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Coeur d'Alene River Ranger District

Iron Honey Resource Area

Record Of Decision

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IRON HONEY RESOURCE AREA

Record Of Decision

Kootenai & Shoshone Counties, Idaho

I. Brief Description of My Decision

This decision is the culmination of an effort by the Idaho Panhandle National Forests to address ecosystem restoration needs in the Little North Fork Coeur d'Alene River watershed. This Record of Decision documents my selection of management activities that will occur in the Iron Honey Resource Area of the Coeur d'Alene River Ranger District. The project area consists of approximately 21,600 acres of National Forest System lands located at the headwaters of the Little North Fork of the Coeur d'Alene River. The Forest Service administers all but 193 acres of land within the Resource Area. There is an 82-acre parcel of private land at the mouth of Iron Creek, with 111 acres of patented mining claims in the Prospector Creek drainage east of Honey Mountain.

The scope of this environmental impact statement was determined through public scoping and agency analysis, in accordance with the requirements of 40 CFR 1508.25. The scope of the actions includes only those site-specific, on-the-ground activities addressed by the FEIS and this decision document. The FEIS is not a general management plan for the Upper Little North Fork Coeur d'Alene River Basin.

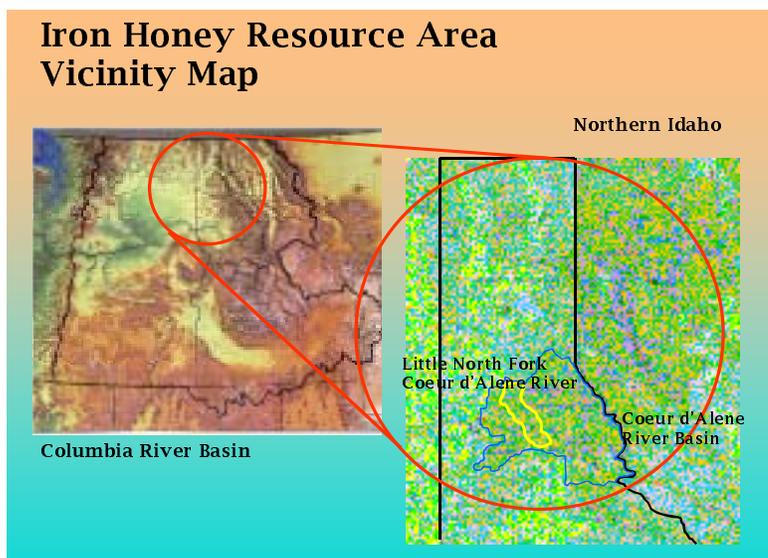


Figure 1. Iron Honey Resource Area Vicinity Map.

I have chosen to implement **Alternative 8**, described in the Final Environmental Impact Statement (FEIS), to achieve the necessary vegetative and watershed restoration goals. In response to public concerns identified during field visits and review of the FEIS, I have identified specific modifications to Alternative 8: **Units 1, 2 and 3 have been dropped and Units 7, 9 and 10 have been reduced in size** to address concerns that harvest would occur in stands that may have some characteristics of old growth. Deferring harvest in these units will give us time to gather additional information and ensure that the best available stands of old growth are retained to meet Forest Plan standards. The remaining harvest units do not include stands with old growth characteristics. The trade-offs of these modifications are discussed further for each resource in Section V, Activities and Effects Under the Selected Alternative.

Table 1 summarizes activities under the Selected Alternative and displays the differences between Alternative 8 as analyzed in the FEIS and Alternative 8 as modified (the Selected Alternative). Throughout this decision document, information provided for the Selected Alternative refers to Alternative 8 with the modifications I have identified here, unless specifically stated. Please refer also to the enclosed Selected Alternative and Transportation System maps.

In addition to the activities identified below, we analyzed the effects of implementing activities identified as “opportunities” – projects that could complement and improve resource conditions if funding becomes available, but not mandatory for project implementation. A description of these specific opportunities is provided in Attachment B.

Table 1. Comparison of Alternative 8 as analyzed in the FEIS and as modified for the Selected Alternative.

Feature	Alternative 8 as analyzed in the FEIS	Alternative 8 with modifications (Selected Alternative)	Difference
Watershed recovery treatments			
Miles of roadbed recontoured (obliterated)	76	76	No change
# of channel crossings removed	176	176	No change
# of culverts upgraded	21	21	No change
Miles of stream stabilization work	5	5	No change
Proposed harvest (acres)			
Clearcut w/ Reserve Trees	0	0	No change
Commercial Thinning	0	0	No change
Shelterwood Harvest	1,900	1,408	-492 acres
Selective (for instream use)	230	230	No change
Total acres of harvest proposed	2,130	1,638	-492 acres
Planting (white pine/western larch)	1,900	1,408	-492 acres
Yarding systems (acres)			
Skyline	1,690	1,297	-393 acres
Tractor	440	111	-329 acres
Helicopter	0	0	No change
Estimated timber harvest volume*			
Cunits (hundreds of cubic feet)	57,400	37,100	-20,300 CCF
Million board feet (MMBF)	27.0	17.5	-9.5 MMBF
Proposed Road Work (Miles)			
Permanent road construction (miles)	0.2	0.2	No change
Temporary road construction (miles)	4.0	2.0	-2.0 miles
Road reconstruction (miles)	30	29	-1 mile
Number of new stream crossings	2	1	-1 crossing
Additional acres of allocated recruitment old growth	1,380	1,380	No change
Fuel treatment (underburning)	1,340	986	-422 acres

Under the Selected Alternative, I am authorizing the following activities:

- **Watershed restoration:** Improve water quality and riparian habitat by obliterating approximately 76 miles of roads not needed for the long-term transportation plan, removing 176 culverts, upgrading 21 culverts, and stabilizing 5 miles of stream channels. Approximately two-tenths of a mile of road construction is associated with this watershed restoration, to allow removal and relocation of a section of road that is encroaching on a stream channel. Also, selective harvest will occur on an estimated 230 acres to provide wood for instream stabilization work.
- **Vegetative restoration:** Improve the long-term health and vigor of forest stands through the use of shelterwood timber harvest followed by planting of the more resilient species of white pine and western larch seedlings on approximately 1,408 acres in the project area. Approximately 2 miles of temporary road construction and 29 miles of road reconstruction will occur in association with this vegetative restoration. One new stream crossing may be needed to access a unit.
- **Old growth recruitment:** Increase the amount of interior forest and old growth habitat by allocating approximately 1,380 acres of additional stands for management as recruitment old growth.
- **Fuels reduction:** Reduce fire hazard and potential fire severity and prepare sites for planting through the use of underburning in the harvest units (approximately 986 acres).
- **Monitoring:** Monitor to measure how well we implement the above activities, how well the activities are achieving the effects we predicted, and long-term trends resulting from our actions.

Each of these activities is discussed in more detail in Section V. Activities and Effects Under the Selected Alternative. Activities will be implemented through commercial timber sales, stewardship contracts, and service contracts, as discussed in Section XI. Implementation.

I have made this decision based on how well the Selected Alternative addresses the purpose and need for action; its' consistency with the goals and findings of Forest Service policy and legal mandates; how well it responds to the environmental issues and concerns identified by the public, other agencies, and Forest Service resource specialists; and the effects of the Selected Alternative in comparison to other alternatives considered.

II. Project Background

Early miners and settlers arrived in the Coeur d'Alene River Basin about 1870. The forests were largely made up of white pine, western larch, and ponderosa pine, all sturdy, long-lived tree species that could withstand natural levels of insects and diseases, and the fires that occasionally burned through the area. During the first half of the century, loggers built splash dams and flumes to remove timber from the hillsides. This made removing the timber easier, but was damaging to streams and their watersheds.

Although large fires occurred in the Coeur d'Alene River Basin in the late 1800's and early 1900's, this area escaped the worst of the fires, which resulted in an abundance of large white pine that attracted the logging industry. It was in the early 1900's that we first began to see white pine blister rust in this area. Blister rust is a fungal disease that appears as cankers on the branches or trunks of the trees, weakening and eventually killing the tree. Early efforts were made to control the disease, but had limited success, and the battle against blister rust continues. In the 1930's and 1940's, a logging railroad extended into the Iron and Honey Creek watersheds, allowing the valuable timber to be marketed nationwide.

Starting in the 1950's, roads were built throughout the area to haul out the timber using trucks. The roads opened up the forest and (since they were often built in the valley bottoms) resulted in further damage to the streams. At many locations, culverts were installed so the road could cross the stream. Often these culverts created a barrier to fish that would normally have migrated upstream to spawn.

With plenty of deer, elk, and other game animals, hunters have long found success in the area. Roads and trails leading to streams and shady campsites have enticed visitors to the forests. In recent decades, more affordable ATV's and snowmobiles have made the area a popular destination year round.

In October 1996, the Coeur d'Alene River Ranger District began an assessment of the headwaters of the Upper Little North Fork Coeur d'Alene River. The assessment considered current resource conditions and public uses in the area, and identified concerns relating to those resources and conditions. The assessment resulted in a number of proposed activities that could maintain or improve resource conditions in the area. Through internal and public scoping the District identified key issues and developed six alternative management strategies. These alternatives were analyzed in detail and the environmental effects disclosed in the Iron Honey Draft Environmental Impact Statement (DEIS), distributed to the public in April 2000. The DEIS was available to the public for 45 days of review and comment. Revisions to the DEIS were then made based



Figure 2. Iron Honey Resource Area Overview Map.

on public comment and additional analysis, including development of a new alternative (Alternative 8). The Final EIS (FEIS) was provided to the public in December 2001 for 30 days review. My decision was made following a thorough review of the FEIS and public comments received regarding the proposal.

III. Issue Identification and Alternative Development

This section describes the process used to identify issues, determine the purpose and need for action, and develop alternatives. The flow chart below helps to depict the process described in this section.

