, but the disturbances will be of a temporary nature (EA, page A-10). No developed recreation sites will be directly affected. Indirect effects might include the sounds of helicopters and logging trucks passing a recreation site. Recreation experiences may have to be achieved in another area of the forest setting until activities are complete. Activities will be accomplished using safety standards based on the Forest Service's Health and Safety Code Handbook (EA, page A-8, “Public Safety”). Logging operations would be prohibited during the winter recreational period from December 1 to March 31 on the

gated portion of Road 933 since it is part of a groomed snowmobile route within the Browns Ridge, Capitol Hill National Recreation Snowmobile Trail.

7.3 Forest Service Road Management and Transportation System Rule

On January 28, 1998, in an Advance Notice of Proposed Rulemaking (63 FR 4350), the Forest Service announced its intent to revise regulations concerning management of the national forest transportation system. In January 2001, the Forest Service issued a Final Rule regarding specific revisions to the road system rules at 36 CFR part 212 and to Forest Service administrative directives governing transportation analysis and management.

The roads policy provides basic procedural protection for inventoried roadless areas and contiguous unroaded areas from road building until the Roadless Area Conservation Rule (discussed below) becomes effective, and the Forest completes a forest-scale roads analysis and incorporates it into the Forest Plan.

One of the tools developed to meet objectives of the revised policy is an integrated, science-based roads analysis process that allows objective evaluation of the environmental, social and economic impacts of proposed road construction, reconstruction, maintenance, and decommissioning (USDA Forest Service, 1999, Misc. Rep. FS-643). The six-step process does not make decisions nor allocate lands for specific purposes. Rather, the analysis identifies and addresses a set of possible issues and applicable analysis questions that, when answered, produce information for forest line officer consideration about possible road construction, reconstruction, and decommissioning needs and opportunities.

Due to the small scope of this project, the small amount of existing roads, the recently upgraded condition of these roads, and the absence of new road construction or reconstruction, there was no need to do a thorough roads analysis under the Roads Analysis Policy for this project area. Road upgrades, channel site upgrades, and obliterations were completed throughout the Capitol Hill Resource Project Area plan. The Coeur d'Alene River Ranger District Access Management Assessment (USDA Forest Service, 2000) was used to determine system roads within the planning area. For additional information, please refer to the Environmental Assessment (page A-7).

7.4 Roadless Area Conservation Rule

On October 13, 1999, President Clinton directed the Forest Service to develop a proposal for managing some 50 million acres of roadless areas in the National Forests (EA, page II-2). The Roadless Area Conservation Rule was published in the Federal Register on January 5, 2001, and was to become effective May 12, 2001. On May 10, 2001, the Idaho U.S. District Court preliminarily enjoined the Forest Service from implementing the Roadless Area Conservation Rule.

There are no lands in or immediately adjacent to the Missouri Heli Bug Project Area identified as inventoried roadless. Therefore, there will be no change to road access in relation to inventoried roadless areas under any alternative.

7.5 Interior Columbia Basin Ecosystem Management Project

This analysis was guided by integrated ecological assessments and strategies that began in 1993 by direction from President Clinton to “develop a scientifically sound and ecosystem-based strategy for management of eastside forests.” This direction resulted in the combined Bureau of Land Management and Forest Service project known as the Interior Columbia Basin Ecosystem Management Project (ICBEMP). The ICBEMP project is discussed briefly in the EA (page II-3).

The Missouri Project Area is in ICBEMP Forest Cluster #4, which emphasizes reducing risk to ecological integrity and species viability (USDA Forest Service, 1996, Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin). The primary risks to ecological integrity within Forest Cluster #4 are risks to hydrologic and aquatic systems from fire potential, risks to late and old forest structures in managed areas, and risks in forest compositions that are susceptible to insect, disease, and fire (Integrated Scientific Assessment, page 113). Proposed activities in the Missouri Project Area would address these three primary risks in a manner consistent with Chapter 8 of the Integrated Scientific Assessment. The effectiveness of each alternative in addressing those risks is discussed for each appropriate resource (in the Aquatic Resources, Forest Vegetation, and Fire/Fuels sections).

A Final EIS for the Interior Columbia Basin project was released in December 2000, with a “proposed” decision. Once a Record of Decision is signed, National Forests and BLM Districts will begin implementing the new strategy. Although the scientific findings of the ICBEMP are not part of the Forest Plan for the Idaho Panhandle National Forests, they are expected to provide guidance for the revision of the Forest Plan. No decisions or guidelines for analysis were made exclusively on this information; however, the science behind the ICBEMP is used in the analyses for the Missouri Heli Bug project. When available, information and direction provided in the ICBEMP Record of Decision will be reviewed to determine whether a correction, supplement, or revision to the Missouri Heli Bug EA is necessary, in compliance with Forest Service Handbook 1909.15 (Chapter 18).

7.6 Northern Region Overview

The Northern Region Overview is briefly described in the EA (pages 2-3 and 2-4). Findings of the assessment conclude that there are multiple areas of concern in the Northwest Zone of the Region, but that "this subregion holds the greatest opportunity for vegetation treatments and restoration with timber sales. From a social and economic standpoint, using timber harvest for ecological restoration would be a benefit to the many communities which still have a strong economic dependency, more so than in other zones in the Region. Aquatic restoration should be focused on specific needs based on the zone aquatic restoration strategy." The timber management (timber harvest) tool best fits with the forest types in northern Idaho and is essential, for example, to achieve the openings needed to restore white pine and larch, and maintain upland grass/shrub communities.

The timber harvest, vegetation restoration, and fuels treatment activities that will occur under the Selected Alternative are consistent with the findings and recommendations of the Northern Region Assessment.

7.7 Forest Plan for the Idaho Panhandle National Forests

General management direction for the Idaho Panhandle National Forests is found in the Forest Plan, which provides Forest-wide goals and objectives (Forest Plan, Chapter II). The standards and guidelines for the Forest Plan (Forest Plan, Chapter II) apply throughout the Resource Area. In development of the alternatives, standards and guidelines of the Inland Native Fish Strategy were used specifically to protect water and aquatic biota within the Resource Area. The Inland Native Fish Strategy was prepared in July, 1995, to provide interim direction to protect habitat and populations of resident native fish outside of anadromous fish habitat in eastern Oregon, eastern Washington, Idaho, western Montana, and portions of Nevada (USDA Forest Service, 1995). Under the authority of 36 CFR 219.10(f), the decision amended Regional Guides for the Forest Service’s Intermountain, Northern, and Pacific Northwest Regions and Forest Plans in the 22 affected Forests, including the Idaho Panhandle National Forest. For more specific information, please refer to Section 2.6.2.A – Features Designed to Protect Aquatic Resources.

I have evaluated features of the Selected Alternative against Forest Plan goals and objectives, as well as the resource standards for consistency with the Forest Plan. The Forest Plan is discussed briefly in Chapter 2 of the EA (page 2-4), with disclosure of consistency with Forest Plan standards for each resource in Chapter 3

of the EA. All management activities included in the Selected Alternative are in full compliance with and generally exceed Forest Plan goals, objectives and standards, including the Inland Native Fish Strategy amendment to the Forest Plan. **For additional discussion of consistency with the Forest Plan, please refer to the discussion under “National Forest Management Act,” in this Decision Notice.**

7.8 Coeur d’Alene River Basin Geographic Assessment

The Geographic Assessment for the Coeur d'Alene River basin is discussed in the EA (page 2-4). The assessment provides a description of the historic and current ecological, social, and economic conditions of the subbasin. The recommendations and strategies presented in the Geographic Assessment were based on three major groups of findings: social and economic, landscape and terrestrial, and aquatic. The findings of the assessment proved to be consistent with the findings of the Upper Columbia River Basin findings at the next scale down. To identify the overall strategy for the Coeur d'Alene River Basin, the terrestrial, watershed, wildlife and recreation (sense of place) maps were overlaid. The highest priority for active restoration becomes 1) non-functioning watersheds with serious terrestrial problems; and 2) functioning-at-risk watersheds with serious terrestrial problems (Geographic Assessment, pages 62-65).

The Selected Alternative, though small in scope, does reintroduce seral species such as western white pine, ponderosa pine, and larch back into the ecosystem in areas of high timber mortality. The geographic assessment refers to the substantial reduction that has occurred to component and the need to restore this vegetative component back into the ecosystem.

7.9 Endangered Species Act (ESA)

Within Section 7, federal agencies are required to carry out programs to conserve Endangered and Threatened species. Consultation is required to ensure that any action authorized, funded or carried out by a Federal agency is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The Coeur d'Alene River District Wildlife Biologist, Fisheries Biologist, and Botanist evaluated the Selected Alternative (modified Alternative 2) in regard to Threatened and Endangered wildlife, fish and plant species. Findings are disclosed in the EA (Chapter 3 and Appendix A) and in the Biological Assessment and Evaluations (Project Files). The findings are summarized briefly below.

- **Wildlife:** *There will be no effect to wolves, bald eagles, lynx, or grizzly bears as a result of this project. There are no known wolf packs on the Coeur d'Alene River Ranger District. There have been no observations of individual wolves reported in the vicinity of the project area. There is no winter range proposed for harvest under this proposal. None of the proposed harvest units or helicopter flight paths would affect potential bald eagle habitat. Beaver Creek could provide habitat for bald eagle; however due to settlement along the creek, habitat is considered marginal. No suitable nesting sites exist within or near the project area. The nearest helicopter landing would be over ¼ mile from Beaver Creek. The area does not lie within any lynx analysis unit (LAU); preferred habitat for this species does not occur within the project area. The project area is not in a grizzly bear recovery area and the grizzly bear is not likely to occur on the district.*
- **Fish:** *No Threatened or Endangered fish species are found within the cumulative effects area for this project. Neither white sturgeon or their habitat are found presently or historically within the project area or any watershed potentially affected by this project. An evaluation of effects to fisheries was completed as described in the Environmental Assessment (Water Resources/Fisheries). There will be no effect to fisheries within Beaver Creek or its tributaries. With implementation of the Selected Alternative, the current conditions for species viability would be maintained. Fish passage will remain unaffected by implementation of the Selected Alternative.*

- **Plants:** *Field surveys were completed in the project area in August 2001. There would be no effect to the Threatened plant species water howellia (Howellia aquatilis), Ute ladies-tresses (Spiranthes diluvialis) or Spalding's catchfly (Silene spaldingii) as a result of activities under the Selected Alternative because suitable habitat does not occur for these species in the project area. There will be no direct, indirect or cumulative effects to these species as a result of the project activities. No mitigation measures are required related to these Threatened plant species.*

Based on these determinations, I find the Selected Alternative is consistent with the Endangered Species Act.

7.10 Clean Air Act

The Forest-wide standard for air quality is to coordinate all Forest Service management activities to meet the requirements of the State Implementation Plans, Smoke Management Plan and Federal air quality standards (Forest Plan, page II-9). This will be done under the Selected Alternative, and burning will be conducted in a manner that will meet air quality requirements (EA, pages 2-16, A-7).

The monitoring of air pollutants during prescribed burning seasons is used to eliminate burning during times when such activities would result in violations of the State standards, including unacceptable impacts to non-attainment areas. The North Idaho/Montana Airshed Group monitors smoke management for air quality; the Forest Service voluntarily ceases burning operations to avoid violation of State standards. The Idaho Panhandle National Forests coordinate and schedule burning activities to maintain air quality. Burning plans addressing smoke management are prepared by qualified personnel. The Coeur d'Alene River Ranger District implements burning projects in Airshed #11. The monitoring of air pollutants during prescribed burning periods has not recorded any violations of the State standards to date.

Because use of prescribed fire will be based on these smoke management guidelines, current air quality standards will not be exceeded (EA, page A-7). Over the long-term, prescribed fire may reduce total particulates by reducing the risk of large wildfires that cannot be managed for emissions. This project meets the Clean Air Act and state monitoring requirements through coordination with the State prior to burning, and the use of burning techniques that minimize smoke emissions (Project Files, Air Quality).

7.11 Clean Water Act

The Clean Water Act (as amended, 33 U.S.C. 1323) directs the Forest Service to meet state, interstate and local substantive as well as procedural requirements with respect to control and abatement of pollution in the same manner and to the same extent as any nongovernmental entity. The Forest Service has the statutory authority to regulate, permit and enforce land-use activities on the National Forest System lands that affect water quality.

The Forest Service has agreements with the States to implement Best Management Practices (BMP) or Soil and Water Conservation Practices for all management activities to meet the objectives for Forest Practices. Monitoring would be designed to demonstrate the implementation of BMPs and provide feedback concerning their effectiveness in protecting water quality. Watershed conditions that contribute to water quality that is impaired would be improved through restoration projects and through scheduling of timber harvest and road building activities. Riparian areas would be managed to meet objectives for riparian-dependent resources (fish and wildlife habitats, water quality, stream channel integrity, vegetation, public water supplies).

Under authority of the Clean Water Act, the EPA and the States must develop plans and objectives (TMDLs) that will eventually restore listed stream segments. In lieu of those plans, Forest Service will demonstrate or find that their actions will not result in a net substantial increase in the pollutant of concern or prohibit or delay potential recovery (IDHW, 1997; USFS, 1995). The Selected Alternative is consistent with the Clean Water Act and Water Quality Limited Listings (EA, page 3-39).

Based on the Water Resources and Fisheries effects analyses in Chapter III (pages 3-28 through 3-39, and 3-40 through 3-54), and measures outlined in the EA to protect soil and water resources (page 2-15), I find the Selected Alternative meets the requirements of the Clean Water Act.

7.12 Environmental Justice Act

Executive Order 12898, issued in 1994, ordered federal agencies to identify and address the issue of environmental justice; i.e. adverse human health and environmental effects that disproportionately impact minority and low-income populations. Based on the composition of the affected communities and the cultural and economic factors, the Selected Alternative will have no adverse effects to human health and safety or environmental effects to minority, low-income, or any other segments of the population. Please refer to the Project Files, "Environmental Justice." There were no public comments related to environmental justice.

7.13 Recreational Fishing Act

Executive Order 12962 (June 7, 1995) identifies objectives to improve the quantity, function, sustainable productivity, and distribution of federal actions on aquatic systems and recreational fisheries, and document those effects.

The analysis and documentation provided in the Environmental Assessment meets the requirements of the Recreational Fishing Act. Information on the effects to aquatic systems is provided in the Water Resources section (pages 3-28 through 3-39). Information on the effects to fish species are discussed in the effects analysis and tables in the Fisheries section (pages 3-40 through 3-54). The analysis discusses both habitat and populations. As populations and habitat are affected, either negatively or positively, the recreational fishing should respond similarly. Since there is no measurable effect to the watershed under the Selected Alternative, there is no measurable effect to the fisheries resource.

7.14 National Fire Plan

In 2000, over 92,000 wildland fires burned more than 7.5 million acres of grass, brush and forested lands across the United States. In response, the Secretaries of the Departments of Agriculture and the Interior developed an interagency approach to respond to severe wildland fires, reduce their impacts on rural communities, and assure sufficient firefighting capacity in the future. The "National Fire Plan" identifies five key program areas designed to respond to the severe wildfires of 2000, to reduce their impacts on rural communities, and to enhance firefighting capabilities in the future. In Idaho, a total of over \$91.3 million has been allocated to these programs. Specific proposals were submitted by field units (such as Ranger Districts) for considerations. The Missouri Heli Bug project is not a National Fire Plan proposal, therefore no discussion of the National Fire Plan was warranted in the Environmental Assessment.

7.15 National Forest Management Act (NFMA)

The National Forest Management Act and accompanying regulations require that several other specific findings be documented at the project level. The following addresses our findings related to:

- *Forest Plan Consistency*
- *Resource Protection*
- *Vegetation Manipulation*
- *Silvicultural Practices*
- *Even-aged Management*

7.15.1 Forest Plan Consistency (36 CFR 219.1(b))

Management activities are to be consistent with the Forest Plan [16 USC 1604 (i)]. The Forest Plan guides management activities [36 CFR 219.1(b)]. Consistency with the Forest Plan is discussed in more detail in Chapter 3 of the EA, by resource issue. The following provides a brief synopsis of consistency with the Forest Plan standards related to forest vegetation, fire and fuels, finances, watershed resources and fisheries, wildlife, scenery, and roadless areas.

1. Forest Vegetation: Forest Plan direction provides that timber management activities will be the primary process used to minimize the hazards of insects and diseases and will be accomplished by maintaining stand vigor and diversity of plant communities and tree species (Forest Plan II-8).

In stands identified for treatment, harvest is primarily associated with the removal of dead and dying trees (Environmental Assessment, page 3-14). This is consistent with Forest Plan direction that stands which are "substantially damaged by fire, wind throw, insect or disease attack, or other catastrophe may be harvested where the salvage is consistent with silvicultural and environmental standards" (Forest Plan II-32).

Regeneration activities are identified for stands in which the majority of the trees have been killed (Environmental Assessment, page 3-14). Following site preparation, regenerated stands would be planted with seral species (white pine, larch, and ponderosa pine) to promote stand structures and species composition that reduce susceptibility to insect and disease damage. This is consistent with Forest Plan direction that "regeneration with species combinations that are least susceptible to root disease is the primary protection objective for the root rot diseases" (Forest Plan II-10) and that "reforestation will feature seral tree species" (Forest Plan II-32). All stands identified for regeneration harvests are on lands suitable for timber production and can be adequately restocked within 5 years of the final harvest (Environmental Assessment, p. 3-15; IPNF Monitoring, 1998, page 7). In accordance with Forest Plan direction, stands will be regenerated with trees from seed that is well adapted to the specific site conditions and will be regenerated with a variety of species.

There are no stands in which clearcutting was considered the optimal silvicultural treatment for the stand; no clearcutting will occur under the Selected Alternative (Environmental Assessment, page 3-14).

The Forest Plan states "openings created by even-aged silviculture will be shaped and blended to forms of the natural terrain to the extent practicable; in most situations they will be limited to 40 acres. Creation of larger openings must conform with current Regional guidelines" (Forest Plan II-32). The Northern Region Guide and FSM 2400-R1 Supplement 2400-96-3 state that "where natural catastrophic events such as fire, windstorms, or insect and disease attacks have occurred, 40 acres may be exceeded without 60 day public review and Regional Forester approval, provided that the public is notified in advance and the environmental analysis supports the decision" (FSM 2471.1). There are no stands proposed for treatment

that would, either alone or in conjunction with existing created openings, exceed the 40 acre opening limitation (Environmental Assessment, page 3-14).

2. Fire and Fuels: The goal of the Forest Plan is to provide efficient fire protection and fire use to help accomplish land management objectives (IPNF Forest Plan, Chapter II, pages II-10 and II-38). Under the Selected Alternative, fuels treatments will make progress toward reducing the potential intensities of wildfire, although at a small scale (Environmental Assessment, page 3-23).

3. Finances: Forest-wide goals, objectives, and standards for finances are not specifically addressed in the Forest Plan. This issue is addressed indirectly in the discussion of community stability. Chapter II of the Forest Plan states, "Management activities will continue to contribute to local employment, income, and lifestyles. The Forest will be managed to contribute to the increasing demand for recreation and resource protection while at the same time continuing to provide traditional employment opportunities in the woods product industry," (Forest Plan, page II-11, Objectives).

The Selected Alternative will meet this Forest Plan direction because it would result in forest products over both the short and long terms (Environmental Assessment, page 3-28). Timber harvest will contribute (to a small extent) to the continuing operation of local mills, directly and indirectly enhancing the local and state economy through employment and tax revenues (Environmental Assessment, page 3-28).