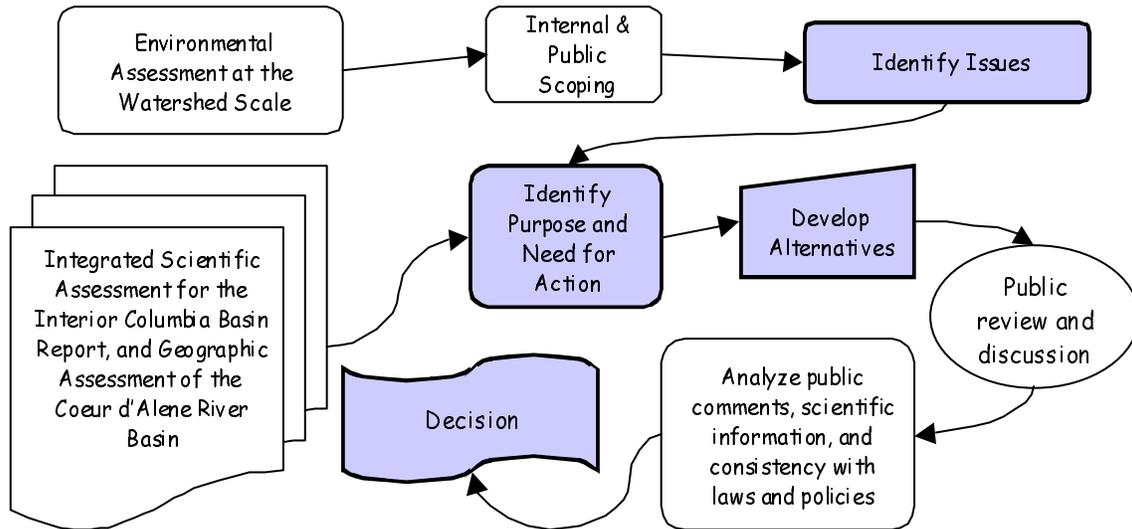


Figure 3. Issue Identification and Alternative Development Flow Chart.

III. A. Identification of Issues

The project team used the 6-step process outlined in the “Federal Guide to Watershed Analysis - Environmental Analysis at the Watershed Scale” (USDA Forest Service, August 1995) to focus on proposed activity areas, describe current conditions, and identify possible treatment alternatives. Documentation related to the process is provided in the project files (“Alternative Development”). These findings were then presented to the public as we sought their input into the proposal. During scoping, they helped to identify current uses, problem areas, and ideas for managing the area. The following table briefly identifies the activities that occurred during the scoping process for the Iron Honey project. Greater detail is provided in Attachment E (Public Involvement and Comment).

Table 2. Overview of Public Involvement Activities During Scoping.

Activity	Timing
Notice in the IPNF Quarterly Schedule of Proposed Actions	October 1996 to present
News Release to area newspapers announcing public field trip	September 24, 1997
Letter to interested members of the public regarding public field trip	September 24, 1997
Field visit with members of the public	October 4, 1997
Letter to interested public sharing field trip discussions	November 6, 1997
Notice of Intent to prepare an EIS published in the Federal Register	March 6, 1998
Legal notice in the newspaper of record announcing intent to prepare an EIS	March 6, 1998
Letter to interested public providing an update on the project	April 2, 1998
Field visit with US Fish & Wildlife Service	October 8, 1998
Letter to interested public providing an update on the project	March 17, 1999

These activities identified issues pertinent to this proposal, helped drive the development of alternatives and highlighted environmental concerns as discussed further in Sections III.C. Development of Alternatives, and Section V, Comparison of Activities and Effects Under the Selected Alternative. The issues addressed in detail in the FEIS included:

- *Aquatic resources and fisheries (including 303(d) Water Quality Limited Stream Segments)*
- *Vegetative resources (including old growth)*
- *Soils*
- *Fire/Fuels*
- *Wildlife*
- *Recreation opportunities*
- *Scenic values*
- *Financial considerations*

In addition to these nine issues, the Ecology Center and Kootenai Environmental Alliance emphasized the importance of the cumulative effects analysis, which is addressed through the documentation of effects in the FEIS (Chapter III), rather than as a separate issue.

Based on the assessment of effects and public comment, we determined that most other issues could be adequately mitigated or addressed by design features or other aspects of the proposed activities. These include Threatened, Endangered and Sensitive plant species, specific Threatened, Endangered and Sensitive wildlife species, noxious weeds, air quality, heritage resources, grazing allotments, and public safety. That's not to say these issues weren't considered or discussed in the EIS; they simply did not warrant extensive discussion, as briefly described in the FEIS (Appendix A, "Issues Not Addressed in Detail"). For more information regarding concerns identified by other agencies and members of the public, please refer to Attachment E.

III. B. Identification of the Purpose And Need For This Project

In addition to the issues identified during scoping, we used two key sources of information to identify the purpose and need for this project. The first is the "[Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin](#)," published in 1996 and used as a basis for evaluating the conditions in the Little North Fork watershed in comparison to the trends and conditions in the Interior Columbia River Basin. The assessment covered the Columbia River Basin in Washington and Oregon east of the crest of the Cascade Mountains, most of Idaho, and small portions of Utah, Nevada, and Montana for a total of 145 million acres. The scientific findings from this assessment show that the river basins of the Idaho Panhandle National Forests have a low level of overall ecological integrity primarily due to past timber harvest and the construction of transportation systems (Integrated Scientific Assessment, page 113). In the assessment, the Iron Honey Resource Area is within an ecosystem type identified as "Forest Cluster 4," with the following conclusion: "Fuel management is a priority for maintenance of hydrologic function in these subbasins. Aquatic integrity is judged low or moderate. Recovery of both aquatic and terrestrial ecosystems requires active and intensive restoration efforts. These subbasins have high restoration potential with much to gain and relatively little to lose." The Interior Columbia Basin Ecosystem Management Project is discussed in the FEIS, pages II-3 and II-4.

The second key source of information we used in developing the purpose and need was a watershed assessment for the Coeur d'Alene River basin completed in February 1998, entitled "[Toward an Ecosystem Approach: An Assessment of the Coeur d'Alene River Basin](#)." This document, referred to as the "Geographic Assessment," provided information regarding the ecological conditions specific to the Coeur d'Alene River Basin. The recommendations and strategies presented in the Geographic Assessment were based on three major groups of findings: 1) social and economic, 2) landscape and terrestrial, and 3) aquatic. The findings of the assessment are consistent with the findings of the Upper Columbia River Basin findings at the next scale down. The Geographic Assessment identified the Upper Little North Fork as having priority for both vegetative and watershed restoration, with the aquatic restoration needs focused in Honey and Hudlow Creeks (Geographic Assessment, page 65). The vegetative and aquatic restoration activities that will occur under the Selected Alternative are consistent with the recommendations and strategies of the Geographic Assessment. The Geographic Assessment is discussed in greater detail in the FEIS (page II-6).

These larger scale studies provide a comprehensive picture of the existing conditions, and identify those ecosystems that present the greatest need for restoration. This also helps us understand the cumulative effects of our actions.

Another source of information was the Northern Region Overview and Summary (USDA April 1999), discussed in the FEIS on pages II-4 and II-5. The Northern Region Overview findings 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 (Northern Region Overview Summary, page 9). The activities that will occur under the Selected Alternative are consistent with the findings and recommendations of the Northern Region Overview.

We concluded from the information contained in these documents that the Upper Little North Fork Coeur d'Alene River watershed was a priority for both vegetative and watershed restoration. Using this information and the issues identified by the public during scoping, we identified four primary purposes for this project:

1. *Improve water quality and riparian habitat.*
2. *Trend the vegetative species composition toward historical levels, which included species more resistant to insects and disease.*
3. *Increase age-class diversity and reduce old-growth fragmentation.*
4. *Reduce fire hazard and potential fire severity.*

Further discussion of the conditions that led to identification of these as the primary purposes is provided under the issues in Sections V.A. (Aquatic Resources), V.B. (Vegetation Resources), and V.C. (Fire/Fuels).

III.C. Development of Alternatives

Development of Alternatives Considered in Detail

Working with the public and other agencies, we used information from larger area studies (discussed in Section III.B), current condition data in the Iron Honey Resource Area, and public comments to develop 6 possible scenarios to address the Purpose and Need for Action in managing the Iron Honey Resource Area (we later developed an additional alternative based on public recommendations – please refer to the "Development of New Alternatives Considered in Detail" discussion in this section). The 6 initial alternatives are described briefly below (Alternative 4 was an alternative considered but eliminated from further study, as discussed later in this document). A summary comparison of management activities that would occur under each alternative is provided in the table that follows the alternative descriptions.

- ◆ **Alternative 1** is the No-Action Alternative, under which we would virtually walk away from the area for the time being in terms of forest management – none of the proposed vegetative or watershed restoration activities would be implemented, and management would continue at the same level as in the past. For example, road management and maintenance would continue as guided by the District's Travel Plan. Groomed snowmobile routes would remain as they are. Future projects, such as forest management, watershed restoration, or wildlife habitat improvement, could be proposed in the area. Consideration of a No-Action Alternative is required by the National Environmental Policy Act (NEPA).
- ◆ **Alternative 2** proposed a combination of timber harvest, fuels treatment, and watershed restoration activities. This alternative would promote white pine and western larch forests on about 1,100 acres to more closely resemble their historical condition, using only the "shelterwood" harvest treatment and focusing on the Iron Creek drainage.
- ◆ **Alternative 3** proposed a combination of timber harvest, fuels treatment, and watershed restoration activities. Clearcut harvests would occur on about 290 acres (in 5 to 10-acre openings), and thin stands of western larch on about 140 acres. Under this alternative we would treat a relatively small portion of the watershed, but would need to re-enter the area at regular intervals for long-term tending (such as thinning) of these treated stands in the coming years.

- ◆ **Alternative 5** also proposed a combination of timber harvest, fuels treatment, and watershed restoration activities, and is the most aggressive of the alternatives in terms of vegetative restoration. Timber harvest (including clearcut, shelterwood harvest, and commercial thinning) and fire would be used over a large portion of the Iron and Solitaire Creek watersheds (approximately 4,340 acres) within a period of about 5 years, but then we would stay out of the project area for at least 30 to 40 years (this is referred to as a “pulse” approach). On page II-14 of the FEIS, the “pulse” approach to forest management is described as when disturbances occur over a relatively short period of time and at lengthy intervals, allowing an ecosystem to return to its original (historic) processes or hydraulic condition between each disturbance. The original intent was to create a proposed action, and a set of alternatives that concentrated the disturbances of tree removal, reforestation, and watershed rehabilitation into a short time span, and at a scale commensurate with the natural disturbance patterns. Due to other constraints invoked by law and regulation, it was not feasible to implement the scale of natural disturbance patterns in the Iron Honey Resource Area. This left the other part of a pulse disturbance, the temporal concentration of disturbance, the only likely approach given our desire to more closely mimic natural processes. Alternative 5 came closest to the scale of historic disturbance, with about 4,300 acres of regeneration harvests, but this still does not accurately represent the historic patterns, where vegetation was changed on the scale of hundreds of thousands of acres in the Coeur d'Alene River Basin (described in the FEIS, pages III-85 and III-86).
- ◆ **Alternative 6** was developed to address the aquatic issues discussed in Section V.A.1 (Aquatic Resources Issues), and in response to comments from Mike Mihelich (Kootenai Environmental Alliance) and Sara Denniston (Idaho Rivers United and Idaho Conservation League), who recommended focusing only on watershed restoration activities, with no commercial timber harvest or activities to reduce forest fuels. Under this alternative, we would selectively remove individual trees across approximately 380 acres to provide large pieces of wood to put into certain streams as part of the watershed restoration work.
- ◆ **Alternative 7** proposed a combination of timber harvest, fuels treatment, and watershed restoration activities very similar to Alternative 2, except that where Alternative 2 would depend entirely on shelterwood harvests to mimic extensive fires that occurred in the area historically, Alternative 7 would also use clearcutting and commercial thinning. The use of clearcutting in 5 to 10 acres patches is intended to mimic the mixed severity fires that create small openings more amenable to natural regeneration of white pine and western larch. These small openings would be located in stands where root disease is a major problem and in lodgepole pine stands where growth has stagnated. The commercial thinning is intended to mimic the low intensity fires that kill small diameter trees that are not fire resistant (such as Douglas-fir and hemlock), clearing out the understory and providing better growing conditions for fire-resistant white pine and western larch.

Please refer to Table 12 for a summary comparison of the activities proposed under each alternative.

Development of Alternatives Considered But Eliminated From Further Study

Based on information gathered during scoping, three additional alternative concepts were identified by the project interdisciplinary team but dismissed from further study, as discussed briefly below:

- **Extensive use of only prescribed fire (Alternative 4):** This alternative was eliminated from further consideration because it will not meet the purpose and need identified for the area and would result in unacceptable environmental impacts to area resources. The large-scale application of fire would likely result in a substantial increase in water yields and consume commercially valuable timber. Also, disease-resistant white pine would not be restored unless planted in the area, which would require a considerable amount of funding while the financial value of commercial timber in the burned areas would be lost.
- **Extensive use of even-aged harvest units not exceeding 40 acres:** Although extensive use of units 40 acres and less in size would help meet the objective of restoring white pine to the area, it would also lead to more stand fragmentation and require an extensive road system to allow stand tending in the years to come. Further development of this alternative was halted because additional fragmentation is contrary to the purpose and need for the Iron Honey Resource Area.

- **Extensive use of uneven-age management tools:** This alternative would not help trend the watershed toward improvement over the long term because an extensive road system will be required for stand tending (entries would need to occur every 20 years or so); nor would this alternative meet the objective of restoring white pine to the area. Therefore, this alternative was not developed further because it would not meet the purpose and need for the Iron Honey Resource Area.

Development of New Alternatives Considered in Detail

Existing conditions in the project area represent the effects of past activities. We analyzed the direct effects (those caused by the action and occurring at the same time and place), indirect effects (caused by the action but later in time or further removed in distance), and cumulative effects (effects of the activities when added to other past, present, and reasonably foreseeable future actions). We documented our analysis in a Draft Environmental Impact Statement (DEIS), and presented our findings to the public for their review. The following table summarizes the public involvement activities that occurred during review of the DEIS.

Table 3. Overview of Public Involvement Activities During DEIS Review.

Activity	Timing
DEIS sent to interested public for 45 days review	April 12, 2000
Legal notice in the newspaper of record announcing availability of the DEIS	April 14, 2000
Notice of Availability of the DEIS published in the Federal Register	April 21, 2000
Letter to interested public providing an update on the project	January 25, 2001
Presentation to Idaho Department of Environmental Quality	April 20, 2001
Presentation to Kootenai Environmental Alliance (KEA)	June 7, 2001
News article in the Coeur d'Alene Press regarding presentation to KEA	June 8, 2001
Field visit with members of the public	June 8, 2001
Presentation to U.S. Fish & Wildlife Service and congressional staffs	June 8, 2001

During review of the DEIS, members of the public provided comments that helped further define the analysis of effects and proposed activities, and which led to the development of Alternative 8. These people liked the watershed restoration of Alternative 6, but realized there wouldn't likely be enough funding to get the work done. As a compromise, we took most of the watershed restoration of Alternative 6 and some of the vegetative restoration and fuels reduction activities from Alternative 2 to develop a new alternative for consideration:

- ◆ **Alternative 8** proposed a combination of vegetative restoration, fuels treatment, and watershed restoration activities. The objective is to restore the forest to more closely resemble the historical conditions within both the Iron Creek and Solitaire Creek watersheds and the face drainages of the Upper Little North Fork Coeur d'Alene River, while financing a good portion of watershed restoration. The primary tool to accomplish this is timber harvest followed by replanting of resilient species such as white pine and western larch. As under Alternative 2, all of the commercial harvest would be done using the shelterwood method. As under Alternative 6, selective harvest would occur on about 230 acres so that we would have the large wood pieces we need to put into streams to improve fish habitat.

Based on what we heard from the public and additional information we gathered, we prepared a Final Environmental Impact Statement (FEIS) that thoroughly described the resources and uses of the Iron Honey Resource Area, the options for management, and our predictions as to the consequences of our actions. The following table identifies public involvement activities that occurred during review of the FEIS. For more information related to the public review period and public comments, please refer to Attachment E of this decision document.

Table 4. Overview of Public Involvement Activities During FEIS Review.

Activity	Timing
Field visit with representatives of environmental organizations, forest industry, media	November 8, 2001
FEIS sent to interested public for 30 days review	November 21, 2001
Presentation to Trout Unlimited and North Idaho Fly Casters	November 26, 2001
Legal notice in the newspaper of record announcing availability of the FEIS	November 28, 2001
News article in the Spokesman-Review announcing availability of the FEIS	November 30, 2001
Notice of Availability of the FEIS published in the Federal Register	December 1, 2001
Presentation to Four County Natural Resource Committee, Coeur d'Alene Chamber of Commerce, Idaho Department of Environmental Quality, KEA representatives	December 5, 2001
Presentation to Shoshone Natural Resources Committee (SNRC)	December 11, 2001
National Public Radio interview (District Ranger Joe Stringer)	December 12, 2001
News article in the Shoshone News-Press regarding presentation to SNRC	December 12, 2001
News article in the Coeur d'Alene Press regarding presentation to SNRC	December 15, 2001
Presentation at the Sportsman's Breakfast sponsored by Idaho Fish & Game	December 18, 2001

Public comments received during the FEIS review period primarily reiterated previous concerns, in some cases providing additional detail or further discussion. No new issues or alternatives were identified based on public comments, although public comments did result in modifications to the amount and location of activities that will occur and how activities will be implemented under the Selected Alternative. Modifications are described on page 1 of this decision; other changes are included for each resource in Section V, Comparison of Activities and Effects Under the Selected Alternative. Responses to comments received during the FEIS review are provided in Attachment E, with copies of each letter submitted.

IV. Rationale for My Decision

I have decided to implement Alternative 8 with the specific modifications identified on page 1 of this decision. Alternative 8, identified as the preferred alternative in the FEIS, was developed in response to comments from the public, other government agencies, and internal reviews. As explained in Sections IV, V, VI and VII of this ROD, the Selected Alternative best addresses the combination of aquatic restoration needs and the vegetation restoration needs we have identified, and provides the financial means to accomplish our objectives better than any other alternative. The Selected Alternative provides the opportunity to put into practice the recommendations from studies such as the Interior Columbia River Basin Ecosystem Management project and the Coeur d'Alene River Basin Geographic Assessment, while furthering Forest Plan goals and objectives.

It is my opinion that Alternative 8, as modified, best addresses all four primary purposes of this project. It provides the best opportunity for long-term improvement in water quality and riparian habitat through extensive watershed recovery treatments and provides the financial means to accomplish these objectives. Through harvest of fir and hemlock on 1,408 acres and replanting with white pine and larch, we begin to trend vegetative species toward historic levels. These species are also more resistant to root diseases and other pathogens, leading to improved age class diversity and old forest structure when considering the additional acres of allocated recruitment old growth. We also make progress in reducing fire hazard and potential fire severity on 1,408 acres.

As modified, Alternative 8 is still within the range of alternatives considered in the FEIS in terms of the scope of the proposal and the predicted environmental consequences. I did not choose to implement one of the other alternatives for the reasons described below.

Alternative 1 (No-Action): Since no new activities would be implemented in the Iron Honey Resource Area under this alternative, there would be no short-term impacts to resources such as aquatics, soils, and wildlife, or to recreational opportunities. However, the No-Action Alternative would not meet any of the identified needs for watershed restoration, vegetative restoration or fuels reduction, and the long-term trend in declining forest and watershed health would continue, making this the least beneficial of all alternatives. For these reasons, I did not select Alternative 1 for implementation.