4. Watershed Resources and Fisheries: The Selected Alternative is consistent with Forest Plan Standards for water (Forest Plan, page II-33) because of 1) the low level of harvest, 2) the distance between harvest units and the stream channel, 3) the lack of any road construction or reconstruction, and 4) implementation of Best Management Practices (BMP's). Models, field data, monitoring data, and professional judgment were used in the analysis to approximate the effects of activities on the water resource (Environmental Assessment, pages 3-28 and 3-29).

The Inland Native Fish Strategy has been implemented as amendments to the Forest Plan of the Idaho Panhandle National Forests. The Selected Alternative is consistent with this direction (Environmental Assessment, pages 3-39 and 3-54). The amendments require mitigation of environmental effects of management decisions. Specified riparian management goals and objectives have been developed, and Riparian Habitat Conservation Areas (RHCA) are defined and delineated. Riparian management and Riparian Management Objectives (RMO) are addressed using site-specific analysis and supportive data, and watershed analyses. The strategy also specifies standards and guidelines, which must be applied for certain activities in RHCAs. These are incorporated into the action alternatives as specified in Chapter 2 of the Environmental Assessment (page 2-15).

Standards and guidelines from Inland Native Fish Strategy were used specifically to protect water and aquatic biota within the project area. Standard widths for defining interim Riparian Habitat Conservation Areas were utilized without modifications. The road management standards and guidelines were applied only to roads used or affected by the proposed project (timber sale, obliterated, closed or used for slash disposal or reforestation). The Road Management Objectives were applied only within the project area boundary, and only on those roads used for the harvesting or hauling of timber.

The IPNF Forest Plan contains standards for fry emergence that are no longer valid since the Inland Native Fish Strategy was developed. This section explains why.

The objectives for fisheries in the Forest Plan state that the forest "will be managed to maintain and improve fish habitat capacities in order to achieve cooperative goals with the State Fish and Game Department and to comply with state water quality standards. Sediment arising from land management activities will be managed so that in forest fisheries streams the objective is to maintain 80 percent fry emergence success as measured from pristine condition" (II-7). The first two standards for fish use similar language (II-29). The

Fishery/Watershed Analysis to determine effects of land management activities on fry emergence is described in Appendix I (I-1, 2).

Appendix I requires that if, during the environmental assessment process, cumulative effects of the proposed and past activities on stream sedimentation are projected to result in greater than 20% reduction in fry emergence, then additional detailed analysis will be undertaken. The analysis is then used to determine the significance of the project on water resources. If the project is judged to have a “significantly negative effect” on water resources, it will be reviewed by the State for conformance with water quality standards prior to the final decision.

At the time the Forest Plan was written, models determining fry emergence (e.g., Stowell *et al.* 1983) were popular. These empirical models were later found to have limited application and were unreliable outside of where they were developed (J. Kershner, personal communication). In addition, the use of fry emergence survival (regardless of the threshold) as a surrogate for viability came into question, primarily for two reasons:

- *First, fry emergence is highly variable. This can be due to changing natural conditions (e.g., floods, temperature regimes, geology) or human-induced causes (e.g., increased sediment input, chemical spills). Both agents are at work in most cases so it is difficult to determine what proportion of egg-to-fry mortality is due to each cause. As a result the underlying relationship between sediment in redds and survival is difficult to predict (Chapman 1988).*
- *Second, and more important, egg-to-fry mortality is usually density-independent (i.e., a percentage of fry will survive regardless of the number of eggs). This means that in most cases there are enough fry to inhabit all available habitat within a stream. Therefore fry-to-smolt (sub-adult) survival, where density dependent mortality plays a significant role, is a more effective and appropriate predictor of population viability than egg-to-fry survival (for a review of these concepts see Hilborn and Walters 1992). Currently the indicator used as a surrogate of fry-to-smolt survival is stream habitat characteristics.*

The 1989 Forest Plan Evaluation and Monitoring Report documents the change away from use of the fry emergence standard (Item G-1, pages C-1 and C-2). The findings were that it was not a good monitoring tool to report stream health. G-1 was combined with item G-3, which includes a comprehensive array of fisheries and hydrology parameters.

The Inland Native Fish Strategy (INFS; USDA 1995) amended the Forest Plans “...except where existing Plan direction would provide more protection” for inland native fish habitat (page 4). All INFS standards and guidelines are intended to either make progress toward Riparian Management Objectives (which describe “good” fish habitat within the context of what is capable of the watershed) or to ensure that activities will not retard the natural rate of recovery of RMOs in a watershed (USDA 1995, A6-A16). In addition, the strategy states that actions that reduce habitat quality, whether existing conditions are better or worse than objective values, are not consistent with INFS direction (USDA 1995, A-3).

INFS supersedes the original IPNF Forest Plan direction because it offers far more protection to inland native fish habitat for the following reasons:

- *INFS directs the establishment of Riparian Habitat Conservation Areas (RHCAs) and only allows activities within RHCAs that maintain or improve, and do not retard, the attainment of the RMOs. The original Forest Plan direction actually permitted degradation of water resources at the discretion of the line officer, and allowed “significant” degradation after review by the State.*

- *Activities that reduce habitat quality to any extent are contrary to INFS direction, regardless of whether RMOs have been attained. The original Forest Plan direction allowed for apparent degradation of fish habitat by permitting up to a 20 percent reduction of potential fry emergence.*

In *The Lands Council v. Vaught* the U. S. District Court for the Eastern District of Washington, in its reading of the plain language of the INFS documents and giving deference to the Forest Service's expertise in interpreting its Forest Plans, concluded that INFS does supersede the Forest Plan in all areas where RHCA guidelines and standards apply (i.e., where delivery of sediment to streams is the identified threat that proposed project activities pose to fish habitat). The Forest Plan standards remain in effect in all other areas.

In conclusion, this project complies with original Forest Plan direction because, although fry emergence was not computed, a detailed analysis of the effects to fish habitat and water resources was developed as required in Appendix I; and the project has been determined to be fully consistent with the INFS Forest Plan amendment and state water quality standards for supporting beneficial uses (see Watershed discussion).

Fish Standard 3 directs that streams listed under this standard of the Forest Plan will be managed as low access fishing opportunities to maintain a diversity of fishing experiences for the public and to protect sensitive fish populations. Special road management provisions will be used to accomplish this objective. This standard does not apply under this project, since none of these low access streams are within the project area. See Forest Plan page II-30.

The Forest Plan also directs us to provide fish passage to suitable habitat areas by designing road crossings of streams to allow fish passage or by removing instream migration barriers (Forest Plan, page II-31, Fish Standard 4). The Selected Alternative would not build any new roads or create any new migration barriers. No migration barriers are known to exist on the proposed haul routes within National Forest jurisdiction; therefore there are no known opportunities to improve fish passage with this project (Environmental Assessment, page 3-53).

Fish Standard 5 (Forest Plan, page II-31) instructs us to utilize data from stream, river, and lake inventories to prepare fishery prescriptions that coordinate fishery resource needs with other resource activities, and to pursue fish habitat improvement projects to improve habitat carrying capacities on selected streams. Data and inventories have been and will continue to be collected on selected streams with other projects. Fish habitat improvement projects have been implemented and will continue to be a focus item across the Coeur d'Alene River Basin. The Missouri Heli Bug project is not one of those proposals.

Fish Standard 6 (Forest Plan, page II-31) directs us to coordinate management activities with water resource concerns as described in Management Area 16 (riparian corridors), Appendix I, and Appendix O of the Forest Plan. Design of the Selected Alternative was fully coordinated with the specifications found in the Forest Plan (Appendices I and O), and standards and goals stated for Management Area 16. Class I and II streams will receive protection beyond the requirements of the Forest Practices Act. The Selected Alternative was not designed to move all streams toward meeting Riparian Management Objectives. The project was designed to avoid entry into riparian areas (Environmental Assessment, page 3-54).

5. Wildlife: Forest Plan standards relating to wildlife were incorporated into all alternatives (Environmental Assessment, page 3-68). These standards addressed elk and elk goals, Threatened and Endangered species, Sensitive species and old growth management. Elk habitat potential was calculated with a model that incorporates "Guidelines for Evaluating and Managing Summer Elk Habitat in Northern Idaho" as specified on page II-27 (Item 1c) of the Forest Plan. The Selected Alternative is consistent with Forest Plan management direction, goals, objectives, standards and guidelines for the management and protection of wildlife and species (Environmental Assessment, page 3-68).

6. Scenery: The Selected Alternative will meet the assigned Visual Quality Objectives (Environmental Assessment, pages A-10, A-11).

7. Roadless Area: The Forest Plan directs that roadless areas be managed based on the direction and goals established for the respective management area within which they are located (Forest Plan, Chapter II, page II-4). There are no roadless areas in or immediately adjacent to this project area (Environmental Assessment, page 2-2).

7.15.2 Resource Protection (36 CFR 219.27(a))

The following statements address resource protection requirements of the National Forest Management Act:

1. **Activities will conserve soil and water resources and will not allow significant or permanent impairment of the productivity of the land.** At the tributary scale, no direct or indirect effects to beneficial uses are anticipated (Environmental Assessment, page 2-21). There would be no expected increase in sediment associated with activities. The only potential sediment generation would be associated with road maintenance, which is a practice that would normally occur even under the No-Action Alternative. The implementation of Best Management Practices and adherence to the Inland Native Fish Strategy standards and guidelines will provide protection for riparian habitat and control the majority of the sediment associated with these activities.

The cumulative effects from management activities will not be measurable at this scale for increases in peak flows or sediment over what would occur under the No-Action Alternative. Increase in flow will be primarily due to the mortality of trees from the Douglas-fir beetle. Minor additional harvest to create conditions to allow site preparation and reforestation of low stocking sites will not result in a measurable increase in magnitude or quantity of flows at the tributary or watershed scale. No measurable effects will occur in stream channel conditions.

Alternative development was based in part on the "Soils Guidelines for NEPA Analysis" (Niehoff, 1998) and recommendations of the Intermountain Forest Tree Nutrition Cooperative (IFTNC). To minimize erosion and ensure compliance with State water quality standards, timber harvest associated with the Selected Alternative will be completed using Best Management Practices (Environmental Assessment, pages 2-15 and A-7). Please refer also to the Environmental Assessment, Chapter 3, Watershed Resources, and the Project Files, Soils.

2. **Activities will not affect most potentially serious or long-lasting hazards (flood, wind, erosion, etc.).** To minimize erosion and ensure compliance with State water quality standards, all road construction and timber harvest associated with this project will be completed using Best Management Practices (Environmental Assessment, page 2-15). As stated above, cumulative effects from management activities will not be measurable at this scale for increases in peak flow over what would occur under the No-Action Alternative. Under the Selected Alternative (and reasonably foreseeable activities), treatments will reduce fuel accumulations, re-introduce seral species where present levels of stand mortality make this desirable, improve the health and vigor of some stands containing higher stocking of larch and ponderosa pine, and make progress toward reducing potential intensity and severity of wildfire in some stands (Environmental Assessment, pages 2-19 through 2-22)
3. **The timber resource will be managed consistent with the Forest Plan objectives of minimizing hazards due to insects and disease by maintaining stand vigor and diversity of plant communities and tree species.** Timber harvest and associated reforestation will occur in stands where the majority of trees have been killed. Following site preparation, stands will be planted with seral species to promote stand structure and species composition that reduce susceptibility to insect and disease damage (Environmental Assessment, page 3-14).

4. **Water bodies and their values are appropriately protected.** In development of the alternatives, standards and guidelines of the Inland Native Fish Strategy were used specifically to protect water and aquatic biota within the Resource Area (DN, page 5; Environmental Assessment, page 2-15). Streamside buffers will be applied along harvest units, in order to meet the riparian management objectives of maintaining slope stability in potentially sensitive areas, maintaining stream temperature, and providing a long-term supply of large woody debris. As stated under Item 1, above, no direct or indirect effects to beneficial uses of water resources are anticipated at the tributary scale (Environmental Assessment, page 2-21). Sediment associated with activities will be minimal, is not expected to have an effect on channel conditions, and will not be measurable at the tributary scale. The cumulative effects from management activities most likely will not be discernible at this scale for increases in peak flows or sediment over what would occur under the No-Action Alternative. Increase in flow will be primarily due to the mortality of trees from the Douglas-fir beetle. Additional mortality due to harvest of green trees will not result in a measurable increase in magnitude or quantity of flows (Environmental Assessment, pages 2-21 and 3-37 through 3-39).
5. **The activities will provide for and maintain a diversity of plant and animal communities.** The Selected Alternative will increase vegetative diversity by reforesting with seral species on approximately 28 acres (Decision Notice, page 3). There will be no effect to threatened plant species, or to recently listed threatened plant species (Environmental Assessment, page A-6; and Project Files, Biological Assessment). There are no Endangered plants identified for the IPNF. While some Sensitive plant individuals may be impacted by the implementation of activities, cumulatively these activities will have insignificant impacts to Sensitive plant populations or suitable habitat (Project Files, Biological Assessment). Areas of high potential Sensitive plant habitat have been surveyed. No threatened, endangered, or sensitive plants were found (Project Files, Biological Assessment and Evaluation).

The Selected Alternative will maintain a diversity of animal communities. There will be no effect to gray wolves, bald eagles, lynx, or grizzly bears (Environmental Assessment, pages A-2 and A-3, Project Files, Biological Assessment). The project activities may impact individual black-backed woodpeckers and fishers or their habitat, but will not likely trend toward federal listing or reduced viability for the populations or species. For more information regarding effects to Threatened, Endangered, Proposed and Sensitive species please refer to the Environmental Assessment, pages 2-19 through 2-22, 3-40 through 3-68, and A-2 through A-6; and the Project Files, Biological Assessment and Biological Evaluations.

The Selected Alternative is consistent with the January 10, 2001 Executive Order describing the Responsibilities of Federal Agencies to Protect Migratory Birds. The analysis of effects to wildlife evaluated effects of proposed activities on neotropical landbirds (migratory birds), as disclosed in the Environmental Assessment (page 3-68, A-5). As more information and direction related to this Executive Order becomes available, the analysis and documentation related to the Missouri Heli Bug Environmental Assessment project will be reviewed to determine whether a correction, supplement, or revision to the document is necessary, in compliance with Forest Service Handbook 1909.15 (Chapter 18).

6. **Activities will either not affect or will maintain sufficient habitat for viable populations of existing native vertebrate species and management indicator species consistent with the multiple-use objectives established in the Forest Plan.** As stated earlier, there will be no effect to gray wolves, bald eagles, lynx, or grizzly bears. The project activities may impact individual black-backed woodpeckers and fishers or their habitat, but will not likely trend toward federal listing or reduced viability for the populations or species. Over the long term, the regeneration of treatment areas to pines and larch habitats will provide more habitat that is preferred for feeding and nesting than is currently

available in the project area (Environmental Assessment, page 3-62). There will be no effect to other Sensitive species.

The Forest Plan goal for elk habitat potential in this Elk Habitat Unit is 55 percent; the current level is 49 percent. There will be some loss of some hiding and thermal cover beyond what bark beetles and root disease have already done. Thermal cover would be reduced, to a minor extent, beyond what occurred as a result of bark beetles in the regeneration units. This would occur with the removal of smaller diameter green trees that are not expected to survive an underburn. There would also be some loss of hiding cover associated with the loss of advanced regeneration in the root disease portions of the regeneration units. The site preparation burning of the regeneration units should provide preferred foraging habitat.

Approximately one mile of existing gated road would be opened for activity. This could result in a slight loss of security within the project area. However, mitigation measures will include the closure of the gate at the end of each day. Based on the anticipated effects and features designed to protect wildlife habitat, the elk habitat potential will remain at 49 percent during and after sale activities are complete.

7. **Management prescriptions have been assessed prior to project implementation for potential physical, biological, aesthetic, cultural, engineering, and economic impacts of the Selected Alternative and are consistent with multiple uses planned for the area.** These potential impacts have been assessed and are disclosed in the Environmental Assessment (Chapter 3) with supporting information in the Project Files.
8. **Implementation of the Selected Alternative will not affect critical habitat for Threatened and Endangered species.** The Coeur d'Alene River District Wildlife Biologist, Fisheries Biologist, and Botanist evaluated the Selected Alternative (modified Alternative 2) in regard to Threatened and Endangered wildlife, fish and plant species. Findings are disclosed in the Environmental Assessment (Chapter 3) and summarized in the Biological Assessment and Evaluations (Project Files). The findings are summarized briefly under "Endangered Species Act" on page 13 of this decision document.
9. **There are no right-of-way grants being issued as part of the activities.**
10. & 11. **There is no road construction associated with the Selected Alternative.**
12. **Applicable Federal, State, and local air quality standards will be met.** The monitoring of air pollutants during prescribed burning seasons is used to eliminate burning during times when such activities would result in violations of the State Standards, including unacceptable impacts to non-attainment areas. The North Idaho/Montana Airshed Group monitors smoke management for air quality; the Forest Service voluntarily ceases burning operations to avoid violation of State standards. The Idaho Panhandle National Forests coordinate and schedule burning activities to maintain air quality. Burning plans addressing smoke management are prepared by qualified personnel. The Coeur d'Alene River Ranger District implements burning projects in Airshed #11. The monitoring of air pollutants during prescribed burning periods has not recorded any violations of the State standards to date. Because use of prescribed fire will be based on these smoke management guidelines, current air quality standards will not be exceeded (Environmental Assessment, page A-7). Over the long-term, prescribed fire may reduce total particulates by reducing the risk of large wildfires that cannot be managed for emissions. This project meets the Clean Air Act and state monitoring requirements through coordination with the State prior to burning, and the use of burning techniques that minimize smoke emissions (Project Files, Air Quality).

7.15.3 Vegetation Manipulation (36 CFR 219.27(b))

The following statements address vegetation manipulation requirements of the National Forest Management Act:

1. **Be best suited to the goals stated in the Forest Plan.** After review of the expected environmental consequences of the various alternatives (Environmental Assessment, Chapter 3), I believe the Selected Alternative is well suited to initiate Forest Plan direction and meet the multiple-use goals established for the area. Please refer to the “Forest Plan Consistency” discussion in this decision document (Section 6.15.1).
2. **Assure that technology and knowledge exists to adequately restock lands within five years after final harvest.** Technology and knowledge does exist to comply with this requirement (Environmental Assessment, page 3-15, and IPNF Forest Plan Monitoring and Evaluation Report, 1998, page 7). Please refer to the “Forest Plan Consistency” discussion in this decision document (Section 6.15.1).
3. **Not be chosen primarily because they will give the greatest dollar return or greatest output of timber (although these factors shall be considered).** Economic factors were considered in my decision; however, the Selected Alternative was chosen primarily based on the benefits to the environment and responsiveness to Forest Plan goals. Finances are discussed in the Environmental Assessment, pages 3-23 through 3-28.
4. **Be chosen after considering potential effects on residual trees and adjacent stands.** The analysis considered the effects on residual trees and adjacent stands (Chapter 3 of the Environmental Assessment, Forest Vegetation discussions, pages 3-9 through 3-15). These effects were considered in my decision. I find the treatments that will occur under the Selected Alternative are designed to protect reserve trees and adjacent stands, including riparian areas, to the extent possible.
5. **Be selected to avoid permanent impairment of site productivity and to ensure conservation of soil and water resources.** The use of Best Management Practices (BMPs), avoidance of problem soil areas, regulation of yarding and site preparation operations, and the application of specific features of the Selected Alternative will assure that site productivity is maintained and soil and water resources are protected (DN, Section 6.2 – Features Designed to Protect Aquatic Resources, and the Project Files, “Soils.”
6. **Be selected to provide the desired effects on water quality and quantity, wildlife and fish habitat, regeneration of desired tree species, forage production, recreation uses, aesthetic values, and other resource yields.** After review of the Environmental Assessment, I find that the Selected Alternative will provide the desired effects on vegetation resources within the project areas, and will have acceptable effects on water, wildlife, and soil resources within the project areas. Please refer to the discussions of effects to resources in Chapter 3 of the Environmental Assessment, and the “Forest Plan Consistency” discussions in this decision document (Section 7.15.1).
7. **Be practical in terms of transportation and harvesting requirements and total costs of preparation, logging and administration.** Data presented in the Environmental Assessment and Project Files relative to transportation, economics and harvesting requirements indicate to me that the Selected Alternative is feasible and practical. Please refer to the Financial discussions in the Environmental Assessment (pages 2-21, and 3-23 through 3-28) and the Project Files.

7.15.4 Silvicultural Practices (36 CFR 219.27(c))

No timber harvest, other than salvage sales or sales to protect other multiple-use values, shall occur on lands not suitable for timber production [16 U.S.C. 1604 (k)].

Guidelines for determining suitability are found in the Forest Plan. Missouri Heli Bug harvest units are within productive habitat types as described in the Forest Plan. Tree harvest will occur within Management Area 1 as described in the Forest Plan (Forest Plan, Chapter III). Management Area 1 consists of lands designated for timber production.

7.14.5 Even-aged Management (36 CFR 219.27(d))

When timber is to be harvested using an even-aged management system, a determination that the system is appropriate to meet the objectives and requirements of the Forest Plan must be made. Where clearcutting is to be used, it must be determined to be the optimum harvest method [16 U.S.C. 1604 (g)(3)(F)(i)].

The Selected Alternative will employ the use of even-aged management systems (regeneration harvests) on 28 of the total 47 acres to be harvested (the remaining 19 acres will be salvage harvest). Regeneration harvests are proposed for most stands in which a large component of the overstory stand basal area has been lost to bark beetles (Environmental Assessment, page 3-14). No clearcutting is planned.

The location, shape of openings, and retention of all healthy large overstory component on the site using group and irregular shelterwood harvest systems will achieve the desired combination of multiple-use objectives. The four regeneration units range from 3 to 15 acres in size. The harvest systems will retain 20-30% of the overstory component on site. Shelterwood harvest prescriptions followed by planting will allow for the establishment of pines and larch on the site. I have reviewed the silvicultural information in the Environmental Assessment and Project Files and the site-specific management objectives within the Forest Plan and have determined that even-aged management practices are the appropriate method to achieve the multiple resource objectives on the sites selected for harvest.

8. Finding Of No Significant Impact

The direct, indirect and cumulative effects of the project activities have been reviewed as documented in this Decision Notice, the Environmental Assessment, and the Project File. The setting of this proposal is in a localized area, with implications only for the landscape, drainages and stands in the analysis area. Consideration of the proposed action is based on its impact on the ecosystem, local communities, county, and at the affected resource level. It does not have any large or lasting affect on society as a whole, the nation, or the state.

Based on this review, it has been determined that there are no significant beneficial or adverse impacts on the physical, biological, or social portions of the human environment. The Selected Alternative is consistent with the management direction, standards, and guidelines outlined in the Forest Plan for the Idaho Panhandle National Forests.

Significant impacts (both beneficial and adverse): Effects associated with the Selected Alternative are discussed in Chapters II and III of the Environmental Assessment. The impacts are within the range of those identified in the Forest Plan. The actions would not have significant effects on other resources identified and described in the Environmental Assessment and Project Files.

Activities will result in temporary and low-impact effects. Harvesting and log hauling activity will increase traffic on Forest Service Roads and on county roads that are the primary access roads into the area. Precautionary signing will provide safety in areas of activity.

No significant increase in water yields or sedimentation in the analysis area streams is expected, and State water quality guidelines will be met. Implementation of Inland Native Fish Strategy standards and guidelines will protect stream courses from sedimentation (EA, Chapters 2 and 3).

It is my determination that the Selected Alternative will have no significant effects on public health and safety or on resource attributes of the project area.

Unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farms, wet lands, wild and scenic rivers, or ecologically critical areas: The analysis area does not contain nor is it in the immediate proximity to such areas. The Selected Alternative will have no significant effect on unique resource characteristics.

The degree to which the effects on the quality of the human environment are likely to be highly controversial: The effects of these activities on the quality of the human environment are not highly controversial. Past monitoring has determined that actual effects of similar projects are consistent with estimated effects of the proposed activities. There is wide professional and scientific agreement on the scope and effects of these actions on the various resources.

The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risk: The planned actions are similar to actions implemented in other areas on National Forest System, state, county, and private lands. Effects will be similar to those of past actions. The analysis considered the effects of past actions as a frame of reference in conjunction with scientifically-accepted analytical techniques, available information, and best professional judgment to estimate effects of the proposal.

It is my conclusion that there are no unique or unusual characteristics of the area which have not been previously encountered that would constitute an unknown risk upon the human environment.

The degree to which the action may establish a precedent for future actions with significant effects or presents a decision in principle about future consideration: The Selected Alternative is not setting a precedent for future actions with significant effects. Management practices are consistent with the Forest Plan and with the capabilities of the land. This action does not represent a decision in principle about a future consideration.

Whether the action is related to other actions with individual insignificant but cumulative significant impacts: The combined effects of past, other present, and reasonably foreseeable actions are discussed in the Environmental Assessment. There is no indication of significant adverse cumulative effects to the environment (EA, Chapters 2 and 3).

The degree to which the action may adversely affect districts, sites, highway structures, or objects listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historic resources: There are no features in the area that are listed or are being considered for listing on the National Register of Historic Places. All cultural resources would be protected (Decision Notice, Section 6.8; and Environmental Assessment, page 2-18). The potential for impacts to undiscovered sites is addressed by compliance with Forest Plan standards and guidelines, and through the use of standard timber sale contract clauses.

The degree to which the action may adversely affect an Endangered or Threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973: It was determined that the proposed action would not affect any Threatened, Endangered or candidate wildlife, fish, or plant species which may occur in the area as described in Section 7.9 of this Decision Notice. A Biological Assessment has been completed and is part of the Project Files.

Whether the proposed action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment: The proposal meets federal, state and local laws for air and water quality, streamside management, riparian areas, cultural resources, and Threatened and Endangered species, and meets National Environmental Policy Act disclosure requirements as described in this Decision Notice and the Environmental Assessment.

9. Comparison To Other Alternatives Considered

As stated earlier, my decision is based on:

- *the extent to which each alternative addresses the purpose and need for action*
- *how well each alternative responds to environmental issues and concerns identified by the public, other agencies, and Forest Service resource specialists*
- *consistency with the goals and findings of Forest policy and legal mandates*
- *effects of the selected alternative in comparison to other alternatives considered*

The following addresses each of these criteria and provides my rationale for selecting a modified Alternative 2 rather than one of the other alternatives.

Alternative 1 (No-Action)

I did not select Alternative 1 for implementation because it would not address the purpose and need for action. There would be no recovery of the economic value of damaged timber and no improvement in the vegetative resources. There would also be no reduction in the long-term fire hazard as a result of the timber harvest and a combination of fuels treatment methods. These items are discussed in the Environmental Assessment (pages 2-10, 3-10, 3-12, 3-18, 3-19, 3-21, and 3-28). Alternative 1 would address concerns identified by those members of the public who do not want timber harvest to occur, but would not respond to the vegetation and fuels-related concerns.

Alternative 3

I did not select Alternative 3 for implementation because it only addressed timber mortality and low stand stocking levels associated with beetle mortality. It did not take a larger look at mortality from root diseases and other causal agents that are reducing stocking levels in areas adjacent to the beetle mortality. The Selected Alternative provides for a larger assessment of the area and creates logical treatment units that can be implemented while maintaining visual quality objectives for the area. Though not as economical as alternative 3, the Selected Alternative would provide for the greatest investment return in re-establishing pine and larch species back into the ecosystem and meeting direction in the Forest Plan and Upper Columbia River Basin Assessment.

10. Public Involvement

Scoping is an early process for identifying the issues related to the proposed action, and the extent of those issues. The public was notified of this project in several ways:

- *"Quarterly Schedule of Proposed Actions" for the IPNFs (January 2001 issue)*
- *legal ad in the newspaper of record (Spokesman-Review) dated February 16, 2001*
- *scoping letter for those that requested additional information dated February 16, 2001*

During scoping, letters were received from Bryan Bird, (Forest Conservation Council), Jeff Juel (Ecology Center), and Mike Mihelich (Kootenai Environmental Alliance). Copies of their letters and Forest Service response to comments were provided in the Environmental Assessment (Appendix A). Additional documentation is provided in the Project Files.

The Environmental Assessment was distributed to the public for review and comments in April 2002. Comments based on review of the Environmental Assessment were received from Mike Petersen (on behalf of The Lands Council, Ecology Center, National Forest Protection Alliance, and Forest Conservation Council); Mike Mihelich (Kootenai Environmental Alliance); Sherman Bamford (on behalf of The Ecology Center, The Lands Council, and Alliance for the Wild Rockies), Idaho Fish & Game, and individuals John H. Miller, John P. Miller, Robert A Hall, and Bruce Tompkins. Copies of the letters and our response to comments are provided in Attachment B of this Decision Notice.

11. Documents And Project Files

This Decision Notice summarizes some of the analyses that have led to this point in the process. More reports and analyses documentation have been referenced or developed during the course of this project and are part of the Project Files. All project files for the Missouri Heli Bug project are available for review by the public. Please contact the NEPA Coordinator at the Coeur d'Alene River Ranger District (Fernan Office), (208) 664-2318, to review the files.

12. Appeal Rights And Implementation

This decision is subject to appeal pursuant to 36 CFR 215. A written Notice of Appeal must be submitted within 45 days after the date of notice of this decision is published in the Spokesman-Review newspaper. The Notice of Appeal must be sent to the Appeal Deciding Officer (Regional Forester): **USDA Forest Service, Region 1, Attn: Appeals Deciding Officer (RFO), P.O. Box 7669, Missoula, MT 59807.**

It is the appellant's responsibility to provide sufficient written evidence and rationale to show why my decision should be remanded or reversed. An appeal submitted to the Appeal Deciding Officer becomes a part of the appeal record. An appeal must meet the content requirements of 36 CFR 215.14.

As a minimum, the Notice of Appeal must include:

- ✓ *a statement that your document is an appeal filed according to 36 CFR part 215*
- ✓ *your name, address and, if possible, telephone number*
- ✓ *the decision being appealed by title and subject, date of decision, and name and title of the Responsible Official*
- ✓ *the specific changes you want to see in the decision or the portion of the decision to which you object*
- ✓ *a statement of how my decision fails to consider comments previously provided either before or during the comment period specified in 36 CFR 215.6 and, if applicable, how you believe the decision violates law, regulation, or policy*

Your appeal will be dismissed if the preceding information is not included in the Notice of Appeal. If no appeal is received, implementation of this decision may occur five business days from the close of the 45-day appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

I am the Responsible Official for this decision. For more information regarding the project, contact Project Team Leader Bob Rehnberg at the Fernan Office of the Coeur d'Alene River Ranger District, (208) 664-2318.

Linda McFaddan (for)

6/13/02

JOSEPH P. STRINGER
District Ranger
Coeur d'Alene River Ranger District

Date

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ATTACHMENT A CORPORATE MONITORING INFORMATION

Long-term Monitoring of Ecosystem Core Data

The Idaho Panhandle National Forests are currently implementing a process to monitor changes to a number of ecosystem conditions resulting from project activities and natural disturbances. The overall focus of this monitoring is to evaluate changes in ecosystem condition (structure, composition, and function). The following ecosystem conditions (Core Data Monitoring Elements) have currently been selected for long-term monitoring: hydrologic integrity, wildlife security and public access, water yield, changes in forest structure outside the Historic Range of Variability (HRV), changes in species composition outside HRV, habitat loss and species decline, and changes in landscape pattern. The analysis for each project considers project-related changes to these conditions and anticipated changes are described in project environmental analysis documentation. Table A-1 displays the anticipated project related changes to these conditions.

Table A-1. Anticipated project related changes to ecosystem conditions.

Ecosystem condition	Core data to be Monitored	Project-related changes
Hydrologic integrity	Road density	Under the Selected Alternative, there is no change in road densities. There is no proposed road construction, either temporary or system. There is no road removal identified as a feature of the selected alternative.
Wildlife security and public access	Open road density	Approximately one mile of Road 933, which is currently gated, will be opened for sale activities. The gate would be closed at the end of each day’s activities and on weekends.
Water yield	Hydrologic openings (equivalent clearcut acres)	Mortality cause by bark beetles, root disease, and blister-rust have created the openings. Canopy reduction associated with the harvest of smaller or unhealthy green trees is a minor component. The selected alternative will result in an increase in 6 scattered equivalent clearcut acres over the no action alternative.
Changes in forest structure outside HRV	Forest structure by size and age class groups	Loss of forest structure under this proposal is very similar to that caused by the bark beetle outbreak and losses to root disease over time. The Selected Alternative will move 7 acres that were in small/medium sawtimber back to the seeding/sapling phase. This change is above what would occur under the no-action alternative however much of this change is occurring naturally due to losses to root disease and blister-rust mortality. Since bark beetles and root disease are a naturally occurring phenomenon, this proposal stays within the range of historic variability.
Changes in species composition outside HRV	Forest composition by forest cover type group	Implementation of the selected alternative will actually hasten the return to the historic range of variability beyond what would occur under the No-Action Alternative by returning pines and larch into the ecosystem in areas of high mortality as opposed to letting the areas regenerate back to fir. There will be a 28 acre increase in white pine, mixed with larch and ponderosa pine, which will trend toward more historic conditions.
Habitat loss and species decline	TES dry and moist/cold site habitat restoration	This project does not enter dry or moist/cold habitat types.
Changes in landscape pattern	Landscape pattern indicators (mean patch size and variability, edge density, etc.)	Changes in the landscape pattern created by the proposal follows the landscape pattern of mortality that naturally occurred as a result of a bark beetle outbreak and root disease. Regeneration harvest units will leave patches of healthy large trees retaining 20-30% of the overstory canopy on the site. This should result in a natural appearance on the hillside.

ATTACHMENT B PUBLIC COMMENTS

Introduction

The 30-day public review of the Missouri Heli Bug Environmental Assessment began in April 2002. Comments were received from Mike Petersen (on behalf of The Lands Council, Ecology Center, National Forest Protection Alliance, and the Forest Conservation Council), John H. Miller (individual), John P. Miller (individual), Robert A. Hall (individual), Mike Mihelich (Kootenai Environmental Alliance), and Sherman Bamford (The Ecology Center), Idaho Fish and Game, and Bruce Tompkins (individual). A synopsis of concerns expressed by these groups and individuals and our responses are provided below. Copies of the letters are provided at the end of this Attachment.

Comments received from Mike Petersen (on behalf of The Lands Council, Ecology Center, National Forest Protection Alliance, and the Forest Conservation Council)

Comments from The Lands Council refer to two different projects. It is believed that the first two comments refer to the Ponderosa Pine Restoration Project and are not included here.

A-1. Mr. Petersen states that they would like to see a restoration alternative for the Missouri Heli Bug project. He states that insects are a natural part of the forest, and asks, what is the role of insect predators and how will their numbers change if the project goes forward?

A watershed restoration only alternative was considered but eliminated (EA, page 2-9). A vegetative restoration alternative without commercial timber harvest was discussed in response to scoping comments provided by Bryan Bird, Forest Conservation Council (EA, Appendix A, page A-23, #4).

Due to the amount of time that passes from when trees are attacked, when crown symptoms begin to show and the length of time needed to fully analyze proposed timber management projects, we are rarely able to harvest beetle-attacked trees while the bark beetles are still present. Since we are not affecting the beetle population with timber harvest, we are not directly affecting the beetle predators either.

Scientific research, *Furniss, M.M.; McGregor, M.D.; Foiles, M.W.; Partridge, A.D. 1979. Chronology and Characteristics of a Douglas-fir Beetle Outbreak in Northern Idaho. USDA Forest Service Gen. Tech. Rpt. INT-59. Intermountain Forest and Range Experiment Station. 19 p., on page 18 states “As the susceptible trees are killed by beetles or removed by logging, or, as the environmental conditions improve (favoring growth and water relations), resistance to population expansion mounts. Size of infested groups decline and a higher proportion of attacked trees survive. Numbers of natural enemies appear to be independent of prey density; influence of enemies increases after the bark beetle population subsides. Populations are maintained at an endemic level primarily by tree resistance and natural enemies.”* As stated, natural predator populations appear to be independent of prey density and play a bigger role during endemic beetle population levels.

If Mr. Petersen’s concern is the effect that the reduction in dead trees would have on woodpecker populations, and hence Douglas-fir beetle populations, scientific research *Forest Insect and Disease Leaflet #5 – Douglas Fir Beetle, Pub. R1-96-87, Richard F. Schmitz and Kenneth E. Gibson, revised*

6/96, 8 pages, states (page 5), “Natural enemies include many parasitic or predacious insects, nematodes, and mites. Woodpeckers are not important predators of the beetle.”

A-2. Mr. Petersen expresses concern with the adverse economic effects of the national forest logging program, and the Forest Service’s failure to quantify such effects at the project level or for the program as a whole. The logging program increases costs of water purification and filtration, decreases the value of private timberlands, unfairly competes against alternative fiber and building material businesses, increases wildfire risk, increases repair and maintenance cost for highways and public roads, and decreases the number of jobs in recreation, tourism, fisheries, and alternative forest products.

Mr. Petersen makes these claims without providing any supporting documentation, except in terms of wildfire risk which will be discussed in a later response (A-18). To state that the logging program increases cost of water purification and filtration is not supported, and if documentation is present that logging somewhere has caused this, it may not apply to this area. The watershed analysis for this project concluded (EA, page 2-21) that “The cumulative effects from implementation of either of the action alternatives would not be measurable at the tributary or watershed scale for increases in peak flows or sediment over what would occur under the No-Action Alternative.”

Concerns that the logging program decreases the value of private timberlands, unfairly competes against alternative fiber and building material business appears to be resolved by Mr. Petersen on page 4 of his comment letter where he states, “Given the insignificant contribution of wood fiber to America’s consumption requirements from national forest lands (about 2% in 2000)...” The United States is a net importer of wood. Timber harvest on National Forest lands is a valuable tool for implementing timber stand management activities to meet desired future conditions of the forest, while at the same time producing renewable forest products.

Public forest roads often receive needed maintenance and repair from the timber sale itself, either through recurrent, deferred, and surface replacement deposits or through road maintenance performed by the purchaser of the timber sale. (Counties receive payments from the federal government under H.R. 2389, the Secure Rural Schools and Community Self-Determination Act of 2000. The Act requires that fully half of the special project funds be expended on road maintenance and watershed restoration.) Licensed equipment used by the purchaser of these timber sales is part of the tax-base used to pay for county road needs within the area.

National Forest management is based on the multiple-use principal. No evidence is provided by Mr. Petersen that these activities are mutually exclusive, that an increase in jobs in one activity means that there will be less jobs in another. There may be periods when timber harvest may preclude the use of a specific area during activities, but it does not preclude that area from ever being used again for other activities.

A-3. Mr. Petersen expressed concern over Features Designed to Protect Wildlife Habitat stating that the project area should be fully surveyed for all protected wildlife habitat. He states that the Forest Service should know prior to the start of the project if there is sensitive wildlife habitat in the area instead of relying on plans for protection measures if they are encountered. Where is the guarantee that these areas will be protected or even surveyed for after the project has started?

None of the areas proposed for treatment are within suitable goshawk or flammulated owl habitat based on modeling and the wildlife analysis. Based on this assessment, no formal wildlife surveys for these

species are planned. It is possible that one of these species could occur even though existing habitat conditions do not suggest their presence. If evidence of these species is discovered during sale layout, preparation, or harvest activities then the guidelines disclosed under Features Designed to Protect Wildlife Habitat (EA, page 2-17) will be implemented. These features are carried forward into the timber sale contract so modifications can be made without contractual conflict.