Alternative 2: This alternative would accomplish a combination of watershed and vegetative restoration activities, but to a lesser extent than the Selected Alternative. In addition, vegetative restoration (using the shelterwood harvest method) would only occur in the Iron Creek drainage, not treating other stands in need of restoration. For these reasons, I did not select Alternative 2 for implementation.

Alternative 3: This alternative would accomplish some watershed and vegetative restoration activities, but to a much lesser extent than other alternatives. No stream stabilization work would occur. Harvest treatment methods would be primarily clearcuts, with some commercial thinning. Because only a small portion of the Resource Area would be regenerated each entry, similar stand-level harvests could be anticipated every 10 to 15 years. In order to display a range of effects for comparison, no additional recruitment old growth would be allocated under Alternative 3, which would not address the identified wildlife habitat needs. For these reasons, I did not select Alternative 3 for implementation.

Alternative 5: This alternative would provide the greatest trend in vegetation composition toward historic levels. Alternative 5 is much less likely than Alternative 8 to generate revenues sufficient to fund the road and stream restoration activities (FEIS, pages III-205 to 208). Alternative 5 poses greater risks to fisheries than Alternative 8 (FEIS, pages III-60 to III-72) and does not provide near the level of watershed recovery treatments offered by Alternative 8. For these reasons, I did not select Alternative 5.

Alternative 6: Alternative 6 would provide the most watershed restoration activities, followed by Alternative 8. Representatives from the Lands Council, Kootenai Environmental Alliance, and others have recommended we select Alternative 6. The road obliteration and instream channel work proposed under Alternative 6 would cost approximately \$2.5 million and is dependent upon Congressional appropriations for funding (FEIS, pages III-207, 208). From 1992 to 2001, an average of approximately \$110,000 of appropriated funds per year was available to the Coeur d'Alene River Ranger District for watershed restoration activities across the district (FEIS, page III-208). Based on past and present budget allocations, it is highly unlikely that funding for Alternative 6 would be available. Without any vegetative restoration or fuels reduction activities, Alternative 6 also fails to address the restoration needs for vegetation we have identified. Either of these reasons is sufficient for not selecting Alternative 6.

Alternative 7: This alternative was similar to Alternative 2, but would use a combination of harvest methods (primarily shelterwood, with some clearcutting and commercial thinning) and yarding methods (primarily skyline, with some tractor and helicopter yarding). At the time it was developed, Alternative 7 represented the middle ground between Alternatives 2 and 5. This alternative would accomplish less watershed and vegetative restoration than the Selected Alternative. Only 800 acres of recruitment old growth would be allocated, which is less than under the Selected Alternative. Because it would be less effective in meeting all facets of the Purpose and Need, I did not select Alternative 7.

Additional rationale for the selection of Alternative 8 is included in the following sections.

V. Activities and Effects Under the Selected Alternative

For each resource, the following information is provided:

- **Issues:** a brief description of the specific issues related to the resource
- **Activities:** a brief description of the specific activities (if any) that would occur under the Selected Alternative to address the resource-related issues
- **Effects:** a summary of effects on the resource under the Selected Alternative, including any change in effects as a result of the modifications to Alternative 8 (additional discussion of effects to each resource as a result of the modifications to Alternative 8 is provided in the Project Files ("Record of Decision"))
- **Measures:** a description of measures (if any) identified to protect or enhance each resource
- **Mitigation:** identification of specific mitigation measures (if any) that will be required during implementation. These measures were identified after analyzing the potential effects of proposed activities, to reduce impacts to natural resources. These measures will be incorporated into the project design, timber sale contract, and other contracts and project plans.
- **Public concerns:** brief discussion of public concerns related to each resource. Additional discussion is provided in Section III. Issue Identification and Alternative Development, and in Attachment E, Public Involvement and Comments.

V.A. Aquatic Resources

Aquatic Resources Issues

► **Aquatic resources and fisheries:**

During scoping, concerns related to aquatics and fisheries habitat were identified by the Forest Service and other agencies (including the Environmental Protection Agency and Idaho Department of Environmental Quality) as well as environmental organizations (Ecology Center, Kootenai Environmental Alliance, and Idaho Rivers United /Idaho Conservation League).

Many watersheds in the Coeur d'Alene River Basin continue to recover from the residual effects of historic disturbances (such as large fires), as well as from ongoing human disturbances (such as timber harvest and road building). Water yields have changed over historic levels within the Upper Little North Fork Coeur d'Alene River, primarily due to extensive vegetative changes from logging and through the extension of channel networks associated with roading.



Figure 4. Location of the Iron Honey Project Area in the Little North Fork Coeur d'Alene River Drainage.

The most serious process influencing the tributaries in the Upper Little North Fork is the failure of roads, road fills, and road channel crossings in close proximity to streams. Many roads in the analysis area have experienced failures, whether due to inadequate design or construction methods, a lack of maintenance, or the inevitable degradation over time. Typically, where instream failures or evidence of channel instability are found, upstream road-related failures that directly compromised the stream can also be found. Water quality, fish habitat, and riparian habitat can be improved by removing channel crossings and recontouring and/or scarifying, seeding, and constructing waterbars in the roadbeds of closed roads.

The Geographic Assessment identified all principal tributaries in the Iron Honey Resource Area as “functioning at risk” (FEIS, page III-6), with the exception of Iron Creek, which is identified as “non-functioning.” Watersheds that are considered “functioning at risk” are the highest priority for aquatic restoration and protection. This issue helped drive the development and design of alternatives, including measures designed to protect or enhance aquatic resources.

► **§303(d) Water Quality Limited Stream Segments:** The Little North Fork of the Coeur d'Alene River from the headwaters to Laverne Creek is a §303d-listed stream segment for flow alteration, habitat alteration and sediment. Under authority of the Clean Water Act, the EPA and States must develop plans and Total Maximum Daily Load (TMDL) objectives and plans designed to restore listed stream segments. Idaho Department of Environmental Quality (DEQ) recently developed the “North Fork Coeur d'Alene Sub-basin Assessment and TMDLs” and submitted the package to the Environmental Protection Agency for approval. We are participating in development of the TMDL implementation plan, in partnership with Idaho Department of Lands and the USDI Bureau of Land Management. Specific features of the alternatives were designed to address this issue as part of the analysis of effects to aquatic resources.

Watershed Restoration Activities Under the Selected Alternative

Under the Selected Alternative, there are a total of 76 miles of road (currently closed to motorized use) that will be obliterated. These roads were considered as part of the District’s Access Management assessment and we

have determined that they are no longer needed for management of the area. The long-term health of the Iron Creek drainage will be greatly improved by removing stream crossings and streamside roads that are causing problems (please refer to the enclosed Transportation System maps).

The lower sections of Roads 794 and 1532 are located in and across the Iron Creek riparian area, with several stream crossings (culverts). These sections of Road 794 and Road 1532 will be obliterated. Because these roads are used year-round by the public and are part of the District's groomed snowmobile trail system, we have identified replacement routes (please refer to the enclosed transportation system map). Roads 1560 and 1550 will be opened to create a route between Horse Heaven and Crooked Ridge Road 258 to replace the Rablens Fork route (the upper end of Road 794) to Crooked Ridge. Colt Mountain Road 2346 will be upgraded and linked through to Argument Saddle and Road 1532. This new route allows the removal of the Moose Creek section of Road 1532, while still maintaining direct access to Argument Saddle from Horse Heaven. Approximately two-tenths of a mile of new road construction will be needed to make this change. These were considered to be the best replacement routes because they are nearby, don't have culverts that would cause problems, and are located up on the hillside, away from streams.

An estimated 176 culverts will be removed and 21 culverts upgraded. Removing the drainage structure or upgrading (increasing the size of) a culvert reduces the chance that the culvert will fail. Reducing this risk results in long-term benefits to the stream channel. A total of approximately 5 miles of stream channels will be stabilized by reconstructing degraded stream reaches, adding pieces of large wood to channels, and planting native vegetation along streambanks and in the flood-prone area. Restoring the stream channel pattern, profile and dimension will reduce sediment delivery from unstable streambanks over the long term. Increasing the amount of large woody debris will increase cover components and fish habitat.

Selective harvest (thinning with excavator yarding) will occur on an estimated 230 acres to provide wood for the instream stabilization work just described. The areas to be harvested to provide wood for instream restoration activities have changed, since three of the wood sources were within Units 1, 2 and 3. These acres of selective harvest will occur instead in units already analyzed and approved for harvest in the Callis Creek area (off Road 436) under the Small Sales EIS and Record of Decision (USDA Forest Service, 2001). In addition, the location and length of temporary roads have changed (there will be 0.6 fewer miles under the Selected Alternative), as well as the location of culverts. The change in temporary road construction between Alternative 8 and the Selected Alternative is a net reduction of 0.6 miles. Specific sources of this wood are identified on the enclosed Selected Alternative map. For additional discussion of the transportation system, please refer to the enclosed "Existing Transportation System" map and Attachment C, which provides an overview of the long-term transportation system development and the Roads Analysis Process.

Effects of the Selected Alternative on Aquatic Resources

Effects to aquatic resources under the Selected Alternative are slightly less than predicted than under Alternative 8 as described in the FEIS because of the modifications to harvest units under the Selected Alternative.

As displayed in Figure 5, effects to water and fish habitat were measured at three scales:

1. **Individual watersheds** (such as Tom Lavin Creek),
2. **the entire resource area** (measured for the total Little North Fork Coeur d'Alene River above Hudlow Creek), and
3. **an extended cumulative effects area**, measured for the Little North Fork Coeur d'Alene River above Skookum Creek.

Sediment yield: Annual sediment loading is reported as the percent change above the estimated natural sediment yield for the same area. The current percent sediment yield is 169% for the cumulative effects analysis area, and 187% for the extended cumulative effects analysis area. Effects to sediment yield under the Selected Alternative are slightly less than predicted for Alternative 8, due to the modification to temporary road construction (Project Files, "Record of Decision").

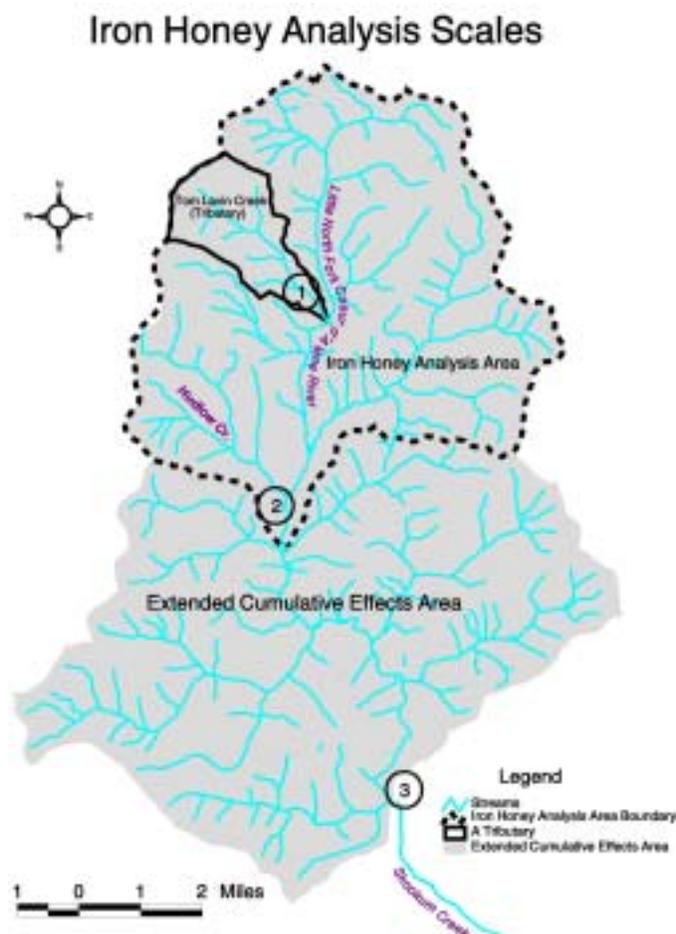


Figure 5. Geographic scales of the aquatics analysis.

At each of the three analysis points, there is the potential for slight increases in sediment over what would occur if we were to implement Alternative 1 or 6. These are not considered to be significant increases – the increase would not be measurable at a gauging station or by using a sampler. According to sediment guidelines (described in the FEIS, page II-30), if the increase over existing levels (represented by Alternative 1) is 10% or less, potential exists for an increase in sediment or delay of watershed recovery, but the increase would not likely be measurable. The Selected Alternative is well within this guideline, with 0 to 7% increases in the tributaries, a 6% increase at the cumulative effects area, and a 3% increase at the extended cumulative effects area (Project Files, "Record of Decision," and FEIS, Section 3.2.4). The watershed benefits from restoration activities such as road obliteration and instream improvement are greater than the potential impacts from management activities (FEIS, page III-31).

Sediment delivery risk: Risk of sediment delivery is most associated with failures at stream crossings and with road construction (both temporary and permanent). Upgrading and/or removing stream crossings will reduce this risk (discussed in the FEIS, page II-32). The effects analysis considered the potential reduction of yearly sediment (estimated in tons per year) that could be delivered at the mouth of the stream or the downstream reach from the inventoried transportation system, including both system and non-system roads. Under the Selected Alternative, sediment delivery risk would be reduced by 929 tons per year.

Stream channel crossings: Removal of stream crossings (where appropriate) reduces the risk of increased sediment delivery in the future (discussed in the FEIS, page II-31). The Selected Alternative would remove 176 crossings.

Peak flow: The modifications to Alternative 8 would reduce the potential direct effects to peak flows and stream velocities under the Selected Alternative (Project Files, "Record of Decision"). According to peak flow guidelines (FEIS, pages II-32 and II-33), if the increase over existing levels (represented by Alternative 1) is 0 to 5%, potential exists for an increase in peak flow or delay of watershed recovery, but the increase would not be measurable. If the increase is 5 to 10%, there is slight potential that there would be a measurable increase in peak flow or delay of watershed recovery. Under the Selected Alternative, there would be a 5 to 8% increase in tributaries, a 3% increase in peak flow for the total Little North Fork (above Hudlow Creek) and a 2% increase for the Coeur d'Alene River (above Skookum Creek) over Alternatives 1 and 6, both of which would also result in slight increases over the current conditions (Final EIS, Section 3.2.4). Therefore, there would be no measurable increase in peak flow at the cumulative effects or extended cumulative effects scale.

Net decrease in roads: The miles of road (road density) in the Iron Honey Resource Area would decrease as a result of watershed restoration activities, with the additional benefit of improving wildlife security. Of all alternatives, the Selected Alternative would result in the lowest open road density (1.4 miles per square mile) and total road density (1.7 miles per square mile).

Reduction in encroaching road miles: There would be a net reduction in encroaching road miles of 3.6 miles under the Selected Alternative. Reducing the miles of road that are encroaching upon streams is extremely important for maintaining the long-term viability of fish species, as well as maintaining terrestrial species that rely on riparian habitat. The primary risks associated with roads that encroach on stream channels and active flood-prone areas is that they often lead to modified hydraulics, such as increased velocities and flow patterns that speed up channel erosion. Encroaching road fills also prohibit establishment of bank stability, vegetation, and effective cover and habitat for fish. The direct effect of reducing the amount of road that is encroaching upon streams is reduced flow velocity. Indirect effects include an increase in habitat complexity and fish carrying capacity.

Removal of vegetation along streams: Maintaining riparian habitat helps trend conditions toward the large woody debris Riparian Management Objective identified by the Inland Native Fish Strategy. For this project, the amount of vegetative disturbance that would occur in the riparian area is a surrogate measurement for changes in stream temperature, habitat diversity, cover complexity, and channel stability. For consistency, riparian habitat was considered to be an average distance of 300 feet from fish-bearing streams, 150 feet from non-fish bearing streams, and 75 feet from intermittent streams. The modifications to Alternative 8 reduced the approximate feet of riparian vegetative disturbance in the Little North Fork Coeur d' Alene River watershed (above Iron Creek) by 20 acres (from 185 to 165 feet). For perspective, there are just over 78 miles (approximately 414,000 feet) of streams in the Iron Honey Resource Area.

Increased fish passage: The placement of culverts at road crossings alters the ability of fish to utilize stream habitat above the culvert. The direct effects of modifying these culverts are increased fish passage. The indirect effects are movement of fish to portions of streams not previously used; however, replacement activities may also increase short-term sediment production. Over the long term, there would be an increased probability of persistence of Management Indicator Fish species (FEIS, page II-35). By removing culverts and stream crossings, the Selected Alternative will increase fish passage by 2.1 miles. Based on our analysis of effects, the fisheries scientist determined the project may effect bull trout populations or habitat, but will not likely trend toward federal listing of the species (Section VII.B. Endangered Species Act). US Fish and Wildlife Service has concurred with this determination (Attachment D). With the reduction in both harvest acres and miles of road construction, there are no measurable changes (either positive or negative) in the effect to the water resources or fisheries. Because these changes in effects are slight, there would be no change to the determination of effects to listed Threatened, Endangered or Sensitive fish species (Project Files, Biological Assessment).

Measures to Protect or Enhance Aquatic Resources

In development of the Selected Alternative, standards and guidelines of the Inland Native Fish Strategy were used specifically to protect water and aquatic biota within the Resource Area. 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 harvest units. 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. Stream channel buffer widths are described in the FEIS, pages II-20 and II-21. Instream work will be avoided prior to July 15 each year because it can cause increased sedimentation (fines) while the work is being conducted. Timing guidelines are used to reduce impacts to eggs and fry.

Under Alternative 8, there were originally 2 potential stream crossings needed in the lower half of Unit 10. That portion of Unit 10 has been dropped under the modifications to Alternative 8. As a result of modifying Unit 9, 1 new temporary stream crossing may be needed on Road 1450L-UDT. If needed, the period of time this crossing would be used would be as brief as possible followed by its removal, in order to minimize impacts to the stream.

To minimize erosion and ensure compliance with State water quality standards, all road construction and timber harvest associated with the Iron Honey project will be completed using Best Management Practices. Monitoring of Best Management Practices has determined that recent projects on the Coeur d'Alene River Ranger District have been implemented as designed (USDA Forest Service, 2000, Idaho Panhandle National Forests Monitoring - 1999, p. 35). 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. Many 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).

Review of research reports and published professional papers demonstrate that the Inland Native Fish Strategy reduces the risk of loss of inland resident native fish populations or negative impacts to their habitat on National Forest System lands in the assessment area (Inland Native Fish Strategy Decision Notice and Environmental Assessment, Appendix C).

Mitigation to Reduce Effects to Aquatic Resources

No mitigation measures are needed to reduce effects to aquatic resources, since effects would be so slight as to not be measurable at the cumulative effects and extended cumulative effects areas, as discussed earlier.

Public Concerns Related to Aquatic Resources

Nearly every one of the letters we received included comments emphasizing the need to protect our water resources (Attachment E, Public Involvement and Comments). Several commented specifically on water yield in the project area. Basically, the concern is that by removing the tree canopy in the project area, peak water flow will increase, causing erosion in streambanks and increasing the transport of heavy metals in the Coeur d'Alene River. According to those commenting, heavy metals would be transported through the Coeur d'Alene River system, Lake Coeur d'Alene, Spokane River, and to the Rathdrum Aquifer, where the heavy metals would pose a threat to drinking water use by residents of Spokane and surrounding areas.