- A-4. The removal of native vegetation will impact native species because it will change fire regimes. Fires not only would have provided a food source, since it is believed black-backs prefer burned snags, but would also have provided conditions for the establishment of seral species cover types that are preferred by the woodpecker. How many snags per acres will be retained for woodpecker habitat and food security? Does this meet the woodpecker’s requirements?**

This project would follow snag retention guidelines recommended under the Northern Region Snag Management Protocol (2000). These guidelines are designed to meet general snag retention needs for woodpeckers. Treatment areas would retain 2-4 of the largest snags on the sites to maintain part of the snag habitat component created by the bark beetles. Smaller snags would also be retained to maintain the 6-12 snags per acre recommended for the habitat types that are being treated. The project will also require that trees bole-scorched during prescribed fire operations will be retained for black-backed woodpecker habitat (EA, page 3-62). Stand replacing wildfires would provide a preferred food source for black-backed woodpeckers over the short term. However, stands would not necessarily become established to seral species under current forest conditions due to the lack of a seral seed source. This project proposes to reforest areas of high beetle mortality with planting of seral pines and larch.

- A-5. Since the goshawk is on the list of Candidate species, which, in the opinion of the U.S. Fish & Wildlife Service may become threatened or endangered, the EA is in violation of FSM 2670.32(5). This provision requires that management standards be established for Federal candidate species when a project may have a significant effect on population numbers or distributions. The IPNF has as yet failed to establish these standards for the northern goshawk; therefore the project cannot legally proceed.**

This project is small in scope. There is no modeled suitable or capable goshawk habitat being affected by the proposed treatment units (EA, page 3-65,66). Since the project does not conclude that there will be a significant effect on populations numbers or distributions, establishment of management standards under FSM 2670.32(5) is not required.

- A-6. Water howellia and Ute ladies’-tresses are listed as threatened for the IPNF. “There are no documented occurrences of these species, although suitable habitat is thought to occur “ (EA) which will hopefully be confirmed when a sensitive species survey is complete and incorporated to the EIS. When and if confirmed, then a BE is required as defined in FSM 2670.5(3).**

The recent Douglas-fir beetle outbreak has not affected suitable habitat for water howellia or Ute's ladies'-tresses. There is no proposed treatment within or adjacent to potentially suitable habitat for water howellia. It was determined that implementation of any alternative would have no effect on water howellia or Ute ladies'-tresses or their habitat (EA, page B-2). Sensitive plant surveys were completed for the Missouri Heli Bug project in August of 2001 in areas of high potential habitat. No Threatened, Endangered or Sensitive plants were found (EA, page B-2). Biological Assessments for T&E species and Biological Evaluations for sensitive species have been completed and are located in the Project Files.

- A-7. Westslope cutthroat trout is listed by the Regional Forester of the U.S. Forest Service Region One as a sensitive species. The State of Idaho considers westslope cutthroat trout to be a “species of special concern”. Unacceptable high increases in water and sediment yields resulting from the**

implementation of the proposed action can only further negatively impact this watershed and its fishery.

Contrary to Mr. Petersen’s statement, the cumulative effects from implementation of either of the action alternatives would not be measurable at the tributary or watershed scale for increases in peak flows or sediment over what would occur under the No-Action Alternative (EA, page 2-21). There would be no change in fish population condition at the scale of a stream segment as a result of either action alternative. Because the actions have minimal effects at the scale of a stream reach, this project would have no incremental effect at the scale of the watershed (EA, page 2-21). The Biological Evaluation for sensitive fish species concluded no effect to westslope cutthroat trout (Project Files).

- A-8. The watershed in the project area is already harmed by historical Forest Management projects such as timber harvests (within the past five years) and associated road building have contributed to cumulative effects that are affecting recovery of fish habitat conditions in these streams. The removal of the forest canopy no matter what the material is will not benefit the watershed and help in restoration and recovery efforts.**

The purpose and need of the Missouri Heli Bug project is not watershed restoration. The project is designed to do vegetative treatments while minimizing any potential effects to the watershed. Recently completed and foreseeable watershed restoration activities are listed in the Water Resources section (EA, page 3-29). There are only limited opportunities for additional watershed restoration work within the Missouri Heli Bug project area (EA, 2-7). Cumulative benefits due to watershed improvements and the reduction of sediment risk from ongoing and reasonably foreseeable activities not associated with this project may be noticeable at the tributary scale and enhance stream conditions and water quality in some localized reaches (EA, page 2-21). Although there would be no cumulative effects from this project at the watershed scale, the overall effects of this project in combination with the past, present and reasonably foreseeable actions would be to maintain the rate at which the Management Indicator Species recover within the analysis area (EA, page 2-22).

- A-9. The stream systems in the project area are already weakened by past Forest Management activities, and the project area has a pre-existing sensitivity to rain on snow events, an increase stream gradation, which can increase stream flow and add sediment to the stream systems. There is no way these effects will be remedied by more forest management practices, salvage, regeneration, and shelterwood prescriptions. How will the removal of these trees help to stabilize stream systems and reduce the risk of “increase in the magnitude and quantity of flow that would occur under all alternatives at individual sites”?**

Again, the purpose and need of the Missouri Heli Bug project is not watershed restoration. The project is designed to do vegetative treatments while minimizing any potential effects to the watershed. The watershed analysis concluded that the cumulative effects from implementation of either of the action alternatives would not be measurable at the tributary or watershed scale for increases in peak flows or sediment over what would occur under the No-Action Alternative (EA, page 2-21).

Mr. Petersen’s quote from the EA refers to all alternatives, including the no action alternative. The sentence is taken out of context from a paragraph in the EA on page 3-38.

- A-10. Cumulatively we believe that your actions have impacted the flow to the Spokane/Rathdrum Aquifer. How will the project improve or degrade recharge to the aquifer?**

The watershed analysis concluded that the cumulative effects from implementation of either of the action alternatives would not be measurable at the tributary or watershed scale for increases in peak

flows or sediment over what would occur under the No-Action Alternative (EA, page 2-21). Therefore this project would not produce any measurable affect to the aquifer.

A-11. How can the Forest Service guarantee that diseases and bug infestation problem will not heighten? The current problem was caused by years of fire suppression, motivated by resource protection.

The current problem was caused by a number of factors, starting with the damage caused by the ice storm of 1996. Since the ecosystem is in a constant state of change, there can be no guarantee that diseases and insect infestations will not increase. However, the bark beetle infestation is on the decline. Much of the timber being harvested is already dead and the beetles have flown. Timely extraction of any harvested green timber (within one year) will prevent the beetles from infesting the material and producing a population that will further attack green trees. Reforestation of root-diseased areas with trees less susceptible to the disease is the best way to ensure a healthy ecosystem in the future.

A-12. The Missouri Heli Bug EA will jeopardize the viability of species that thrive in naturally disturbed forests, intervene in natural disturbance processes that are vital to ecosystem sustainability, and degrade water quality and watershed condition. This analysis on which the Forest has relied is inadequate, flawed and biased in a number of ways, rendering any potential decision arbitrary and capricious.

Our effects analysis does not agree with the conclusions provided by Mr. Petersen, as documented in the Environmental Assessment, the Finding of No Significant Impact and throughout this Decision Notice. Since he does not provide any examples or other foundation for his predictions of what will occur, or for his assertion that our analysis is inadequate, flawed, and biased, it is impossible for us to respond to these particular statements.

A-13. The Forest Service is required by law to manage national forest system lands and programs to maximize social and economic benefits for the American people. As with other projects planned on the National Forests of Idaho and throughout Region 1, the Forest Service has failed to complete an economic analysis of the Missouri Heli Bug EA that provides the public with a full and fair accounting of net economic benefits. Instead, the economic analysis is limited to net cost incurred by the Forest Service and project administrators for county receipts as well as sale preparation and administration costs. The proposed action is a deficient/below-cost sale with a negative PNV of -\$41,785 compared to the no action alternative -\$20,000 and alternative -\$15,498. You are correct in stating that the proposed alternative is not preferred for the economic gain.

Analysis of the economic effects of the national forest logging program is outside the scope of this project. The primary economic focus at the project level is to identify economic implications that are unique for decisions made at this level. The financial analysis provided in Chapter 3 of the EA (pages 3-23 to 3-28) compares the economic considerations of each alternative. The comparison of alternatives (EA, 2-21) discloses the merits and trade-offs of the alternatives, which meets both the letter and the spirit of NEPA requirements in terms of disclosure of the economic effects for the alternatives. County receipts were not projected in the Missouri Heli Bug project since it appears that all the counties in Idaho have opted to have direct payment based on the past high 3 years of timber harvest instead of 25% of the annual timber harvested. The net value of the Selected Alternative is minus (-)\$14,828, Alternative 3 would be minus (-)\$7,737, and the No-Action Alternative would have a net value of minus (-)\$20,000. The figures cited by Mr. Petersen appear to be from the Burnt Cabin Heli Bug project, not the Missouri Heli Bug assessment. The Missouri Heli Bug project proposes vegetative restoration for the area using existing transportation features that are in place. It is a long-

term investment in the vegetative resource using timber revenues to help pay for the costs. The project does not attempt to maximize short-term economic return.

- A-14. The EA and project record should analyze the economic value on existing uses, including recreation, flood control, pest control, carbon sequestering, and many other “ecosystem services”. In addition, the economic analysis fails to consider a wide range of cost that will be incurred by the public through loss of these “ecosystem services” and other externalized costs such as increased flooding, increased risk of death, injury, and property damage from logging operations, and increased fire risk.**

As stated under Methodology in the Finances section (EA, page 3-24) non-commodity values were not included in this analysis because these resources are evaluated under the specific resource section. Title 40, Code of Federal Regulations for NEPA (40 CFR 1502.23) indicates that “For the purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are qualitative considerations.” Environmental effects on resources are documented in individual resource sections. Also, Mr. Petersen’s conclusion that there would be a loss of ecosystem services, such as recreation, flood control, pest control and carbon sequestering as a result of this project being implemented are not supported by scientific data or citations.

- A-15. A non-commercial restoration alternative should have been further analyzed. The contention is that all restoration objectives can be met without conducting a commercial timber sale, a commercial timber sale can only exacerbate current problems, the Forest Service cannot exclude a non-commercial alternative merely because the existing funding structure would make it difficult. Mr. Petersen goes on to say that given the insignificant contribution of wood fiber to America’s consumption requirements from national forest lands, the vast economic contribution of non-timber related jobs and income, and the growing body of scientific knowledge recognizing the ecological and economic advantages of non-commercial restoration, the agency has no excuse for not analyzing a non-commercial, restoration only alternative in more detail. Until such action is taken, this NEPA analysis is considered incomplete.**

This project analyzed three alternatives, including two action alternatives and a No-Action Alternative (EA, Chapter 2). Three other alternatives were considered but dismissed from further consideration, utilizing a road construction option, utilizing only salvage treatments, and a watershed restoration only option. The restoration only alternative was not developed further because it would not allow recovery of the economic value of dead and diseased timber identified as a purpose and need for this project. In response to scoping comments provided by Bryan Bird, Forest Conservation Council, it was discussed that timber stand restoration could possibly be done without the use of commercial logging, but such a project would not be economical, efficient, or effective considering the diverse needs and desires of the public and the current national forest timber resource management direction (EA, A-23). This comment has come up on a previous project (Burnt Cabin Heli Bug DN, Page B-11). In response to that comment we ran some analysis and found the costs to be quite high. Salvaging some of the timber to help pay for the restoration effort appeared to be a sound approach.

Whether timber produced from national forest lands is an insignificant contribution to America’s wood fiber consumption is a political issue and not a resource issue. The growing body of scientific knowledge recognizing the ecological and economic advantages of non-commercial restoration is not supported by Mr. Petersen. Concerns have been expressed by Dr. Russ Graham, Research Scientist, (Notes taken during Sands Creek appeal resolution meeting) of the need to reduce biomass prior to burning operations so that fire intensities do not adversely affect soil horizons.

A-16. The Missouri Heli Bug EA includes commercial harvest, ground-disturbing activities associated with timber harvest and other vegetative manipulation. These activities are likely to jeopardize the viability of species that find optimal habitat in forests with well-developed structures, and forests naturally disturbed by fire, disease and insect pathogens. These include sensitive species and management indicator species. For many of these species the Forest Service has no up-to-date population data describing population numbers, locations, and trends, nor monitoring data on which the agency can rely to determine that the actions proposed in the context of the Missouri Heli Bug EA will maintain numbers and distribution of these species sufficient for insuring long term viability. Because the FS has no such data for most species adversely affected by the proposed management activities, and because what data there is suggests that such species are declining and otherwise at risk, the FS runs afoul of viability and diversity requirements set forth in forest planning regulations 36 CFR 219.19 and 219.26.

The analysis done in the Environmental Assessment does not show adverse effects to TES species as a result of this project. Our specialists concluded no effect to gray wolf, bald eagle, lynx (EA, page A-2), westslope cutthroat trout (EA, page 3-52), and a long list of other sensitive wildlife species (EA, page A-3,A-4). Analysis concluded that the action alternatives may impact individuals but would not likely adversely affect populations for black-backed woodpecker (EA, page 3-63) and fishers (EA, page 3-65). No effect is expected to the northern goshawk (EA, page 3-66). Analysis concluded that there would be no effect to threatened or endangered plants species (EA, page B-8). Individual sensitive plants or habitats may be impacted but would not cause a loss of viability to the population or species was the conclusion for sensitive plants in moist or dry forest types (EA, page B-8/9). These conclusions are supported by the findings in the Biological Assessment and Biological Evaluations for this project (Project Files). Mr. Petersen’s opinion that project activities are likely to jeopardize the viability of species is unfounded.

A-17. What is the existing condition of the soils. Have their been site specific surveys? Please detail the level of soil compaction in each unit for the project by on-site visits and analysis.

Protection of the soils resource is addressed in the section, “Issues Not Discussed in Detail in This Environmental Assessment” in this Appendix, and in much greater detail in the Project Files (Soils). No harvest activities will occur within soil types known to be potassium-limited. Slash treatments will require that limbs and tops be lopped and scattered prior to yarding to minimize loss of nutrients. All proposed harvest units are initial entries and meet Forest Plan Soil Quality Standards before and after treatment. The combined average unit soil disturbance for the proposed harvest activities is 1.14% under Alternative 2 and would be 1.5% under Alternative 3. The highest level in an individual unit is 10% associated with the tractor skidding of Unit 7 under both alternatives. Since the proposed units are initial entries there was no need for on site visits for existing soil compaction analysis.

A-18. One of the objectives in the Missouri Heli Bug Project is the hope (“may”) reduce the spread, fire intensity, and fire severity of wildland fire by a combination of salvage and regeneration treatments. However, numerous studies, including government documents, have proven that logging prescriptions are not effective mechanisms, in fact it increases the risk of wildland ignitions, spread, intensity and severity and will not allow firefighters to contain and control a small fire before it becomes a large one as claimed in the EA. Mr. Petersen then follows with numerous quotes from references to show how logging actually increases fire risks.

Under the Cumulative Effects Common to Both Action Alternatives (EA, page III-22), the EA also recognizes that catastrophic fires must have an ignition source. Treatment of these areas would reduce fire intensity over the long term by reducing fuel loads. This may allow firefighters to contain and control a small fire before it becomes a large one. Reducing fire intensity in even small areas may

improve the chances of firefighters to contain and control a small fire start in conditions that would otherwise lead to a catastrophic fire occurrence. Reducing the overall snag component may also allow for a direct attack by firefighters that could serve to keep a fire start small during conditions that might otherwise lead to a catastrophic fire occurrence (EA, page 3-21). The EA acknowledges that most large stand-replacing fires on the IPNF are wind driven or the result of regional climatic patterns and that once a catastrophic wildfire occurs, higher fuel loadings from beetle-killed trees (no action alternative) or scattered regeneration units with underburning (action alternatives) would have minimal affect on such an event once it occurs (EA, page 3-21).

The EA acknowledges that “in the short term there would be an increase in surface fuel loadings in order to decrease long term fuel loadings. An increased fire hazard and risk of ignition from timber harvest may result. Treatment of created fuels can reduce these risk.” (EA, page 3-19). The EA acknowledges that any type of human activity increases the possibility of ignition and wildfire and refers to requirements placed on the timber sale purchaser to mitigate for those risks (EA, page 3-20).

Similar information and references were provided during the appeal of the Small Sales Record of Decision (2001). The Small Sales project was similar to this project as they both proposed treatment in beetle-affected timber stands. Our fuels specialists concluded that some of the points were valid, that logging, especially green timber, without fuels treatments does increase fire intensity and rate of spread. However, many of the quotes of references were taken out of context or were referring to other ecosystem types not consistent with the stands being proposed for treatment. The fire hazard from pre-commercial thinning of ponderosa pine stands is not disputed but does not relate to this project.

It should also be noted that reducing the fire hazard through timber harvest and a combination of fuels treatment methods is only one part of the proposed action related to the purpose and need. It is not the only objective trying to be accomplished. Therefore it weighs on the decision but was not the only thing to consider in making the decision.

A-19. What kind of treatments will be used to decrease fire risk on created fuel loading buildups?

The EA clearly states what type of fuels treatments are proposed (Chapters 2 and 3). The Fire/Fuels section of Chapter 3 defines these treatments and their effectiveness. Factors such as the amount of harvest, location of treatment areas, economics, existing soil conditions, potential for fire outside of the proposed units and the overall fuel mosaic of the landscape were all factors in determining what type of treatments were proposed.

A-20. The EA admits that this alternative would “greatly increase the risk of wildland fire”

The reference that this alternative would “greatly increase the risk of wildland fire” was not found. Under the No-Action Alternative, the prolonged buildup of fuel may lead to fire more catastrophic and destructive to the site than typically occurred in the native forest (EA, page 2-19). Timber harvest will increase the risk of surface fire over the short-term but will decrease the surface fire risk over the long term (EA, pages 2-19 and 2-20).

A-21. Logging trees is focusing on the wrong forest fuel. Logging removes the least flammable of the forest fuels. Fuel treatment should be focusing on the most flammable of the forest fuels, such as brush, weeds, and the lower branches of the ladder fuel trees. Again several references are cited.

This project is not being proposed to solely deal with fuels reduction issues. It has other objectives as well. Logging of large green trees could be considered as focusing on the wrong forest fuel. However, salvaging dead and dying trees, that are losing their moisture content and that will be adding to the

fuels loading in the near future, while treating fine fuels associated with this salvage does focus on the most flammable of the forest fuels.

A-22. Fire clears the forest floor and adds nutrients to the soil which is necessary for young, succulent foliage, rejuvenated huckleberry bushes, whitebark pine tree seed, and much more. Burned forests create ideal-growing conditions for morel mushrooms, and provide generous revenue to mushroom pickers the spring following a fire. This activity has not been mention in the EA. Why not?

This project proposes to introduce fire onto 36 treatment acres under Alternative 2 and 21 treatment acres under Alternative 3. Though improved opportunities to gather mushrooms may result, it is not a key issue that would influence the decision to proceed with treatment options within this area.

A-23. Is there old growth in the project area, and how will the project meet Forest Plan standards?

Seventy-five acres (8% of the project area) are stands managed as allocated old growth habitat. No harvest would occur within this old growth area. These 75 acres are located within Old Growth Management Unit (OGMU) 22. Allocated old growth comprises 3.8 percent of the timber stands in OGMU 22. The Coeur d’Alene River Ranger District currently manages 60,122 acres as allocated old growth (Forest Plan Monitoring Report 2000, p. 60). This exceeds the IPNFs recommendations for the Coeur d’Alene District allocation of old growth. The Forest as a whole is managing 274,899 acres as allocated old growth. This exceeds the Forest Plan direction of maintaining 10% of the forest as old growth. The District is currently in the process of considering additional stands for allocation to old growth management. None of the units proposed for harvest treatment under this proposal are within allocated old growth or within stands being considered for additional old growth allocation (EA, page 3-14).

A-24. The Forest Service Environmental Policy and Procedures Handbook sets the standard for analysis of cumulative effects. This project should describe its hydrologic relationship to all other projects located in the Coeur d’Alene Basin. Cumulative impacts are analyzed in context only of timber harvest, little attention is provided to other factors such as increased ORV use, increased risk of fire, grazing, and the Doug-Fir Beetle and Iron Honey projects.

A thorough cumulative effects analysis was conducted for this project, as documented in Chapter 3 of the EA. This project did not warrant an in depth discussion of increased ORV use because only about 5% of the proposed treatment would involve tractor skidding that could increase the potential for off-road vehicle use. The project files (Soils-1, page 8) does address why increases in ORV use is not expected. Risks of fire are discussed in relation to historic condition, proposed treatments, logging activities, and cumulatively in the EA (Fire/Fuels, pages 3-15 through 3-23).

Grazing is identified as a reasonably foreseeable activity (page 2-7), addressed in the discussion of cumulative effects to water resources (page 3-37), effects of ongoing and reasonably activities on fisheries (page 3-49), and as an issue not addressed in detail in the Environmental Assessment (page A-7).

The Douglas-fir Beetle Project is discussed in the Purpose and Need (page 1-1), in the Forest Vegetation discussions (page 3-6), the fire/Fuels section (pages 3-17/18, 21-22) including a discussion of effects of ongoing and foreseeable activities related to the Beaver Heli Bug timber sale, which was one of the timber sales generated by the Douglas-fir Beetle decision. References to Douglas-fir Beetle project activities are also included in the Water Resources section (page 3-29, 3-38), under ongoing and reasonably foreseeable activities within the Fisheries section (page 3-49), and the Wildlife section (page 3-61).

The Iron Honey project area is located over 25 air miles away from the Missouri Heli Bug project in the Little North Fork River drainage. This area is outside of logical cumulative effects boundaries for vegetation, wildlife and watershed resource analysis under the Missouri Heli Bug project.

- A-25. The cumulative effects of noxious weeds need a full analysis. Direct control of noxious weeds and management practices designed to prevent their spread or introduction to additional areas has proven to be futile. Weed invasion is not limited along road edges. The potential for noxious weeds to transcend the roadside is increased by motorized use, especially with the new Huckleberry/Spades ATV trail being built this summer. The best way to cope with noxious weed infestation is the preventative method – ending commercial timber sales, ending public lands grazing, not building any new roads and monitoring ATV use into sensitive areas. The EA states that motorized disturbance is likely to increase as the result of a reasonably foreseeable Huckleberry/Spades ATV Trail project.**

Noxious weed treatment is identified in the Environmental Assessment as an ongoing activity (Table 2-1, page 2-5). Surveying, monitoring and treatment of noxious weeds are identified as opportunities that could occur if funding becomes available (page 2-7). Treatment of noxious weeds is identified as an issue not addressed in detail in the Environmental Assessment (page A-6), since such treatment is covered by the Coeur d'Alene River Ranger District Noxious Weeds Environmental Impact Statement and Record of Decision. Only 5% of this project would involve tractor yarding. It is standard practice that all timber sale contracts require the cleaning and inspection of all off-road yarding equipment prior to moving into the Sale Area to reduce the spread of noxious weeds.

The Huckleberry/Spade Mountain ATV trail construction was identified as a reasonably foreseeable recreation project for the Burnt Cabin Heli Bug Environmental Assessment and is not within the cumulative effects analysis area for the Missouri Heli Bug Assessment.

- A-26. With all the past and future actions proposed for the general area, the Forest Service should have done a better job of cumulative effects on habitat for snag-dependent birds and mammals. Firewood collecting has also had effects and would again cumulatively with all the actions planned.”**

Effects to habitat for snag-dependent birds and mammals are addressed in the Environmental Assessment (Comparison of Alternatives, pages 2-22; Wildlife, Affected Environment, pages 3-59 and 3-60; Black-backed Woodpecker, pages 3-61 through 3-63; Pileated Woodpecker, page A-4; and Snags and Down Woody Habitat, page A-5/6).

The effect of firewood collecting on snag habitat has been taken into consideration in the analysis of effects on snags and down woody habitat (pages 3-59 and 3-60), and effects to black-backed woodpeckers (page 3-63).

There are several features and mitigation measures designed to protect wildlife (and particularly snag) habitat under Features Designed to Protect Wildlife Habitat (page 2-17).

Comments received from John H. Miller, John P. Miller, Robert A. Hall, and Bruce Tompkins (private individuals)

- B-1. John H. Miller stated, “I have hunted Missouri Gulch/White Creek since 1961 and am well acquainted with the area. In the 1980’s, this entire area was extensively roaded and logged. The result was miles of new roads and numerous clearcuts. In my opinion, this area does not need anymore logging at this time. Therefore, I favor the #1 alternative, no action with alternative 3 as my second choice.” John P. Miller, Robert Hall, and Bruce Tompkins also expressed concerns over the extensive roading and logging in the past, the effect that activity has had on elk populations, and their support for alternative #1, no action.**

Most of the past entry mentioned was associated with Alder, White, and Scott Creeks, much of which is to the south of the Missouri Heli Bug project area. Considerable activity occurred in that area for long-term timber management needs. Missouri and Rock Gulches were not entered during that management activity. No roading or clearcutting is being proposed under the Missouri Heli Bug project. The limited access into Missouri and Rock Gulches would be maintained with this proposal.

Group and irregular shelterwood harvests would maintain 20-30% of the overstory canopy on site. This should provide a much different landscape character than clearcutting, while still providing the opportunity to establish pines and larch for future forest structure and habitat. This entry would allow the salvage of timber mortality associated with the Douglas-fir beetle and other causal agents and trend the area toward more historical timber stand components. Adding road access to the proposed treatment areas would provide a much more economical return, but this option was not selected so the limited access into the Missouri Gulch area would be maintained.

We anticipate that the disturbance period should be fairly short during harvest operations. Helicopter yarding operations tend to remove volume quickly to be efficient using this high-priced system. The EA acknowledges that there would be a short term loss of security and disturbance during activities, but concluded there would be no change to the existing elk habitat potential for the elk habitat unit during and after sale activities (EA, page 2-22). Alternative 2 is favored at this time because it would treat low-stocking areas as a result of other causal agents such as root disease and blister-rust and not just focus on beetle mortality areas. This would allow for a more efficient operation if the entry is going to be made.

- B-2. John H. Miller also stated, “The 933 road (between the gates) that runs through Missouri/Rock Gulch should be eliminated. This road is not needed to service the BPA power line as there are no towers accessed from this road. The only towers are near the gates. This area is some of the best elk/deer range, yet these animals are constantly being disrupted by human activity. During the hunting season these gates are consistently breached. The road in question is only 3 to 4 miles long, so there would still be plenty of access to the general area.” Bruce Tompkins also brought forward specific comments favoring the removal of the #933 road between the gates. Mr. Hall commented on the need to eliminate roads in the area.**

Road 933 is the only road in the Missouri and Rock Gulch drainages. This gated road has become part of a winter recreational trail and is groomed for snowmobile use every winter (EA, page A-10). The gates are opened during the winter months for this use, then closed during the summer season. Shortly after the BPA power line was established, we closed Road 933 on the Beaver Creek side with an earth barrier. BPA immediately requested that the barrier be removed so they could have efficient access to both tower sites without having to drive a long way around using Roads 1586 or 620. We have attempted to maintain the restricted access using gates since that time. With the location of this portion of Road 933 high in the drainages, it also makes it a low priority for removal in terms of watershed

restoration needs. We gave extra consideration to eliminating this section of roadway, however due to its national recreational winter trail status, the need for full road width for grooming, and BPA's concern over efficient access to the towers, we do not anticipate changing the current restricted access. Other options to install a larger gate or install a double gate system, which has reduced breaches in other areas, will be considered.

Comments received from Mike Mihelich (Kootenai Environmental Alliance)

- C-1. Cumulative Effects:** On page 3-29 of the EA the Beaver Creek watershed is described as a 41.1 square mile watershed, or approximately 26,304 acres. The watershed is classified as Not Properly Functioning (NPF) and the EPA lists the watershed as a 303(d) watershed. The Capitol Hill Planning Area is mentioned in several areas of the EA, including pages 2-7 and 2-9. The Capitol Hill Planning area was described as 18,500 acres in size. The 1986 Decision Notice listed 2,200 acres of regeneration logging, 17 miles of new road construction, 45 MMBF of timber to be harvested of which 1,100 acres were to be logged in the Missouri-Carpenter area, and 1,100 acres in the Capitol Hill area. No information is supplied in the Missouri Heli Bug EA that would confirm the watersheds in the Missouri-Carpenter area are hydrologically recovered after the regeneration logging of 1,100 acres in these watersheds. The cumulative effects analysis in the Missouri Heli Bug EA did not mention or discuss the 1,100 acres of regeneration logging that occurred less than 15 years ago in the Missouri-Carpenter area.

The cumulative effects analysis in the Missouri Heli Bug EA did not provide information regarding the likely cumulative impacts that would occur in the cumulative effects analysis area from the direct and indirect effects of the following past and proposed logging activities; the 1,100 acres of regeneration logging in the Missouri-Carpenter area, the proposed Missouri Bug logging, and the logging associated with the Douglas-fir Beetle EIS, the Small Sales EIS, and the planned EIS for the Beaver Creek area. The cumulative effects analysis for the Missouri-Carpenter area is a significant issue, as defined by NEPA at 40 CFR 1508.27b(7).

Of the 18,500 acres in the Capitol Hill EA planning area, approximately 13,200 fall within the Beaver Creek watershed (based on GIS approximation). Of the 2,200 acres of regeneration treatments selected for implementation under the DN for that EA, 1,849 acres were implemented (Project Files – Water Resources). Approximately 294 of these 1,849 acres were located in Cinnabar and Cedar Creeks outside of the Beaver Creek hydrologic unit. The remaining 1,555 acres of regeneration treatments are within the Beaver Creek hydrologic unit and were analyzed as part of the existing condition in the WATSED analysis for this project. Of the 17 miles of road planned for construction under the Capitol Hill DN, approximately 13 miles were constructed. The many of these constructed roads were high on the slopes above where drainage structures were needed. These roads were also addressed as part of the existing condition for this project.

The Missouri-Carpenter area, as defined in the Capitol Hill Planning EA, includes White, Scott, Missouri, Rock, Carpenter, Hurricane, Cedar, and Cinnabar Creeks. Activities in White and Scott Creeks are part of the existing condition and are included in the WATSED analysis for the Beaver Creek. Cedar and Cinnabar Creeks are outside of the Beaver Creek watershed and are not part of the analysis. Of the 1,100 acres of regeneration treatments scheduled for the Missouri-Carpenter area under the Capitol Hill DN, 875 acres were implemented. Only 581 acres are within the Beaver Creek watershed hydrologic unit and analyzed as part of the existing condition (Project Files, Water/Fish).

The Beaver Creek watershed is listed as 303(d) by the EPA. The pollutant of concern is sediment. A portion of the funds generated by the vegetative treatments associated with the Capitol Hill EA were

used to implement point source sediment reduction activities as discussed in the Water Resources section of Chapter 3 (EA, page 3-29).

Logging associated with the Douglas-fir Beetle EIS (Beaver Heli Bug), the Small Sales EIS, and the EIS planned for Beaver Creek, are identified as ongoing or reasonably foreseeable activities in Chapter 2 (pages 2-5, 2-6) and their cumulative effects are discussed in the Water Resources section of Chapter 3 (pages 3-38, 3-39). Planned future activities such as the Beaver Creek EIS would have to consider all past activities in the watershed, such as the Missouri Heli Bug project, as part of the existing condition during analysis.

C-2. Equivalent Clearcut Area (ECA): The equivalent clearcut area (ECA) for the entire Beaver Creek watershed is given as 9%. The Capitol Hill Planning Unit EA included a watershed management alternative evaluation summary. The ECA for the Carpenter drainage was listed as 24% for the no action alternative and 24% or 28% for the action alternatives. The projected ECA's for the White Creek drainage were between 18% and 21% as a result of logging associated with the action alternatives under that evaluation. The Missouri Heli Bug analysis area is located within these two drainages. The DN should supply accurate data for the actual ECA that exists in the Missouri-Carpenter area.

The watershed analysis for the Missouri Heli Bug project area was analyzed on at least two scales: the local site or tributaries where activities occur and the cumulative effect watershed (EA, Methodology section, page 3-33). The direct and indirect effects to local sites and reaches are discussed on page 3-37. The direct, indirect, and cumulative effects at the watershed scale are discussed on page 3-38.

The Missouri-Carpenter area, as defined in the Capitol Hill EA, includes White Creek, Scott Gulch, Missouri Gulch, Rock Gulch, Carpenter Gulch, Hurricane Gulch, Cedar Creek, and Cinnabar Creek. Hurricane, Cedar, and Cinnabar Creeks flow into the North Fork of the Coeur d'Alene River below Beaver Creek and are therefore not part of the cumulative effects analysis. Carpenter Gulch is identified as a face drainage of the North Fork of the Coeur d'Alene River in the GIS layer. Carpenter Gulch actually flows to the east for over a quarter mile near the North Fork of the Coeur d'Alene and empties into Beaver Creek several hundred feet above the mouth. The GIS layer did not pick up this irregularity and therefore was excluded from the cumulative effects analysis for Beaver Creek. Activities in Carpenter Gulch contribute more to the effects to the North Fork than to Beaver Creek because of its entry point. Inclusion of the small Carpenter Gulch drainage into the Beaver Creek analysis would not substantially change the watershed analysis for the Missouri Heli Bug project since no activities are planned in that drainage.

Activities proposed under the Missouri Heli Bug EA are located in Missouri and Scott Gulches. White Creek is not located within the Missouri Heli Bug project area, therefore no treatments are proposed within White Creek with this project. White Creek is a major tributary within the Beaver Creek watershed. Therefore past activities and current ECA levels in White Creek, including activities associated with the Capitol Hill Planning EA, were included in the cumulative effects watershed analysis and the calculation of the 9% ECA level in Beaver Creek.

C-3. WATSED Model: The analysis on page 3-33 of the EA indicated WATSED does not predict increases in sediment yield associated with in-channel and stream-bank erosion from logging induced increases in peak flows. However, the sediment levels that are the baseline for WATSED come from natural in-channel and stream erosion that was a measured parameter used in preparation of the model. There are no citations from the Region One "PC/96-WATSED-Water & Sediment Yields" manual displayed on page 3-33 that confirm the accuracy of the cited sentences. This concern is also expressed with WATSED not evaluating rain-on-

snow events and the statement, “However, rain-on-snow events are part of the precipitation patterns used in the base calculations for peak flows in WATSED.”

These statements were based on personal communication with the Forest Hydrologist, Rick Patten, who developed the WATSED model. These statements are made to clarify that the base information used to build the model includes in-channel erosion and rain on snow events. There is no utility for this disclosure to be made in the WATSED users manual or contained in references cited in the manual, because these are user guides. Rick Patten, as the developer of the model, has stated that the data he used to develop the model included measured sediment, some of which is from in-channel erosion, and precipitation patterns and amounts that included rain on snow events that occurred during the collection period for this data. The model equates increases in water yields to increases in sediment, because that’s what the data showed. In the same light, the model predicts increases in water yield due to reduction of tree canopy, because the data showed influences of tree canopy on water yield, from snowmelt (such as rain on snow events), interception, infiltration and transpiration. An example would be: If the modeler input a canopy reduction from 100 to 30 percent, the model would calculate this influence over the full range of precipitation that occurred during the data collection, including this 70% reduction, on how measured water yields changed with the measured precipitation patterns. The model does not know the difference between rain on snow, and other precipitation events. It knows that water yields increase with reduction of canopy, for any number of reasons.

- C-4. Watershed/fisheries: There is no indication in the EA if there is long-term flow data for the Creeks in the Missouri-Carpenter area, or long-term flow data for Beaver Creek. Increased peak flows in the Creeks and tributaries within the Missouri-Carpenter cumulative effects analysis area, with associated coarse and fine bedload movement, likely contribute to channel instability problems and the associated degraded fisheries conditions in the Missouri-Carpenter analysis area. Alternatives two and three do not contain mitigation measures that would result in a measurable reduction in peak flows or a measurable reduction in coarse and fine bedload movement.**

The EA analysis is based on best available information. There is no long-term flow data for Beaver Creek or associated tributaries. The Missouri Heli Bug proposal is a small-scale vegetative treatment project. Opportunities for watershed improvement are limited within the project area (EA, page 2-7). The Missouri Heli Bug EA analysis concludes that “the cumulative effects from implementation of either of the action alternatives would not be measurable at the tributary or watershed scale for increases in peak flows or sediment over what would occur under the No-Action Alternative”(EA, page 2-21), therefore no mitigation measures are required for this project. Other recently completed and ongoing watershed restoration projects within the cumulative effects analysis area are disclosed (EA, pages 3-29, 3-43, 3-49).

- C-5. There is no data presented in the EA that indicates there has been a measurable improvement to the degraded fisheries in the Missouri-Carpenter area as a result of the timber sales that resulted from the Capitol Hill Planning Unit EA. The Capitol Hill DN contained the following lanaguage. “Road construction and harvest will not exceed acceptable limits in sediment production thus maintaining the fishery resource above the management threshold.” The Missouri Bug Heli DN should indicate whether watershed and fisheries data has been acquired that indicated the fishery resource in the Missouri-Carpenter analysis area has been maintained above the management.**

No specific measurement data is available. The Missouri Heli Bug EA refers to recently completed and ongoing watershed restoration projects within the Beaver Creek watershed (EA, pages 3-29, 3-43, and 3-49) which lead to the following conclusion: “Although there would be no cumulative effects from this project at the watershed scale, the overall effects of this project in combination with the past,

present and reasonably foreseeable actions would be to maintain the rate at which the Management Indicator Species recover within the analysis area.” (EA, page 3-49)

- C-6. Old growth: The EA on page 3-9 indicated that approximately 23% of the project area, or 215 acres are in the age group 100-150 years. It is also stated on page 3-9 that there are 75 acres of allocated old growth within the project area. If there are any stands within the project area that have trees older than 150 years, the DN should include the stand number(s) with the year of origin for the stand(s).**

The EA contains information regarding forest structure (pages 3-7 through 3-9) and old growth (page 3-14). Additional information is available in the Project Files (Vegetation) including a stand data table that shows year of stand origin and the silviculturist’s determination that none of the older stands in the project area would qualify for old growth allocation minimum criteria. An individual would need to research our TSMRS stand records to determine if there are any stands within the project area that have individual trees older than 150 years. That information was not important to bring forward once that determination was made that no stands would meet the minimum criteria for inclusion into old growth.

- C-7. Vegetation: The EA indicated green trees would be logged with Alternatives 2 and 3. If there are stands proposed for logging that have green trees 75 years or older, these stands should be listed in the DN.**

Trees of 75 years of age would fall within the immature structural class. Seventy-five years of age is not near the category break between mature and immature sawtimber. All stands proposed for logging will have green trees 75 years of age and older that will be harvested. What percentage of the green trees are over 75 years is not known. The EA states, “smaller green trees that are not expected to survive underburning in these stands would be harvested unless retained for wildlife habitat. Generally, healthy western larch, ponderosa pine and Douglas-fir over 16 inches in diameter and healthy white pine and grand fir over 18 inches in diameter would be retained on site.” Tree size and age do not always correspond. Often the smaller trees are the same age as the overstory component of the stand and would likely be the same age as the stand origin date would indicate. Larger unhealthy green trees, such as those fading to root disease and blister rust would also be considered for harvest (EA, page 2-10). These trees are expected to be 75 years of age or older. Individual tree health, not age, was considered important to this decision.