In response to these concerns, Rick Patten (IPNF Hydrologist and Watershed Program Leader) conducted a brief analysis and perspective ("Extended Cumulative Effects Analyses for the Iron Honey Analysis," Patten, 2002; Project Files, Record of Decision). Our analysis indicates the potential for a 2 percent increase in peak flows in the extended cumulative effects area as a result of canopy removal. The project area is located at the headwaters of the Little North Fork Coeur d'Alene River, and constitutes approximately 2 percent of the Coeur d'Alene River Basin. The following table provides a perspective of the project area, affected tributaries and the main river.

Table 5. Overview of area and average annual peak flows for the Iron Honey Resource Area and cumulative effects analysis scales.

Watershed Area	Watershed Area (miles ²)	Watershed Area Relative to the Coeur d'Alene River Basin (percent of Basin)	Average Annual Peak Flow (cfs)
Iron-Honey project area (Little North Fork Coeur d'Alene River at Hudlow Creek)	34	2	879
Project "cumulative effects" analysis area: Little North Fork Coeur d'Alene River above Skookum Creek	77	5	1,838
Little North Fork Coeur d'Alene River at mouth	170	12	3,740
North Fork Coeur d'Alene River above Little North Fork Coeur d'Alene River	711	48	14,220
North Fork Coeur d'Alene River	896	61	18,387
South Fork Coeur d'Alene River	299	20	6,279
Coeur d'Alene River near Cataldo	1,223	83	22,348
Coeur d'Alene River at Harrison	1,475	100	28,025

In this watershed area of approximately 34 square miles, project activities will remove about 70% of the canopy on an estimated 1,408 acres. Assuming a scenario where this increase in peak flows coincides with a similar flood response in the remaining 98% of the basin, the potential contribution of the project is approximately 0.046% of the maximum peak flows at Harrison, Idaho, where the Coeur d'Alene River enters Lake Coeur d'Alene. The contribution is 0.055% at Cataldo, where the North and South Forks of the Coeur d'Alene River join the main stem of the Coeur d'Alene River. Given the natural variability in peak flows, and based on observations of USGS measurements of peak flows from 1912 to the present in the North Fork Coeur d'Alene River at Enaville, Patton concluded that this project does not present a measurable or potential risk of eroding streambanks along the Coeur d'Alene River, transporting heavy metals through the Coeur d'Alene River and Lake Coeur d'Alene, and polluting the drinking water of downstream users.

DEQ has reviewed the FEIS and concluded that Alternative 8 is consistent with IDAPA 58.01.03.0545, which implements §303(d) of the Clean Water Act (Attachment E). The modifications to Alternative 8 (described on page 1 of this decision) will generate less short-term, localized fine sediment, thereby enhancing attainment of Clean Water Act objectives. Watershed restoration activities such as those that will occur under this project are a key component to the TMDL strategy for the Little North Fork Coeur d'Alene River.

The US Environmental Protection Agency (EPA) has also reviewed the FEIS and concluded that it adequately disclosed the impacts and benefits from the Iron Honey project and adequately responded to their comments on the DEIS (Project Files, Public Involvement).

We designed alternatives to protect water resources as much as possible during implementation of the vegetative restoration, watershed restoration, and other project activities. Based on our analysis, effects to water resources during project implementation are well within acceptable limits, and long-term effects to forests and streams will be beneficial to water resources. We recognize that area watersheds have been damaged by past activities. In fact, the watershed is in such poor condition that the limited risks associated with this project are far outweighed by the benefits of the restoration.

V.B. Vegetation Resources

Vegetation Issues

► **Vegetative resources (including old growth):** Western white pine and western larch (which are both long-lived species more resilient to native insects and diseases and environmental conditions than other species) have significantly declined within the Coeur d'Alene River Basin as a result of white pine blister rust (introduced to the area in the early 1900's) and timber harvesting. Timber harvests in the past tended to remove these species while leaving species such as grand fir, hemlock, and Douglas-fir. Aggressive fire suppression has allowed the encroachment of Douglas-fir and grand fir into the understories, creating much denser stands over larger areas, and increasing the potential for stand-replacing fires. Harvest of disease-

prone species followed by regeneration of white pine and western larch within created openings will help restore these species within the analysis area. Stands with a major component of these early seral species will also be more resistant to root diseases and stem decay and better able to achieve the long-term objectives of stand structures, size class and pattern that more closely match historical conditions. The Geographic Assessment identified all of the watersheds in the Iron Honey Resource Area as a high priority for vegetation restoration due to the effects of white pine blister rust, past harvest activities, and fire exclusion.

Old growth has declined from a historic average of about 21 percent of the Coeur d'Alene River Basin to less than 4 percent. This was generally the result of aggressive harvesting of white pine and larch, and the loss of white pine to blister rust. Today, old growth on National Forest System lands in the Coeur d'Alene Basin tends to be in areas not burned in the 1910 fires, and tends to be fragmented by past timber harvest and road construction. Therefore, wildlife in the Little North Fork drainage would benefit from increasing the size and connectivity (juxtaposition) of old growth blocks by allocating additional recruitment old growth, promoting western larch and white pine old growth, and promoting large residual trees. The vegetation-related issues helped drive development (and modification) of alternatives, including specific measures designed to protect or enhance forest vegetation, the old growth resource, and rare plants, as well as mitigation measures to reduce effects to Threatened, Endangered and Sensitive plants.

Vegetation Restoration Activities Under the Selected Alternative

Please refer to the enclosed Selected Alternative Map. Under the Selected Alternative, a total of approximately 1,408 acres (7% of the entire Resource Area) will be treated using the shelterwood regeneration harvest method to open the area up for planting of white pine and western larch (please refer to the enclosed Selected Alternative map). Distribution of the harvest includes approximately 799 acres (13%) of the Iron Creek watershed, 245 acres (15%) of Solitaire Creek, and 364 acres (31%) of the face drainages of the Upper Little North Fork Coeur d'Alene River watershed. Skyline yarding will be used on 93% of the units, with tractor yarding used on the remaining 7%. No helicopter yarding is planned. Underburning will occur in all shelterwood harvest units to reduce potential fuels. Both natural seed sources and planted seedlings will be used to ensure regeneration.

Approximately 2 miles of temporary road construction will occur to provide access to Units 8, 9 and 16. These temporary roads will be closed following completion of project activities. All other units will be harvested from existing roads. Road reconstruction will occur on approximately 29 miles of existing road to facilitate timber removal. An estimated 17.5 million board feet, or 37,100 cunits (each cunit is 100 cubic feet) of timber products will result from the commercial timber harvest. Specific unit information is provided in the table below. Please note that in the FEIS (Table E-5), Unit 13 was incorrectly shown as being 77 acres in size – the correct figure is 56 acres, as shown in the table below. This error was in the table format only, and did not affect analysis of effects to any resource.

Table 6. Specific commercial harvest unit information, Selected Alternative.

Unit #	Acres	Prescription	Skyline yarding	Tractor yarding
4	166	Shelterwood	133	33
5	146	Shelterwood	131	15
6	46	Shelterwood	46	0
7	175	Shelterwood	158	18
8	266	Shelterwood	239	27
9	58	Shelterwood	55	3
10	189	Shelterwood	180	16
11	60	Shelterwood	60	9
12	119	Shelterwood	119	0
13	56	Shelterwood	56	0
16	127	Shelterwood	121	6
Total	1,408	~~~	1,297	111

The amount of interior forest and old growth habitat will be increased by allocating approximately 1,380 acres of additional stands for management as recruitment old growth; including 800 acres in Iron Creek watershed, 100 acres in Tom Lavin, 211 in Honey, and 268 in Sob Creek watershed. Within the next 10 to 30 years, most of this additional recruitment old growth will display the characteristics that define old growth, providing additional wildlife habitat for old growth-dependent species.

Effects to Vegetation Under the Selected Alternative

From a vegetation standpoint, the Selected Alternative is similar to Alternative 8 as described in FEIS (page II-18) except harvest would occur on nearly 500 fewer acres. This would be less effective than Alternative 8 in creating the large patch sizes associated with stand replacing fires. Early seral species would be planted on fewer acres (a reduction of about 26 percent of the level proposed under Alternative 8). Early seral species are less susceptible to native pathogens and are better suited to the local environment and ecological processes than Douglas-fir and grand fir, so these stands would be more likely to provide a long-term improvement in stand structure and resiliency. There are no differences between Alternative 8 and the Selected Alternative in terms of allocated old growth or recruitment old growth.

Forest structural stages: Structural stages categories are based on stand age and tree size class, as discussed in the FEIS (page II-36). The desired condition is to have a fairly even distribution between the four stages. Vegetative restoration activities under the Selected Alternative will trend stands in the area toward this condition (Project Files, "Record of Decision," and FEIS, pages III-119 through III-121).

The Forest Plan directs that we maintain at least 10% of the forested portion of the IPNF as old growth, and at least 5% of the forested portion of those old-growth units where it exists (FEIS, page III-121). The Coeur d'Alene River Ranger District is responsible for allocating 56,000 acres for old growth management; we currently have a total of 60,122 acres of allocated old growth (IPNF Forest Monitoring Plan Report for 1999, pages 57-59). No harvest will occur within allocated old growth stands. The only change to old growth will be in the amount of additional recruitment old growth allocated (the Selected Alternative will add 1,380 acres of recruitment old growth). Implementation of the Selected Alternative will increase the amount of allocated old growth to at least 5% where it exists in the old growth management unit (FEIS, page III-122).