- C-8. Monitoring: The DN should supply information that would list the timber sale(s) associated with the Capitol Hill Planning Unit EA that were monitored for impacts to fisheries and watersheds after each timber sale closed, and after the reforestation activities were completed. The timber sale(s) that include written evaluations of monitoring data should be listed in the DN.**

There is no watershed and fisheries post monitoring information specific to the timber sales implemented under the Capitol Hill Planning Unit EA. Watershed and fisheries monitoring is generally conducted at the forest level and published in annual Forest Plan Monitoring and Evaluation Reports. Surveys at this level are conducted to provide baseline information for monitoring trends. This monitoring is also used to compare predicted versus measured results to validate models such as WATSED. Past monitoring results indicated that WATSED measured responses are within a reasonable range for estimating peak flows and sediment production (Forest Plan Monitoring and Evaluation Report 1999, pages 31-33).

- C-9. Road obliteration: On page 3-48 of the EA it is indicated that 8.0 miles of roads will be removed under ongoing and foreseeable actions not associated with the Missouri Bug project. The amount of Level I and Level II road obliteration work slated for the 8.0 miles is not listed. Given the significant differences between the two, the DN should indicate the road(s) where the decompaction of the inside half of the roadway to a minimum of 30 inches deep would occur. If this information is unknown or unavailable, the DN should describe the unavailable information.**

Based on watershed restoration implementation records, approximately 50% of the road miles were Level I obliteration where culverts were removed stream channel crossings were restored and the roads were waterbarred. The other half was a Level II obliteration where the roadways are returned to original ground contour.

Comments received from Sherman Bamford (on behalf of The Ecology Center, The Lands Council, and the Alliance for the Wild Rockies)

- D-1. We incorporate our previous comments and appeals of the DFB Project and “SS” project, in your possession, as comments on the Missouri Bug EA. We incorporate the comments on this EA by Mike Mihelich and/or KEA, in your possession, into this letter. We also incorporate the Ecology Center’s January 25, 2000 letter to the Forest Supervisor, which the Coeur d’Alene River Ranger District received a copy, as comments on this proposal. Please place a copy of those documents in the Project File as responsive to your request for comments on the Missouri Bug EA.**

Similar comments were received and responded to during scoping of this project. See EA pages A-15 and A-19. Mr. Mihelich’s comments have already been incorporated into this EA.

- D-2. Old growth levels in this project area are already very low (EA, 3-58). The FS should document that no old growth or areas allocated to old growth attainment will be cut in this project, that plan requirements for old growth allocation and protection will be met, that no FS activities will impair the qualities that make old growth unique as a forest succession stage and wildlife/native plant habitat and that appropriate identification, protection and monitoring of old growth is conducted by qualified personnel. The FS should demonstrate that the project will not adversely affect the viability of old growth dependent species.**

The EA contains documentation related to old growth and the meeting of Forest retention standards on page 3-14. Additional information is available in the Project Files (Vegetation) including the silviculturist’s determination that none of the older stands in the project area would qualify for old growth allocation minimum criteria. The wildlife sections of the EA demonstrate that the project will not adversely affect the viability of old growth dependent species (EA, pages 3-54 through 3-56, and A-2 through A-6). This is supported by the BA/BE located in the Project Files.

- D-3. Mr. Bamford goes on to discuss the importance of old forest structure and cites numerous items from Chief Bombeck’s January 8, 2001 speech and the Integrated Scientific Assessment for the Interior Columbia Basin.**

The Ecology Center provided this same information during initial scoping of the Missouri Heli Bug project (EA, page A-16 through A-18). Our response to that information is provided on pages A-19 and A-20, specifically items 4 and 5.

- D-4. Since the project intends to bring the forest closer to historic conditions (EA 3-15 to 17), the NEPA document must adequately describe how the historic range of variability was determined. Proposed treatments to move ecosystems toward historic ranges of variability (HRV's) defined chiefly by vegetative composition often pose far greater threats to biodiversity than do fires and other natural events that might (or might not) be associated with the “undesired changes in forest structure (Frissell and Bayles, 1996; Henjum et al., 1994; Rhodes et al., 1994) Hessberg and Lemkuhl (1999) suggest that prescribed burning alone can be utilized in many cases where managers typically assume mechanical fuel reductions must be used. The concept of historic range of variability suffers from a failure to provide defensible criteria for determining what ecosystem factors' ranges should be measured (Fissell and Bayles, 1996). Without information pertaining to how historic conditions were estimated, it is impossible for decision-makers to make informed decisions as required by NEPA. A failure to disclose methodologies used for estimating the historic range of viability would undermine the scientific integrity of the entire EA. Moreover, since the road network, past logging, loss of old growth, degradation of streams, and other factors are potentially affecting the natural range of variability, the FS needs to address these factors as well.**

The purpose of this project is not driven solely by a desire to move the forest toward more historic conditions, however, it makes use of the opportunities generated by the salvage of this timber to trend in that direction. This project is too small in scope to make a significant shift toward more historic conditions. The EA acknowledges this (EA, page 3-23). Discussions in the forest vegetation and fire/fuels of past conditions are necessary to understand the current environmental conditions and what the desired future condition should be. Historic conditions are based on information from the Coeur d'Alene River Geographic Assessment, USFS, February, 1998. The Geographic Assessment gathered information from old photos, past fire history information, old stand inventories, historical writings from Leiberg and others, and successional model runs to determine what the natural forest ecosystem condition was and what it could be. The EA discusses how man's intervention, be it past harvest activities or suppression of wildfire, has changed the natural forest ecosystem. It also discusses how no action would not return the forest to its natural ecosystem state (EA, pages 3-1 through 3-23).

- D-5. The scoping letter for this project stated, “The proposed activities are outside of the analysis area considered under the Douglas-fir Beetle (DFB) or Small Sales EIS (SS) projects.” This is clearly a disingenuous statement. Although the Missouri Bug project does not fall within the arbitrary “Analysis Area” boundaries drawn for the DFB Project, the Missouri Bug project logging would occur immediately across Beaver Creek...As some of our comments on both the DFB and SS project were in regards to cumulative effects on aquatic resources downstream of immediate logging activities, and given the relative locations of all these projects, the cumulative effects of all must be analyzed together. There are hundreds of acres of past, ongoing, and foreseeable logging operations....in the vicinity of the project area. The FS does not analyze the impacts of those listed. Other activities not listed are not considered. The proposal is more expansion of the CDA River Ranger District's portion of the DFB Project. It seems the IPNF is trying to avoid NEPA's requirement to fully analyze impacts of the combined actions.**

The Ecology Center provided these same comments during initial scoping of the Missouri Heli Bug project (EA, page A-15). Our response to those comments is provide on page A-19, item 1. Past activities are brought forward as part of the existing condition. Ongoing and reasonably foreseeable activities, including the DFB Project and SS Project, are discussed within each resource section in Chapter 3.

- D-6. This proposal also continues the IPNF’s “management by crisis” which, like the DFB and SS projects, is an overblown reaction to an infestation of a native insect species – one that has been periodically infesting the forest without ill-effects for centuries. The present condition of the Forest follows from decades of overcutting and excessive road building to the point that the only “justification” for more logging is to perpetrate a “forest health” concern so an increasingly skeptical public can be temporarily confused into submission.**

The Ecology Center provided these same comments during initial scoping of the Missouri Heli Bug project (EA, page A-15). Our response to those comments is provide on page A-19, item 3.

- D-7. Our observations of many cutting units of the DFB sale reveled that the extensive cutting of healthy trees was the result, far more than stated in the DFB FEIS. We suspect that the proposed project would also result in more high grading of large live and dead trees. Live or dead, standing or fallen, these provide important habitat components of many sensitive, endangered, threatened, and management indicator species, and contribute to development of diverse mature and old growth forests and contribute to habitat connectivity of species depending on old growth. Again, we urge the FS to fully consider cumulative effects.**

The alternative descriptions (EA, pages 2-10 through 2-12) provide information on what would be harvested and what would be retained within the harvest units. Regeneration units have the following description: “The emphasis would be on retention of groups of large healthy overstory trees to maintain visual quality objectives on the sites. Smaller green trees that are not expected to survive underburning in these stands would be harvested unless retained for wildlife habitat. Generally, healthy western larch, ponderosa pine and Douglas-fir over 16 inches in diameter and healthy white pine and grand fir over 18 inches in diameter would be retained on site.” Under features designed to protect wildlife habitat (EA, page 2-17), retention of snag areas outside of proposed harvest units, retention of 2-4 of the largest dead trees per acre within treatment areas, and retention of a down wood component are discussed. These features are included to provide important habitat components for wildlife.

- D-8. The purpose and need for this project (EA 1-1) was so narrowly constructed as to preclude a full range of alternatives (EA 2-9). See Brian Byrd’s scoping letter on this issue.**

Brian Byrd’s scoping letter is located in the EA on pages A-21 and A-22. Our responses to his comments are on page A-23. This project is small in scope and was proposed in response to mortality associated with the Douglas-fir beetle. Three alternatives are considered in detail and three alternatives were considered but dismissed from further analysis (EA, page 2-9). The range of alternatives is adequate considering the size and scope of the project. Landscape level projects, such as the Beaver Creek EIS if undertaken, will likely have a broader purpose and need and will include a wider range of alternatives.

- D-9. How will this project maximize net public benefit? In other words, you should give consideration to, and adequately document, who benefits by these projects and who “pays” for them. We also are concerned that the cost of road building in this case would make the sale economically unfeasible. All costs and benefits should be itemized in the analysis, so the public can see these figures. Net public benefit is determined by numerous inputs and outputs, some of which are quantifiable and others which are more qualitative. Economic analysis can provide a useful basis for evaluation only if the economic evaluation is comprehensive and documents all costs and benefits related to the proposed action. Mr. Bamford goes on to list out direct and induced**

costs, in-place benefits, recreational opportunities, outfitter losses, all costs related to the project, and the market and non-market benefits of intact forests.

The Forest Service is still under direction to manage for multiple uses, including timber commodity production for local and national markets. There is no road construction being considered with this project. Road construction would likely make this project more economical, however it is not being considered for some of the other resource reasons that Mr. Bamford suggests that we consider. As stated under Methodology in the Finances section (EA, page 3-24) Non-commodity values were not included in this analysis because these resources are evaluated under the specific resource section. Title 40, Code of Federal Regulations for NEPA (40 CFR 1502.23) indicates that “For the purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are qualitative considerations.” Environmental effects on resources are documented in individual resource sections.

D-10. The EA does not discuss the effects to the following resources in detail, many which could be affected by the project (by itself or cumulatively). Mr. Bamford goes on to list most the items listed in Appendix A of the EA under Issues Not Discussed in Detail in This EA. Such non-analysis makes the EA deficient. The arguments of the FS are not validated and these arguments do not void FS responsibility to consider issues.

During the course of this analysis, the public and project resource specialists identified other issues that could be relevant to the proposed project. Each issue was considered by the appropriate team member to determine if/how it is related to the proposal and the level of potential impact. As a result, a decision was made either to address the issue in detail in this EA, or not to address the issue in detail. There were three situations in which an issue was not addressed in detail: 1) the issue is beyond the scope of this project; 2) there will be little or no effect to the issue of concern; or 3) the issue has been effectively addressed through specific alternative features and/or mitigation measures (EA, page A-1).

For each of the issues, a brief overview of the issue and the reason for not providing further documentation in the EA is provided (A-2 through A-11). The determination of effects from this project on many of these issues is also supported by findings in the Biological Assessment and Biological Evaluations for TES species (Project Files).

D-11. The watershed in the project area is in bad shape. Why is more logging proposed in this already damaged watershed? How will bull trout, west-slope cutthroat trout and other TES aquatic species be impacted?

Timber stand management is being proposed in response to Douglas-fir beetle mortality and other causal agents (EA, page 1-1). The analysis of this project proposal concluded “there would be no change in fish population condition at the scale of a stream segment as a result of either action alternative. Because the actions have minimal effects at the scale of a stream reach, this project would have no incremental effect at the scale of the watershed” (EA, page 2-21). This conclusion is supported in the Biological Assessment and Biological Evaluation for fish species (Project Files).

D-12. Elk EHU is low in this area (EA-Wildlife). We are concerned that the project could impact this and other habitat components and needs of elk further.

Under the action alternatives, there would be some loss in hiding and thermal cover beyond what the Douglas-fir beetle has done, however cover is not limiting in this area. There would be no new road construction or reconstruction with either alternative. The EA acknowledges that there would be a

short term loss of security and disturbance during activities, but concluded there would be no change to the existing elk habitat potential for the elk habitat unit during and after sale activities (EA, page 2-22).

D-13. How is there no suitable fisher habitat in the project area, but there is “capable” habitat (EA 3-63)? What is the difference? Was all potential suitable fisher habitat considered? And how will capable, potential, or suitable fisher habitat be affected?

The difference between capable and suitable habitat is defined in the EA on page 3-56 with additional information regarding capable habitat contained under Effects Common to All Action Alternatives for fisher on page 3-64. The difference between suitable and capable habitat is generally associated with the current status of the vegetative cover. Terrain and habitat conditions may favor use by fishers but if stand conditions are not appropriate, be it stand age or density, the area would be considered capable of becoming good habitat but not currently suitable. There are no areas within the project area that are currently considered suitable fisher habitat, but there are areas that will become suitable when vegetative conditions become appropriate. The wildlife section (EA, pages 3-63, 3-64) discusses the effect of each alternative on fisher habitat.

D-14. Goshawk numbers (and goshawk habitat) are apparently low in the project area. What additional measures are needed to protect the goshawk.

The project area does not contain any suitable goshawk habitat, and approximately 98 acres of modeled capable goshawk habitat (EA, 3-65). Under the action alternatives, no modeled goshawk suitable or capable habitat would be within treatment areas (EA, 3-65).

The timber sale contract for either action alternative would include the following wording as a mitigation measure: If a goshawk nest is found, included timber may be deleted in an area of approximately 30 acres around the site, as determined by the Forest Service. If the nest is being actively used by a goshawk, the following measures may be taken: No felling, skidding, road construction or other potentially disturbing activities within approximately 1/4 mile of the nest site, as determined by the Forest Service, may occur between March 15 and August 15 (EA, 3-65). This measure is included to protect goshawks in case they are found to be using an area that was not modeled as possible habitat. These measures would be utilized if discovered prior to implementation or during the implementation phase.

D-15. Have the populations, population trends and habitats of all TES and MIS species been considered?

The proposal’s effects on TES and MIS species and habitats, appropriate for this area, have been discussed either in Chapter 3 of the Fisheries or Wildlife sections or in Appendix A of the Environmental Assessment. The analysis for many of these species is also supported in the Biological Assessment and Biological Evaluations located in the Project Files.

D-16. The FS should conduct Soils Analysis according to the R-1 Soils Standards in this project area.

All proposed activities are within the levels recommended in the Forest Plan Guidelines and in the Region 1 Soil Quality Standards (Project Files – Soils, page 7). Additional information regarding soils is available in the EA page A-7 and the Project Files.

D-17. The area within and around the Missouri Bug project proposal has been extensively logged and roaded, contributing to cumulative impacts in Beaver Creek and the North Fork Coeur d’Alene River. We request that you prioritize restoration rather than invest more taxpayer money in another ill-conceived logging project.

The Missouri Heli Bug project considered the effects of past, ongoing, and foreseeable activities in the analysis for each resource. Past activities are brought forward as part of the existing condition for each resource and are included in modeling through the TSMRS and GIS data bases. Ongoing and foreseeable activities are displayed in tables in Chapter 2 and the effects are discussed within the resource sections in Chapter 3. Recently completed and ongoing restoration activities are also discussed in the Opportunity section of Chapter 2 and within the Water Resources and Fisheries sections of Chapter 3.

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Sarah Jerome and Bob Rehnborg
Coeur d'Alene River Ranger District
2502 East Sherman Avenue
Coeur d'Alene, ID 83814-5899

Friday, May 03, 2002

RE: Comments on the Ponderosa Pine Restoration Project and the Missouri Heli Bug Project

Dear Ms. Jerome and Mr. Rehnborg,

The Lands Council, Ecology Center, National Forest Protection Alliance and Forest Conservation Council would like to express our thoughts on the Ponderosa Pine Project as well as the Missouri Heli-Bug Project. Thank you for accepting our comments.

We are concerned with the selective use of ICBEMP Science and the perception that this science tells us what the project area was like. We suggest you read the USGS John Lieberg reports from the 1890's - Ponderosa Pine were a very minor component of the ecosystem anywhere on your District.

The area needs restoration, we would like to see a non-commercial alternative that focused on the damage caused by roads, culverts and logging of old trees.

We also would like to see a restoration Alternative for the Missouri Heli-Bug. Insects are a natural part of the forest, what is the role of insect predators, how will their numbers change if the project goes forward.

We are concerned with the adverse economic effects of the national forest logging program, and the Forest Service's failure to quantify such effects at the project level or for the program as a whole. The logging program increases costs of water purification and filtration, decreases the value of private timberlands, unfairly competes against alternative fiber and building material businesses, increases wildfire risk, increases repair and maintenance costs for highways and public roads, and decreases the number of jobs in recreation, tourism, fisheries, and alternative forest products.

Over all there are shortcomings in the science within these document in such areas as Features Designed to Protect Wildlife Habitat, Conditions in the Coeur d'Alene Watershed, stream flow regime. Our concerns with the Ponderosa and Missouri Heli Bug EA include:

1. Features Designed to Protect Wildlife Habitat:

The project area should be fully surveyed for all protected wildlife habitat. In the EA the Forest Service suggests proposed plans for the possible encounter of wildlife habitat in the project areas. We should know prior to the start of the project if there is sensitive wildlife habitat in the area. Where is the guarantee that these areas will be protected our even surveyed for after the project has started?

The wildlife analysis for the Ponderosa and Missouri Heli Bug proposal considered effects to species with habitat within the analysis area. This included black-backed woodpecker, fisher, Northern goshawk, and elk. These impacts must be considered

Black-backed Woodpecker

The removal of native vegetation, whether the "salvage" in the Heli project, or the thinning of fir in the Ponderosa Pine project will impact native species because it will change fire regimes. Fires not only would have provided a food source, since it is believed black-backs prefer burned snags, but would also would have provided conditions for the establishment of serial species cover types that are preferred by the woodpecker. How many snags per acres will be retained for woodpecker habitat and food security? Does this meet the woodpecker's requirements?

Northern Goshawk

Since the goshawk is on the list of Candidate species, which, in the opinion of the U.S. Fish & Wildlife Service may become threatened or endangered, the EA is in violation of FSM 2670.32(5). This provision requires that management standards be established for Federal candidate species when a project may have a significant effect on population numbers or distributions. The IPNF has as yet failed to establish these standards for the northern goshawk; therefore the project cannot legally proceed.

Water howellia (Howellia aquatilis) and Ute ladies'-tresses (Spiranthes diluvialis).

These two species are listed as threatened for the IPNF. "There are no documented occurrences of these species, although suitable habitat is thought to occur" (EA) which will hopefully be confirmed when a sensitive species survey is complete and incorporated to the EIS. When and if confirmed, then a BE is required as defined in FSM 2670.5(3), "A documented Forest Service review of Forest Service programs or activities in sufficient detail to determine how an action or proposed action may affect any threatened, endangered, proposed, or sensitive species."

Westslope cutthroat trout

Westslope cutthroat trout is listed by the Regional Forester of the U.S. Forest Service (FS) Region One as a sensitive species. The State of Idaho considers westslope cutthroat trout to be a "species of special concern." Unacceptably high increases in water and sediment yields resulting from the implementation of the proposed action can only further negatively impact this watershed and its fishery.

2. Conditions in the Coeur D' Alene Watershed:

The Watershed in the Project area is already harmed by historical Forest Management project such as timber harvests (within the past five years) and associated road building have contributed to cumulative effects that are affecting recovery of fish habitat conditions in these streams. The

removal of the forest canopy no matter what the material is will not benefit the watershed and help to in restoration and recovery efforts. Any further timber extraction will only make a bad problem worse.

Watershed restoration is proposed all the time with no economic return. Part of the purpose and need for this project is vegetative restoration. It is an investment. The Opportunity exists to use the value of the dead and dying timber on site to finance a portion of the vegetative restoration need. Removal of the dead and dying component will also reduce long term fuel loadings and

Increase firefighter safety should a fire occur in this area. Depending on timing of this and other timber sale

projects, the opportunity will likely exist to combine this project with another timber sale with less planned

Vegetative restoration.

3. Stream Flow Regime:

The streams systems in the project area are already weakened by past Forest Management activities, and the project area has a preexisting sensitivity to rain on snow events, an increase stream gradation, which can increase stream flow this will add sediment to the stream systems. There is no way these effects will be remedied by more forest management practices, salvage, regeneration, and shelterwood prescriptions. How will the removal of these trees help to stabilize stream systems and reduce the risk of "increases in the magnitude and quantity of flow that would occur under all alternatives at individual sites?"

Cumulatively we believe that your actions have impacted the flow to the Spokane/Rathdum Aquifer – how will these two project improve or degrade recharge to the aquifer?

How can the Forest Service guarantee that diseases and bug infestation problem will not heighten? The current problem was caused by years of fire suppression, motivated by resource protection.

The Ponderosa and Missouri Heli Bug EA will jeopardize the viability of species that thrive in naturally disturbed forests, intervene in natural disturbance processes that are vital to ecosystem sustainability, and degrade water quality and watershed condition. The analysis on which the Forest has relied is inadequate, flawed and biased in a number of ways, rendering any potential decision arbitrary and capricious.

4. Socioeconomic Benefits

USFS timber sales are the end result of inter-related planning decisions and analyses made at the national, forest, and project level. 36 C.F.R. § 219.4. At the national level, the Forest Service prepares the Renewable Resources Program (RPA), which determines output levels for all national forest resources based upon a comprehensive environmental and economic assessment of present and anticipated demands for and supply of renewable resources from forests in all ownership. At the forest level, the Forest Service has prepared the Nantahala National Forest

Land and Resource Management Plan ("LRMP"), which is an "extension" of the RPA Program and which identifies lands that are suitable for timber sales, the amount of timber to be offered each year, and under what conditions timber sales will be offered. At the project level, the Forest Service makes decisions about the specific configuration of individual timber sales, including Ponderosa and Missouri Heli Bug EA. At each level, the Forest Service must engage in environmental and economic analyses of its decisions as required by the National Environmental Policy Act.

The Forest Service is required by law to manage national forest system lands and programs to maximize social and economic benefits for the American people. As with other projects planned on the National Forests of Idaho and throughout Region 1, the Forest Service has failed to complete an economic analysis of the Ponderosa and Missouri Heli Bug EA that provides the public with a full and fair accounting of net economic benefits. Instead, the economic analysis is limited to net costs incurred by the Forest Service and project administrators for county receipts as well as sale preparation and administration costs. The proposed action is a deficient/below cost sale with a negative has a PNV of -\$41,785 compared to the no action alternative -\$20,000 and alternative -\$15,498. You are correct in stating that the proposed alternative is not preferred for the economic gain.

The EA and project record should analyze the economic value on existing uses, including recreation, flood control, pest control, carbon sequestering, and many other "ecosystem services." In addition, the economic analysis fails to consider a wide range of costs that will be incurred by the public through loss of these "ecosystem services" and other externalized costs such as increased flooding, increased risk of death, injury, and property damage from logging operations, and increased fire risk.¹

A non-commercial restoration alternative for the Ponderosa and Missouri Heli Bug projects should be analyzed. We contend that:

- (1) all restoration objectives can be met without conducting a commercial timber sale;
- (2) a commercial timber sale can only exacerbate current problems, no commercial timber sale will eliminate these problems, and;
- (3) the Forest Service cannot exclude a non-commercial alternative merely because existing funding structure would make it difficult.

Given the insignificant contribution of wood fiber to America's consumption requirements from national forest lands (about 2% in 2000), the vast economic contribution of non-timber related jobs and income, and the growing body of scientific knowledge recognizing the ecological and economic advantages of non-commercial restoration, the agency has no excuse for not analyzing a non-commercial, restoration only alternative in more detail. We request that such an alternative be developed and analyzed in the final EA and that all costs and benefits, both monetary and non-

monetary, of such an alternative be disclosed. Until, such action is taken, this NEPA analysis is considered incomplete.

5. Species Viability

The Ponderosa and Missouri Heli Bug EA includes commercial harvest, ground-disturbing activities associated with timber harvest and other vegetative manipulation. These activities are likely to jeopardize the viability of species that find optimal habitat in forests with well developed structures, and forests naturally disturbed by fire, disease and insect pathogens. These include sensitive species and management indicator species.

For many of these species the Forest Service has no up-to-date population data describing population numbers, locations, and trends, nor monitoring data on which the agency can rely to determine that the actions proposed in the context of Ponderosa and Missouri Heli Bug EA will maintain numbers and distribution of these species sufficient for insuring long term viability. Because the Forest Service has no such data for most species adversely affected by the proposed management activities, and because what data there is suggests that such species are declining and otherwise at risk, the Forest Service runs afoul of viability and diversity requirements set forth in forest planning regulations 36 C.F.R. § 219.19 and § 219.26. "While precise data is not available on the amount of sensitive plant habitat and populations that have been impacted or lost due to past disturbances, it can be surmised that changes have occurred".

For certain species, moderate to low risk activities such as selective harvest, low intensity fire, and road reconstruction are not likely to adversely affect population viability, even though individual plants may be affected. Observations and monitoring information indicate that some activities may have little effect or even a positive effect on species tolerant of low to moderate levels of disturbance, such as deer fern, Idaho strawberry and Constance's bittercress.

6. Soils

What is the existing condition of the soils. Have there been site specific surveys. Please detail the level of soil compaction in each unit for both project— by on-site visits and analysis.

7. Fire

One of the objectives in the Ponderosa and Missouri Heli Bug Project is the hope ("may") reduce the spread, fire intensity, and fire severity of wildland fire by a combination of salvage and regeneration treatments. However, numerous studies, including government documents, have proven that logging prescriptions are not effective mechanisms, in fact it increases the risk of wildland ignitions, spread, intensity and severity and will not allow firefighters to contain and control a small fire before it becomes a large one—as claimed in the EA.

*"Timber harvest, through its effects on forest structure, local microclimate, and fuels accumulation, has increased fire severity more than any other recent human activity."
-Sierra Nevada Ecosystem Project, 1996. Final Report to Congress

*"Logged areas generally showed a strong association with increased rate of spread and flame length, thereby suggesting that tree harvesting could affect the potential fire

behavior within landscapes. In general, rate of spread and flame length were positively correlated with the proportion of area logged in the sample watersheds."

-Historical and Current Forest Landscapes in Eastern Oregon and Washington. Part II: Linking Vegetation Characteristics to Potential Fire Behavior and Related Smoke Production (PNW-GTR-355)

"As a by-product of clear-cutting, thinning, and other tree-removal activities, activity fuels create both short- and long-term fire hazards to ecosystems. The potential rate of spread and intensity of fires associated with recently cut logging residues is high, especially the first year or two as the material decays. High firebehavior hazards associated with the residues can extend, however, for many years depending on the tree. Even though these hazards diminish, their influence on fire behavior can linger for up to 30 years in the dry forest ecosystems of eastern Washington and Oregon."

-Historical and Current Forest Landscapes in Eastern Oregon and Washington. Part II: Linking Vegetation Characteristics to Potential Fire Behavior and Related Smoke Production (PNW-GTR-355)

"It appears significant that many large fires in the western United States have burned almost exclusively in slash. Some of these fires have stopped when they reached uncut timber; none has come to attention that started in green timber and stopped when it reached a slash area."

-G.R. Fahnestock, 1968. "Fire hazard from pre- commercially thinning ponderosa pine." U.S. Forest Service

"Fire severity has generally increased and fire frequency has generally decreased over the last 200 years. The primary causative factors behind fire regime changes are effective fire prevention and suppression strategies, selection and regeneration cutting, domestic livestock grazing, and the introduction of exotic plants."

-Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin (PNW-GTR-382)

"The high rate of human-caused fires has generally been associated with high recreational use in areas of higher road densities."

-An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins-Volume II (PNW-GTR-405)

Timber harvest converts unavailable aerial fuels into available surface fuels. Thus the risk of crown fire may be reduced while the risk of surface fire can be increased by adding fuel to the ground. In the short term there would be an increase in surface fuel loadings in order to decrease long-term fuel loadings. An increased fire hazard and risk of ignition from timber harvest may result. Treatment of created fuels can reduce these risks. The potential for a fire outside of proposed harvest areas, the overall fuel mosaic on the landscape, and future vegetation and fuel succession must be considered when planning fuels treatments.

What kind of treatments will be used to decrease fire risk on created fuel loading buildups?

The EA admits that his alternative would "greatly increase the risk of wildland fires"

Logging trees is focusing on the wrong forest fuel. Logging removes the least flammable of the forest fuels. Fuel treatment should be focusing on the most flammable of the forest fuels, such as brush, weeds, and the lower branches of the ladder fuel trees.

- ◆ "The majority of the material that we need to take out is not commercial timber. It is up to three and four inches in diameter. We can't sell it. Fire suppression and drought are to blame." - Denny Truesdale, USDA Forest Service Fire Specialist (C-SPAN 8-10-00)
- ◆ "Logged areas generally showed a strong association with increased rate of spread and flame length, thereby suggesting that tree harvesting could affect the potential fire behavior within landscapes...In general, rate of spread and flame length were positively correlated with the proportion of area logged in the sample watersheds." (USFS)
- ◆ 62% of the fires in 2000 were in roaded areas on National Forests or outside the National Forests (as of 8/30/00).
- ◆ "Timber harvest, through its effects on forest structure, local microclimate, and fuels accumulation, has increased fire severity more than any other recent human activity."- Sierra Nevada Ecosystem Project, 1996. Final Report to Congress.

Fire clears the forest floor and adds nutrients to the soil to pave the way for young, succulent foliage, rejuvenated huckleberry bushes, whitebark pine tree seed, and much more. Burned forests might be most popular with morel mushroom hunters the spring following a fire. This activity has not been mentioned in the EA. Why not?

8. Old Growth:

Is there old growth in the project area, and how will these two projects meet Forest Plan standards?

9. Cumulative Effects

The Forest Service Environmental Policy and Procedures Handbook sets the standard for analysis of cumulative effects:

"Individual actions when considered alone may not have a significant impact on the quality of the human environment. Groups of actions, when added together, may have collective or cumulative impacts, which are significant. Cumulative effects, which occur, must be considered and analyzed without regard to land ownership boundaries. Consideration must be given to the incremental effects of past, present, and reasonably foreseeable related future actions of the Forest Service, as well as those of other agencies and individuals."

Both projects should describe their hydrologic relationship to all other projects located in the Coeur D'Alene Basin. Cumulative impacts are analyzed in context only of timber harvest, very

little attention is provided to other factors such as increased ORV use, increased risk of fire, grazing, and the Doug-Fir Beetle and Iron Honey Projects.

The cumulative effects of noxious weeds need a full analysis. Direct control of noxious weeds and management practices designed to prevent their spread or introduction to additional areas has proven to be futile. Weed invasion is not limited along road edges. The potential for noxious weeds to transcend the roadside is increased by motorized use, especially with the new The Huckleberry/Spades ATV trail being built this summer.

The best way to coop with noxious weed infestation is the preventative method- ending commercial timber sales, ending public lands grazing, not building any new roads and monitoring ATV use into sensitive areas. The EA states that motorized disturbance is "likely" (this is an understatement) to increase as the result of a reasonably foreseeable Huckleberry/Spades ATV Trail project.

With all the past and future actions proposed for the general area, the Forest Service should have done a better job of cumulative effects on habitat for snag dependent birds and mammals. Firewood collecting has also had effects and would again cumulatively with all the actions planned.

Please address these issues in your environmental analysis. Thank you for your time and consideration.

Sincerely,



Mike Petersen

For the commentors

5/17/02

Re: Missouri Bug Sale

I have hunted Missouri Gulch/Whites Creek since 1961 and am well acquainted with the area. In the 1980's, this entire area was extensively roaded and logged. The result was miles of new roads and numerous clear-cuts. In my opinion, this area does not need anymore logging at this time.

Therefore, I favor the #1 alternative, no action. The #3 alternative is my second choice. In addition, the 933 road (between the gates) that runs through Missouri/Rock Gulch should be eliminated. This road is not needed to service the BPA power line as there are no towers accessed from this road. The only towers are near the gates. This area is some of the best elk/deer range, yet these animals are constantly being disrupted by human activity. During the hunting season these gates are consistently breached. The road in question is only 3 to 4 miles long, so there would still be plenty of access to the general area.

Sincerely,

A handwritten signature in cursive script, appearing to read "John H. Miller".

John H Miller
6317 S. Crestline
Spokane WA 99223
509-448-2727

Coeur d'Alene, Idaho
May 20, 2002

U.S. Forest Service
Coeur d'Alene River Ranger District
2502 E. Sherman Ave.
Coeur d'Alene, Idaho 83814

Attn: Bob Rehnberg

Re: Missouri Bug Sale

I have hunted this area for forty five (45) years and have a good understanding of the area.

The area in question has already been heavily eroded and logged. To allow further logging at this time, seems impractical.

The elk population was severely impacted by the previous roads and logging and their population has still not recovered.

Therefore, I support the #1 alternative which is no action.

Sincerely,

John P. Miller
JOHN P. MILLER
1908 N. 7th ST.
COEUR D'ALENE, ID. 83814
TEL. 208 664-3909

5-21-02

Re: Missouri Bug Sale

There has already been too much logging and road building in this entire area. Therefore, I favor the #1 alternative (no action)

Also, more roads need to be eliminated in that area. Missouri and Rock Gulch are some of the best elk/deer areas but there are too many roads.

Thank you,

Robert A. Hall
1519 E. Courtland
Spokane, WA. 99207
509-489-8103

USDA Forest Service
Coeur d' Alene River Ranger District
2502 East Sherman Ave.
Coeur d' Alene, ID 83814-5899

May 20, 2002

Attention: Joseph P. Stringer, District Ranger

Cc: Bob Rehnborg/ Dan Frigard – Project Team Leaders

Dear Mr. Stringer,

I am writing in response to the Missouri Heli Bug Environmental Assessment. As an avid hunter, hiker and fisherman for the past 23 years in the area under consideration, my thoughts expressed below are from personal experience.

Several roads service this area. The roads (numbers 933 and 1586) were constructed years back to provide access to the main power lines coming across from Montana and also provided "clear-cut" logging opportunities.

From the top where the roads converge/diverge above Scott Gulch, a short, dead-end spur road goes up to provide access to one of the power poles. I feel this road is necessary for maintenance of the pole and lines, but it should be gated.

Where it meets the 1586 road, 933 turns and goes above the Missouri Gulch area and crosses the main ridge into the Rock Gulch drainage area. It goes approximately 3.5 miles and connects to another road providing access to another power pole. That power pole is more easily accessed from that backside, making the 3.5-mile stretch above Missouri and Rock Gulches redundant and unnecessary.

Years back when this road was constructed, it went through some of the most pristine, quality elk habitat in the Panhandle National Forest. The effect, as expected, was a decrease in elk populations in the area and a broader dispersal of those elk remaining. The elk populations have not recovered any appreciable amount. Closure of this road has been ineffective since the gates at either end do not prevent those lacking certain ethics from cutting the locks and traversing the area at their leisure.

This ties in closely with the proposed Missouri Heli Bug logging. The logging would further disrupt the environment and habitat to which the elk are already sensitive. Although no further road construction is being proposed, this combined impact of current road access and logging should be further explored.

Of the three alternatives listed in the assessment, **Alternative 1, No Action** seems to be the most acceptable. The economic advantage of logging this area does not seem to outweigh the environmental impact. If the road described above could be thoroughly and completely closed (barricaded, "ripped", etc.) for at least a year or two, this would give a better indication of the effect of diminished access on the elk populations.

Respectfully,



Bruce Tompkins
805 East Hastings
Coeur d' Alene, ID 83814
208-667-3235 (h)

email: bruce_tompkins@hollister-stier.com



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MAY 23 2002

COEUR RIVER R.D.

Kootenai Environmental Alliance

P.O. Box 1598 Coeur d'Alene, ID 83816-1598

Joseph P. Stringer, District Ranger
Coeur d'Alene River Ranger District
Fernan Office
2502 East Sherman Avenue
Coeur d'Alene, ID 83814

May 22, 2002

Dear Mr. Stringer:

The following comments concern the Missouri Heli Bug EA.

A. Cumulative effects:

On page 3-29 of the EA the Beaver Creek watershed is described as a 41.1 square mile watershed, or approximately 26,304 acres. The watershed is classified as Not Properly Functioning (NPF) and the EPA lists the watershed as a 303(d) watershed.

The Capitol Hill Planning Area is mentioned in several areas of the EA, including pages 2-7 and 2-9. The Planning Area was described in the Capitol Hill Planning Unit EA, page 1, as being approximately 18,500 acres in size. The 1986 IPNF Decision Notice and FONSI for the Capitol Hill Planning Unit listed 2,200 acres of regeneration logging that was to take place in the Planning Area, with 17 miles of new road construction. Approximately 45 MMBF was to be logged from the 2,200 acres, of which 1,100 acres were to be logged in the Missouri-Carpenter area, and 1,100 acres logged in the Capitol Hill area. The eight timber sales associated with the Capitol Hill EA were; Alder Kid, Capitol Hill, Cinnebar Cedar, Cinnebar Clearance, Dudley, Scott Gulch, Lower White, and Upper White.

The 2,200 acres of regeneration logging apparently resulted in a majority of the units being clearcut. It is likely there are no clearcut units older than 15 years in the 18,500-acre Capitol Hill Planning Area. The reforestation of the clearcut units in the Missouri-Carpenter area would have resulted in stands of young trees that were planted after 1990. No information is supplied in the Missouri Heli Bug EA that would confirm the watersheds in the Missouri-Carpenter area are hydrologically recovered after the regeneration logging of 1,100 acres in these watersheds.

The cumulative effects analysis in the Missouri Heli Bug EA did not mention or discuss the 1,100 acres of regeneration logging that occurred less than 15 years ago in the Missouri-Carpenter area.

NEPA at 40 CFR 1508.7 states regarding cumulative impact "Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impact can result from individually minor but collectively significant actions taking place over a period of time."

NEPA at 40 CFR 1508.8 includes (a) direct effects and (b) indirect effects. 1508.8(b) "Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable".

The cumulative effects analysis in the Missouri Heli Bug EA did not provide information regarding the likely cumulative impacts that would occur in the cumulative effects analysis area from the direct effects and indirect effects of the following past and proposed logging activities; the 1,100 acres of regeneration logging in the Missouri-Carpenter area, the proposed Missouri Bug logging, and the logging associated with the Douglas-fir Beetle EIS and Small Sales EIS. The planned EIS for the Beaver Creek area indicates there would likely be significant logging proposed in cumulative effects analysis area as part of proposed vegetation activities in the Beaver Creek area.

The cumulative effects analysis for the Missouri-Carpenter area is a significant issue, as defined by NEPA at 40 CFR 1508.27b(7). "Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts."