Species composition: Findings of the Geographic Assessment indicate there has been a tremendous change in species composition within the Coeur d'Alene River Basin (for further discussion please refer to the FEIS, page II-38). Species that are more resilient to native insects and diseases and environmental conditions (such as western white pine and western larch) have declined as a result of white pine blister rust and historical timber harvest practices that tended to remove these species while leaving more susceptible species such as Douglas-fir, grand fir, and western hemlock. The desired condition would be to have a greater percent of stands in the hardier white pine and western larch cover types than in the Douglas-fir, grand, fir and western hemlock (or other) stands. The Selected Alternative would trend stands in the area toward this distribution by reducing the amount of Douglas-fir/grand fir/western hemlock by 8% (to 73%), and increasing the amount of white pine/western larch by 8% (to 14%).

Measures to Protect or Enhance Vegetation

Forest Vegetation: 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. Site preparation and/or fuel treatment may include a combination of prescribed burning, underburning, grapple piling and hand piling, depending on post-harvest conditions. In approximately 10-30 years cultural activities may occur as part of the stand tending in the harvest units. For example, pre-commercial thinning, pruning, cleaning and possibly fertilization could occur to meet target stand and management area guidelines. Access for stand-tending purposes will be maintained to all regeneration units, including past regeneration harvest areas in the Hudlow Creek drainage in which early seral species, particularly white pine, have been planted. Precommercial thinning and pruning has been shown to decrease mortality due to white pine blister rust (Schwant, Marsden, McDonald, 1994) and are important tools in managing for this species.

Old Growth: Under the Selected Alternative, no harvest, fuels treatment, or other activities will occur in allocated old growth or recruitment old growth stands. For those units that are directly adjacent to old-growth

stands, harvest design and subsequent treatments will be adjusted as necessary to protect the integrity of the old growth (for example, modification of harvest patterns to reduce the risk of timber blow down).

Rare plants: No harvest activity will adversely impact any known sensitive plant population. All known populations potentially adversely affected will be buffered from harvest activity by a minimum of 100 feet. Site-specific surveys will be conducted as necessary for in-stream watershed work in highly suitable riparian habitat. All newly identified sensitive plant occurrences will be evaluated and specific protection measures will be implemented to minimize impacts to that population occurrence and its habitat (identified in Section IV.B.6, below).

Noxious Weeds: Noxious weed prevention strategies on the Coeur d'Alene River Ranger District are conducted based on the Noxious Weeds FEIS and Record of Decision (USDA Forest Service, 1998). Known infestation sites and priorities for treatment were established in that document. Measures to protect TES plant population viability and habitat capability will be implemented following information provided in that document. There are many vectors of weed transport and invasion. One of these that can be effectively controlled is removal of seed-carrying soil and debris from equipment that is moved around the forest during operations. To help reduce the spread of noxious weeds and prevent the introduction of new invader species, the "Equipment Washing" contract clause will be used in all construction and timber sale contracts. While the practice of equipment washing is unlikely to remove 100% of this potential seed sources, it is highly effective at removing the majority of the seed-carrying capacity of the equipment, thus effectively reducing the potential for transport and invasion by noxious weeds. For further information regarding noxious weeds, please refer to the Project Files, Noxious Weeds.

Mitigation to Reduce Effects to Vegetation

TES Plants: Areas of activities that are identified as potential or highly suitable habitat for threatened and sensitive plants must be surveyed prior to ground-disturbing activities. Some areas previously surveyed may be resurveyed, based on the date and intensity of the most recent sensitive plant survey and the risk to sensitive habitat from proposed activities. The table below displays the approximate number of acres within activity areas (including harvest units, road construction, and road obliteration) that must be surveyed prior to project implementation. Survey acres were based on habitat queries, aerial photograph and topographical map interpretation, previous sensitive plant surveys, risk of adverse impacts to sensitive plants and suitable habitat from the proposed activity, and professional judgment. It should be noted that, in some cases, potential habitat occurs only in portions of units, and the entire unit will not be surveyed. Other highly suitable habitat adjacent to proposed units could be surveyed based on the potential risk of adverse effects from proposed activities. Areas to be surveyed may be adjusted as project design and layout progresses, to assure all activity areas are covered by surveys, and for efficiency in completing the surveys. Miles of road to be surveyed represent entire road segments within suitable habitat. Other than road segments proposed for new construction or obliteration, surveys will be conducted only on portions that are proposed for watershed restoration projects. There are no areas to be surveyed in the deciduous riparian, peatland, or subalpine guilds, therefore they are not included in the table.

Table 7. Acres of land and miles of road to be surveyed for TES plants.

Habitat Guild	Acres to be Surveyed	Miles of Road to be Surveyed
Wet forest guild	0	0.78
Moist forest guild	282	2.36
Dry forest guild	173	0.70
Grassland guild	10	0.00
Total	455	3.84

The requirement to survey, identify and protect populations from adverse effects and to buffer habitat for threatened species from all activities will be implemented prior to the award of the contract. We will administer the maintenance of any buffers protecting populations through the contract. We estimate the effectiveness of these measures to be "high," because planned surveys are conducted by trained botany personnel and any discovered habitat or populations are protected by physical buffers where ground-disturbing activities are not allowed.

Surveys for rare plants have been ongoing in the area. During the 2001 field season, surveys occurred in 10 of the 14 proposed units. No rare plants were found (Project Files, TES Plants). Surveys remain to be completed in four units. Should rare plants be located during surveys, one or more of the following protective measures will be implemented: 1) drop units from activity; 2) modify the unit or activity; 3) implement a minimum 100 feet (slope distance) buffer around sensitive plant occurrences as needed to minimize effects and maintain population viability; and/or 4) implement timber sale contract provisions for "Protection of Endangered Species" and "Settlement for Environmental Cancellation."

Public Concerns Related to Vegetation Resources

Comments received during scoping from Environmental Protection Agency and Kootenai Environmental Alliance (DEIS, Appendix A), and during review of the DEIS from Doris Gerhart (Attachment E, Comment Letter 07) specifically identified concerns related to protection of old-growth stands within the project area. The Selected Alternative will not only protect allocated old growth in the area, but adds another 1,380 acres for management as recruitment old growth, as discussed earlier.

Three of the 23 letters commenting on the DEIS (Don Johnston, Don Pischner, and Kathy Zanetti) expressed concern with the state of our forest health and management of our vegetative resources (Attachment E, Comment Letters 1, 14 and 19). Most other people focused on water resources concerns, as if it must be an "either/or" management approach. Vegetation and water resources are just part of the complex ecosystem – what happens to one component affects the others. Beyond the direct watershed restoration activities, the Selected Alternative will benefit the watersheds of the Iron Honey Resource Area over the long term as a result of improving the health and resilience of our forest. The healthier the forest is, the healthier the watershed as a whole.

V.C. Fire/Fuels

Fire/Fuels Issues

► **Fire/Fuels:** Historically, annual fires may have burned up to several hundred acres in small patches of overstory mortality mixed with larger areas of underburn before being stopped by summer rains. In particularly dry years when fire starts were followed by high winds, high intensity fires could cover from tens of thousands to hundreds of thousands of acres. The fire of 1910 is an example of a stand-replacing fire. These fires often killed most trees within the fire perimeter, leaving islands of trees in riparian areas or where recent low intensity fires had removed ladder fuels from the understory. There has not been a major large stand-replacing fire in the Coeur d'Alene Basin since 1931. Land management agencies have been particularly adept at putting out low and mixed severity fires, which have ceased to be a significant disturbance agent. This successful fire suppression has temporarily increased the security of human life and property, and made it easier to practice traditional forestry. However, as a result of the suppression of fire in a very productive ecosystem, woody dead fuels and multi-story stands are accumulating. The Coeur d'Alene River Basin shows the largest increase in forest fuels of any sampled watershed in the Interior Columbia Basin Assessment Area. This fuel accumulation increases the risk of wildfire and potential severity of the fire.

Only recently has fire policy been modified to recognize the importance of fire in balancing forest vegetation cycles. Of primary concern to the Forest Service are the long-term increase in fuel loading (the amount of combustible materials which contribute to the intensity of a fire) and the subsequent changes in fire intensity and severity that may occur. The Forest Service goals are to reduce fire hazard in the Iron Honey Resource Area to a level where cost effective resource protection is possible should a wildfire ignition occur, by reducing the potential fire severity. Specific features of the alternatives were designed to address this issue, including measures designed to aid in fuels reduction and protect air quality.

Activities Under the Selected Alternative

Fire hazard and potential fire severity will be reduced through the use of underburning in harvest units. The amount of underburning under the Selected Alternative is slightly less than analyzed in the FEIS, due to dropping part or all of some units, but the effects are still within the range analyzed in the FEIS (pages III-143 through III-148).

Underburning helps to reduce (but not entirely remove) the amount of dead trees, branches and brush on the forest floor. In the event of a wildfire, this would help keep the fire burning along the ground rather than in the canopy, reducing the fire intensity and therefore the firebrands that spark new fires. We would also be able to better control the fires through equipment and personnel available to us each fire season.

Effects to Fire/Fuels Under the Selected Alternative

As a result of activities that would reduce fuel accumulations and re-introduce seral species (such as white pine and larch), the Selected Alternative would trend toward reduced potential wildfire intensity and severity (FEIS, pages III-146 through III-148). Road closures will likely reduce firefighting efficiency and increase the amount of time for initial attack of a fire, although the closures may also slightly reduce human-caused fires due to the reduced access (FEIS, page III-146).

Measures to Protect or Enhance Conditions Related to Fire/Fuels

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” (BACT) 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. These measures reduce the fire risks and protect air quality to a level I find acceptable.

Mitigation Measures to Reduce Effects to Fire/Fuels Conditions

There are no mitigation measures necessary to reduce effects to fire/fuels conditions or air quality.