B. Equivalent Clearcut Area (ECA):

The equivalent clearcut area (ECA) for the entire Beaver Creek watershed is given as 9%, pages 3-30 and 3-31 of the Missouri Heli Bug EA. The Capitol Hill Planning Unit EA included a watershed management alternative evaluation summary, dated 1/13/86. The ECA for the Carpenter drainage was listed as 24% for the no action alternative. The evaluation summary indicated that logging in the drainage from the action alternatives would result in an ECA of either 24% or 28%.

The evaluation summary indicated the White drainage would have an ECA between 18% and 21% as a result of the logging associated with the action alternatives. The Missouri Heli Bug analysis area is located within these two drainages. Logging associated with the Small Sales EIS will take place in the Alder and White Creek drainages, EA at page 2-5.

The DN should supply accurate data for the actual ECA that exists in the Missouri-Carpenter area.

C. WATSED Model:

The analysis on page 3-33 of the EA indicated WATSED does not predict increases in sediment yield associated with in-channel and stream-bank erosion from logging induced increases in peak flows. Also on page 3-33 there is the following sentence regarding the model and in-channel and stream-bank erosion. "However, the sediment levels that are the baseline for WATSED come from natural in-channel and stream erosion that was a measured parameter used in preparation of the model."

There are no citations from the Region One "PC/96-WATSED-Water & Sediment Yields" manual displayed on page 3-33 that confirm the accuracy of the cited sentence. Pages 7 through 11 of the WATSED manual contain a discussion titled "Processes modeled in WATSED". The discussions involve Water Yields, Disturbed Areas, Vegetative/Hydrologic Recovery, Water Yield Increase, and Erosion. There does not appear to be information on pages 7 through 11 that specifically mentions sediment, natural in-channel sediment levels, stream erosion, as they relate to a measured parameter used in preparation of WATSED.

NEPA at 40 CFR 1500.1(b) states "NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA."

The DN must supply the page number(s) from PC/96-WATSED that confirm the accuracy of the statement cited from page 3-33 of the EA. If the information does not exist in PC/96-WATSED, but is contained in the Forest Service Northern Region document cited on page PC-3 of PC/96-WATSED, "Forest Hydrology, Hydrologic Effects of Vegetation Manipulation, Part II, Haupt, N.F., et. al, 1976", the page(s) from this document must be cited in the DN.

The EA on page 3-34 includes a rain-on-snow analysis with the following sentence concerning WATSED. "However, rain-on-snow events are part of the precipitation patterns used in the base calculations for peak flows in WATSED."

The DN must supply the page number(s) from PC/96- WATSED that describe various components that are used as part of base calculations for peak flows and rain-on-snow events that were used to arrive at the conclusions that are described in the cited sentence from page 3-34.

D. Watershed/fisheries:

The EA on page 3-40, describing existing conditions, included the following sentence concerning Beaver Creek. "Beaver Creek is very unstable and highly erosive system, and contributes visible quantities of sediment to the North Fork of the Coeur d'Alene during high flows." On page 3-41 of the EA the poor fish habitat in Alder and White Creeks is described, and information indicates that similar degraded conditions exist in other tributaries in the drainage. The NPF status of the watershed and the degraded fisheries conditions in the watershed apparently includes the Missouri-Carpenter analysis area. There is no indication in the EA there is long-term flow data for the Creeks in the Missouri-Carpenter area, or long-term flow data for Beaver Creek. Increased peak flows in the Creeks and tributaries within the Missouri-Carpenter cumulative effects analysis area, with associated coarse and fine bedload movement, likely contribute to channel instability problems and the associated degraded fisheries conditions in the Missouri-Carpenter analysis area. Alternatives two and three do not contain mitigation measures that would result in a measurable reduction in peak flows or a measurable reduction in coarse and fine bedload movement.

There is no data presented in the EA that indicates there has been a measurable improvement to the degraded fisheries in the Missouri-Carpenter area as a result of the timber sales that resulted from the Capitol Hill Planning Unit EA. Page two of the June 7, 1986 IPNF DN and FONSI of the Capitol Hill Planning Unit under c. Fisheries, contained the following language. "Road construction and harvest will not exceed acceptable limits in sediment product thus maintaining the fishery resource above the management threshold".

The Missouri Bug Heli DN should indicate whether watershed and fisheries data has been acquired that indicated the fishery resource in the Missouri-Carpenter analysis area has been maintained above the management threshold.

E. Old growth:

The EA on page 3-9 indicated that approximately 23% of the project area, or 215 acres, are in the age group 100-150 acres. It is also stated on page 3-9 that there are 75 acres of allocated old growth within the project area. If there are any stands within the project area that have trees older than 150 years, the DN should include the stands number(s) with the year of origin for the stand(s).

F. Vegetation:

The EA indicated green trees would be logged with Alternatives 2 and 3. If there are stands proposed for logging that have green trees 75 years or older, these stands should be listed in the DN.

G. Monitoring:

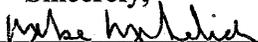
The DN should supply information that would list the timber sale(s) associated with the Capitol Hill Planning Unit EA that were Monitored for impacts to fisheries and watersheds after each timber sale closed, and after the reforestation activities were completed. The timber sale(s) that include written Evaluations of Monitoring data should be listed in the DN.

H. Road obliteration:

On page 3-48 of the EA it is indicated that 8.0 miles of roads will be removed under ongoing and foreseeable actions not associated with the Missouri Bug project. The amount of Level I and Level II road obliteration work slated for the 8.0 miles is not listed on page 3-48. Given the significant differences between Level I and Level II road work, the DN should indicate the road(s) where the decompaction of the inside half of the roadway to a minimum of 30 inches deep would occur. If this information is unknown or unavailable, the DN should describe the unavailable information.

We wish to receive a copy of the DN when it is released.

Sincerely,



Mike Mihelich

Forest Watch Coordinator



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IDAHO FISH & GAME

PANHANDLE REGION
2750 Kathleen Avenue
Coeur d'Alene, Idaho 83815

Dirk Kempthorne/Governor
Steven M. Huffaker/Director

May 22, 2002

Mr. Joseph Stringer, District Ranger
Cd'A National Forest-Fernan Ranger Station
US Forest Service
2502 E Sherman Avenue
Coeur d'Alene, ID 83814

Dear Mr. Stringer:

RE: MISSOURI HELI BUG ENVIRONMENTAL ASSESSMENT

IDFG has reviewed the Missouri Heli Bug Environmental Assessment (EA). The Heli Bug timber harvest treats a total of up to 55 acres, divided among 9 units. Of the 55 acres, 19 acres would be helicopter logged. No new roads or road reconstruction is proposed. The harvest prescription is primarily directed at removal of beetle killed or damaged timber; some healthy green timber would also be harvested in proximity to beetle-damaged timber.

We do not expect significant impacts to wildlife from the proposed harvest. The dead and dying trees that will be harvested in Heli Bug units would have benefits to wildlife as snags. However, the prescription calls for retention of 2-4 of the largest snags per acre, and a total density of 6-12 snags/acre retained per acre on the treatment sites. The proposal also includes provisions to leave large (>12") dead downed material for habitat and microsite maintenance.

Similarly, we do not anticipate that the proposed action will have significant impacts on fisheries or water quality. Most of the salvage units are well removed from streams. Three proposed units will maintain a 300-foot buffer between the drainage and salvage units in Scott Gulch and a 75 foot buffer will be maintained along an intermittent stream channel in Unit 3. No new roads or road reconstruction are planned and no instream work is proposed within this project that would impact stream hydrology or water quality.

Thank you for the opportunity to comment.

Sincerely,


Greg Tourtlotte
Regional Supervisor

GIT:RH:DL:kh

C: Tracey Trent, NRPB Boise
B. Helmich, IDFG, Cd'A
D. Leptich, IDFG, Cd'A

File: USFS missouri heli bug ea

Keeping Idaho's Wildlife Heritage

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MAY 28 2002

COEUR D'ALENE RIVER R.D.

The Ecology Center, Inc.

801 Sherwood Street, Suite B

Missoula, MT 59802

(406) 728-5733

(406) 728-9432 fax

ecocenter@wildrockies.org

May 23, 2002

Joseph Stringer, District Ranger
Coeur d'Alene River Ranger District
2502 East Sherman Avenue
Coeur d'Alene, Idaho 83814

Ranger Stringer:

The following are comments on the Missouri Heli-Bug EA on behalf of the Ecology Center, the Lands Council, and Alliance for the Wild Rockies.

We incorporate our previous comments and appeals of the DFB Project and "SS" project, in your possession, as comments on the Missouri Bug EA. We incorporate the comments on this EA by Mike Mihelich and/or KEA, in your possession, into this letter. We also incorporate the Ecology Center's January 25, 2000 letter to the Forest Supervisor, which the Coeur d'Alene River District Ranger received a copy, as comments on this proposal. Please place a copy of those documents in the Project File as responsive to your request for comments on the Missouri Bug EA.

Old growth levels in this project area are already very low (EA 3-58). The FS should document that no old growth or areas allocated to old growth attainment will be cut in this project, that plan requirements for old growth allocation and protection will be met in this project and in the IPNF, that no FS activities will impair the qualities that make old growth unique as a forest succession stage and wildlife/native plant habitat and that appropriate identification, protection and monitoring of old growth is conducted by qualified personnel. The FS should demonstrate that the project will not adversely affect the viability of old growth dependent species.

The extreme importance of old growth forests can be understood by its conceptualization as representative of the biological diversity in largely unmanaged, native forests. In his January 8, 2001 speech, Chief Dombek provided guidance for the retention of remnant old growth:

In the not-so-distant past, old trees were viewed as "overmature" or "decadent" and targeted for cutting because of their high economic values. Today, national forests contain our last remaining sizable blocks of old-growth forest—a remnant of America's original landscape. In the future, we will celebrate the fact that national forests serve as a reservoir for our last remaining old growth forests and their associated ecological and social values.

In the future, the Forest Service will manage old-growth forests specifically to maintain and enhance old-growth values and characteristics. We will develop manual direction that directs individual forests to:

- Inventory and map remaining old-growth forests;
- Protect, sustain and enhance existing old-growth forests as an element of ecosystem diversity;
- Plan for old-growth within a landscape context, extending beyond forest boundaries;
- Determine the extent, pattern and character of old-growth in the past—prior to European contact and, potentially, at the time the area entered the National Forest System; and
- Project forward in time the amount, location and patterns of old-growth envisioned under alternative management options.

The *Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin and Portions of the Klamath and Great Basins* (hereafter, *Scientific Assessment*) recognizes the importance of maintaining large, old trees and the loss of big trees in Columbia Basin from logging. From the *Scientific Assessment*:

There has been a 27 percent decline in multi-layer and 60 percent decline in single-layer old-forest structures, predominantly in forest types used commercially. (P. 181.)

Throughout most forested Ecological Reporting Areas (ERUs), native herblands, shrublands, and old multi-layered and single-layered forests have declined substantially in area and connectivity since the Basin was first settled by European-Americans. (P. 60.)

Forest composition and structures have largely become more homogeneous. At the same time that late-seral structures have been declining, early-seral structures have also been declining. These structures have been replaced to a substantial degree with mid-seral structures, resulting in homogeneous forest structures. Although early-seral forests of shade-intolerant species have been fragmented, late-seral shade-tolerant forests have grown more contiguous. Consequently, many forest landscapes are now more homogeneous. (P. ?)

Where harvest has removed the long-interval, late-seral, multiple-layer forests, ecosystem management would actively promote restoration for rapid growth of similar structures. Wildlife species associated with these late-seral forests are cavity excavators and those with large home ranges. (P. 169.)

Removal of these trees (residual large live trees) resulted in conversion of the seed source from shade-intolerant species to shade-tolerant fire-, insect-, and disease-susceptible species, as well as losing the diverse structure. Harvest of the large live or dead residual trees from these types results in the loss of important habitats as well as components in long-term nutrient cycles. Management practices can promote the maintenance of these large residual trees where they exist and where they have been harvested or otherwise lost, management can focus on rapid growth of selected young trees with similar characteristics. (P. ?)

We found that salvage activities could contribute to the achievement of long-term ecological integrity by emphasizing prevention of insect and disease outbreaks rather than focusing on the removal of large recently dead trees. (P. 16.)

(S)alvage emphasizes the extraction of specified volumes of dead and green trees at risk of dying. As such, harvest will emphasize larger trees, both green and recent dead, of desirable species ... Our findings suggest that this type of harvesting is not compatible with contemporary ecosystem-based management. (P. 178.)

Emerging Science Issues: We had not anticipated the data indicating the extensive loss of large trees in the landscapes over much of the Basin. The harvest legacy has been more extensive than we thought. (P. 180.)

Management outside the reserve boundaries includes an emphasis on conserving remaining old forest stands and roadless areas larger than 1000 acres (405 ha). (P. 140.)

The *Scientific Assessment* makes it clear that the proposed removal of large trees is out of step with the latest scientific thinking regarding the maintenance of old growth and addressing the rarity of large, old trees on the landscape. The landscape in and around the proposal area has been extensively logged and roaded, leading to the simplification of what was a very diverse forest ecosystem. NEPA at 40 CFR § 1502.24 states: "Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental

impact statements.” And at 40 CFR § 1500.1(b) (E)nvironmental information ... must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.” Since the project intends to bring the forest closer to historic conditions (EA 3-15 to 17), the NEPA document must adequately describe how the historic range of variability was determined. Proposed treatments to move ecosystems toward historic ranges of variability (HRVs) defined chiefly by vegetative composition often pose far greater threats to biodiversity than do fires and other natural events that might (or might not) be associated with the “undesired” changes in forest structure (Frissell and Bayles, 1996; Henjum et al. 1994; Rhodes et al. 1994). Hessberg and Lemkuhl (1999) suggest that prescribed burning alone can be utilized in many cases where managers typically assume mechanical fuel reductions must be used. The concept of historic-range of variability (HRV) suffers from a failure to provide defensible criteria for determining what ecosystem factors’ ranges should be measured (Frissell and Bayles, 1996).

Without information pertaining to how historic conditions were estimated, it is impossible for decision-makers to make informed decisions as required by NEPA. A failure to disclose methodologies used for estimating the historic range of viability would undermine the scientific integrity of the entire environmental analysis.

Moreover, since the road network, past logging, loss of old growth, degradation of streams, and other factors are potentially affecting the natural range of variability, the FS needs to address these factors as well.

The scoping letter for this project stated, “The proposed activities are outside of the analysis area considered under the Douglas-fir Beetle or Small Sales EIS projects.” This is clearly a disingenuous statement. Although the Missouri Bug project does not fall within the arbitrary “Analysis Area” boundaries drawn for the Douglas-fir Beetle (DFB) Project, the Missouri Bug project logging would occur immediately across Beaver Creek from areas that were designated for extensive logging in the “Hart Analysis Area” (DFB ROD, CDA Map 3 Area, Selected Alternative). As some of our comments on both the DFB and Small Sales (SS) project were in regards to cumulative effects on aquatic resources downstream of immediate logging activities, and given the relative locations of all these projects, the cumulative effects of all must be analyzed together. There are hundreds of acres of past, ongoing and foreseeable logging operations (and other kinds of resource extraction and ground disturbing activities) in the vicinity of the project area (EA 2-5 to 7). The FS does not analyze the impacts of those listed; other activities not listed are not considered.

The proposal is more expansion of the Coeur d’Alene River Ranger District’s portion of the Douglas-fir Beetle (DBF) project. It seems the IPNF is trying to avoid NEPA’s requirement to fully analyze impacts of the combined actions.

This proposal also continues the IPNF’s “management by crisis” which, like the DFB and SS projects, is an overblown reaction to an infestation of a native insect species—one that has been periodically infesting the forest without ill-effects for centuries. The present condition of the Forest follows from decades of overcutting and excessive road building to the point that the only “justification” for more logging is to perpetrate a “forest health” concern so an increasingly skeptical public can be temporarily confused into submission.

Our observations of many cutting units of the DFB sale revealed that the extensive cutting of healthy trees was the result, far more than stated in the DFB FEIS. We suspect that the proposed project would also result in more highgrading of large live and dead trees. Live or dead, standing or fallen, these provide important habitat components of many sensitive, endangered, threatened, and management indicator species, and contribute to development of diverse mature and old growth forests and contribute to habitat connectivity of species depending on old growth. Again, we urge the FS to fully consider cumulative effects.

The purpose and need for this project (EA 1-1) was so narrowly constructed as to preclude a full range of alternatives (EA 2-9). See Brian Byrd’s scoping letter on this issue.

How will this project maximize net public benefit? In other words, you should give consideration to, and adequately document, who benefits by these projects and who “pays” for them. We also are concerned that the cost

of road building in this case would make the sale economically unfeasible. All costs and benefits should be itemized in the analysis, so the public can see these figures.

Net public benefit is determined by numerous inputs and outputs, some of which are quantifiable and others which are more qualitative. Economic analysis can provide a useful basis for evaluation only if the economic evaluation is comprehensive and documents all costs and benefits related to the proposed action. We would like the analysis to:

- (1) Insure that the economic analyses are meaningful, by including in the analyses both direct and induced costs;
- (2) Adequately assess all current, in-place benefits;
- (3) Include impacts to hunter opportunity and other forms of recreation (how will the proposed project impact the quality of backcountry hiking, for example?);
- (4) Quantify all induced losses to outfitters and guides who may currently derive economic benefits from the areas;
- (5) Consider all costs related to the projects, including the costs of preparing the analyses, all specialist support and consultation, costs associated with travel management and administration, road construction and engineering expenses, weed control, reforestation and planting, stand exams, timber stand improvement, and all other costs.

The FS should have analyzed the market and non-market benefits of intact forests, including:

- the role of such forests in regulating the flow of water in the affected watersheds,
- the role of such forests in mitigating flash floods and other catastrophic precipitation events;
- the role of such forests in purifying water for downstream users;
- the role of such forests in maintaining long term forest productivity.
- the role of such forests in providing a source of native organisms vital to regeneration and forest development in surrounding areas.
- the role of such forests in mitigating pests.

The EA does not discuss the effects to following resources in detail, many which could be affected by the project (by itself or cumulatively): wolves, lynx, flammulated owl, boreal toad, Coeur d'Alene salamander, northern leopard frog, marten, pileated woodpecker, land birds (including NTMBs), snags and woody debris, TES plants, noxious weeds, soils, cultural resources, roads analysis process, and road network (EA Appx A). Such non-analysis makes the EA deficient. The arguments of the FS (for example, use of proxy species, lack of habitat) are not validated and these arguments do not void FS responsibility to consider issues.

The watershed in the project area is in bad shape (See EA 3-29, 3-30, 3-40 and 3-48). Why is more logging proposed in this already damaged watershed? How will bull trout, west-slope cutthroat trout and other TES aquatic species be impacted?

Elk EHU is low in this area (EA-Wildlife). We are concerned that the project could impact this and other habitat components and needs of elk further.

How is there no suitable fisher habitat in the project area, but there is "capable" habitat (EA 3-63)? What is the difference? Was all potential suitable fisher habitat considered? And how will capable, potential or suitable fisher habitat be affected?

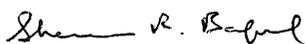
Goshawk numbers (and goshawk habitat) are apparently low in the project area. What additional measures are needed to protect the goshawk.

Have the populations, population trends and habitats of all TES and MIS species been considered?

The FS should conduct Soils Analysis according to the R-1 Soils Standards in this project area.

The area within and around the Missouri Bug project proposal has been extensively logged and roaded, contributing to cumulative impacts in Beaver Creek and the North Fork Coeur d'Alene River. We request that you prioritize restoration rather than invest more taxpayer money in another ill-conceived logging project.

Thank you for considering these comments. Please keep each group on the list to receive all future communications regarding this proposal.



Sincerely yours,

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