Public Concerns Related to Fire/Fuels

During scoping, comments from the public (Environmental Protection Agency and Ecology Center) identified concerns with how fuels reduction activities are carried out. As described above, specific measures have been identified to ensure the fuels reduction activities are carried out as planned. In his comments on the DEIS, John Bentley expressed concern with the “created illusion” of fire risk in the area (Attachment E, Comment Letter 12). He believes that this area of the Coeur d'Alene River Basin is a moist area, and therefore does not

pose a high-risk hazard of intense uncontrolled wildfires. This is indeed a moist area, but that does not mean that it is not at risk of stand-replacing fires. Our risk analysis was based upon information provided in the Interior Columbia Basin Ecosystem Assessment (USDA Forest Service, 1996), Geographic Assessment for the Coeur d'Alene River Basin (USDA Forest Service, 1998), A Wildfire Hazard Assessment for the Coeur d'Alene River Ranger District (Jerome, 2001), and other sources (FEIS, pages III-138 through III-142). As stated earlier, the fuels reduction activities under the Selected Alternative will help trend toward reduced potential wildfire intensity and severity (FEIS, pages III-146 through III-148).

V.D. Soils

Soils Issues

► **Soil productivity:** The Forest Service is required to ensure that management of the National Forests is accomplished without impairing the land's productivity. To achieve this, soil quality standards and guidelines are used to measure effects and design activities to avoid compromising soil productivity. Specific features of the alternatives were designed to address this issue, including measures designed to protect soil resources, and specific mitigation measures.

Activities Under the Selected Alternative

Under the Selected Alternative, there are no activities to improve soil conditions. However, the vegetative restoration activities could affect soils in the Iron Honey Resource Area as discussed below.

Effects to Soils Under the Selected Alternative

Compaction, displacement and severe burning can affect soil's physical, chemical and biological properties, which can affect the growth and health of trees and other plants (FEIS, page II-39). The FEIS analysis concentrated on soil disturbance and nutrition. Disturbance to the soils could be from compaction, puddling, displacement, or erosion, while soil nutrition could change when the soil is disturbed, or when nutrients are transported off site, such as the nutrients in sawlogs that move to the mill, or as chemical constituents of smoke and ash during forest fires. Under the Selected Alternative, disturbances will occur primarily in areas of road construction and in tractor-yarded units with skid trails. Minor disturbances will occur in skyline and cable-yarded units, and where fire lines are mechanically constructed around units.

Cumulative impacts were analyzed using a technical process that considers those factors determined to have an effect on soils, such as log skidding, roads, etc. The specific impacts of these activities are detailed in the "Soils" section of the project files, and in the FEIS, Section 3.4.2. Overall effects based on this cumulative analysis are summarized in the FEIS (beginning on page III-125). The soils analysis is based on monitoring data that was collected by soil scientists on the ground and has been analyzed by the Forest Soil Scientist to create a model capable of reflecting cumulative changes to soils. This "Spreadsheet Model" is designed to recognize the level of detrimental disturbance on any area where some level of harvest and/or associated treatment occurred. The information gathered from the sample sites included compaction, displacement and disturbance measurements attributable to specific management activities. The coefficients that are intrinsic to this model's operation were used in the calculations throughout the soils documents in the Project Files, and are designed to compare against the Forest Plan standard for detrimental disturbance. These coefficients are specific to the type of disturbance, as well as specific to the ash cap soils that occur on the Idaho Panhandle, and are based on data collected on the ground. Generally, the model has been validated on an annual basis, using information collected from sample stands, and has proven to be quite reliable, with only 2 revisions needed since its' inception in 1994. The results of this monitoring have led to information that is site-specific to the IPNF. The process of collecting information on detrimental disturbances continues as the ground crews do reconnaissance, but a common theme is that very little of the area was skidded with tractors in the past, as evidenced by the distinct lack of tractor skid trails. The preponderance of detrimental disturbance is in the form of "jammer" roads on 200-400 foot spacing.

Research by the Intermountain Forest Tree Nutrition Cooperative (IFTNC) is showing that potassium is inherently very low within portions of the Precambrian meta-sedimentary rocks known as the Belt Super-group. Current research indicates that the Prichard and Lower Wallace formations may be two of nine geologic formations on the Coeur d' Alene River Ranger District with consistently lower potassium levels (Garrison-Johnston, unpublished 2001).

Based on currently available research, it appears that tree bole removal, following Intermountain Forest Tree Nutrition Cooperative (IFTNC) guidelines, will result in considerably less loss of potassium than would be lost during a stand replacing wildfire, which is a fairly regular historical occurrence on this area (FEIS, page III-89, and Project Files, "Record of Decision"). When high intensity fires burn through mature forests, the burned needles, twigs and bark are carried up into the fire's smoke column and transported great distances away from their site of origin. Grier (1975) found that 35% of the potassium from a forested ecosystem was lost during wildfires, along with significant proportions of other macronutrients.

In comparison, shelterwood harvest treatments under the Selected Alternative involve removal of 70% of the basal area as sawlogs from the site, which removes about 4% of the site potassium. Tree boles contain about 14% of total tree potassium (Pang et al 1987). Work on the Coram Experimental Forest (Stark 1979) shows that intensive harvest (clearcutting) took away one fourth of one percent (0.25%) of the nutrients stored in the soil and rock of the root zone, and asserts that it would require 28,000 years of clearcutting on a 70-year rotation to exhaust the total nutrients in the present root zone. This estimate does not include inputs to onsite nutrients from atmospheric deposition, which can be substantial. Stark (1979) estimates that losses due to harvest would be made up by atmospheric deposition in 70-100 years. Potassium is also slowly made available to plants from biochemical and physical breakdown of the bedrock.

The modifications to Alternative 8 reduced the effects to soils under the Selected Alternative, since there will be fewer temporary roads on sensitive landtypes, particularly those in Units 9 and 10, and fewer acres of disturbed soils due to the elimination of the selective harvest within Units 1, 2 and 3 (to provide wood for instream restoration).

Based on the adoption of the IFTNC recommendations described below, and the research findings discussed in this section (and further in the Project Files, "Record of Decision"), the potential effects to soil disturbance and nutrition as a result of activities under the Selected Alternative are within acceptable Forest Plan and regional standards, and will not allow permanent or significant impairment of the productivity of the land.

Measures to Protect or Enhance Conditions Related to Soils

To minimize erosion and ensure compliance with State water quality standards, all road construction and timber harvest associated with the Iron Honey project will be completed using Best Management Practices, as described under Section V.A. Aquatic Resources. Tree nutrition levels in the Iron Honey project are of concern, because the majority of the activities occur on Belt series geology, which is known to produce soils low in some macronutrients, and particularly potassium. The Iron Honey FEIS treated this issue as if all timber harvest was occurring on these potassium deficient soils, and recommended implementation of all of the Intermountain Forest Tree Nutrition Cooperative (IFTNC) guidelines for conserving potassium during this project. For example, slash will remain on site over winter so nutrients such as potassium can leach from fine materials back into the soil (FEIS, page III-128). I am adopting these guidelines for this project to protect the nutrients on these sites.

I have considered the benefits of analyzing the exact status of each nutrient that may be limiting, and comparing those levels to a hypothetical critical level where trees are affected by a lack of nutrients. The process would be extremely expensive, and the results could be highly variable and inconclusive. This additional information would not change my decision to replace the Douglas fir and grand fir with white pine and larch. In fact, it lends more credence to do a species conversion back to white pine and larch, which survive in this environment better than Douglas fir, grand fir and hemlock, and is a recommended practice (Garrison-Johnston, 2001, page 13). Maps related to soil conditions (such as sensitive landtypes and potassium-deficient soils) are provided in the Project Files (Soils).

Mitigation Measures to Reduce Effects to Soils

Fine organic matter and large woody debris will be retained on the ground in harvest units and slash will remain on site long enough for nutrient leaching to occur (over winter); this is necessary for sustained nutrient recycling, especially potassium. Prescribed broadcast burns or underburns will be of low intensity so as not to destroy a site's surface organic component. The practices described above have been found to be effective in retaining nutrients on site (Intermountain Forest Tree Nutrition Cooperative, 1998; Graham et al, 1994). On units designated for tractor harvest, planned skid trails will be established to reduce overall soil compaction and displacement. In units where wood is removed for the purpose of instream enhancement work, soil attached will be removed so that a majority of the soil will be retained on site to promote revegetation. By calculating the area affected by compaction and displacement, activities can be effectively managed to restrict detrimental disturbance to 15% (FEIS, pages III-127 and III-136).

Public Concerns Related to Soils

During scoping, the Environmental Protection Agency identified specific concerns related to protection of soil resources. Eleven of the 23 comment letters received identified concerns related to the impacts the project activities would have on soils (Attachment E, Comment Letters 03, 04, 05, 06, 08, 09, 11, 13, 16, 17, and 20). As described above, the Selected Alternative has specific features designed to protect soil resources, and mitigation measures to reduce impacts to soils. Use of the BMP's will ensure protection of soil stability, and use of IFTNC guidelines, which are stricter than the Forest Plan standards and guidelines for soil, will ensure protection of soil productivity, as discussed above.

V.E. Wildlife

Wildlife Issues

► **Wildlife and their habitat:** Section 7 of the Endangered Species Act directs federal agencies to ensure that their activities are not likely to jeopardize the continued existence of any Threatened or Endangered species or result in the destruction or adverse modification to their critical habitat. A number of species have been identified as Sensitive within the geographic area of the Idaho Panhandle National Forests. Other species of wildlife are used as indicators of how well their needs for certain types of habitat are being met. During scoping, comments were received from the Environmental Protection Agency, Idaho Fish and Game, and Ecology Center identifying concerns related to protection of wildlife and associated habitat. Specific features of the alternatives were designed to address this issue, including specific measures designed to protect or enhance wildlife habitat, and mitigation measures to reduce effects of activities.

Activities Under the Selected Alternative

Under the Selected Alternative, there are no specific activities with the sole intent of improving wildlife habitat. However, the vegetative restoration activities and allocation of additional recruitment old growth will increase the amount of interior forest and improve wildlife habitat in the Iron Honey Resource Area as discussed below.

Effects to Wildlife Under the Selected Alternative

The tables below disclose whether the species warranted detailed analysis, the anticipated effect to these species, and the rationale for the effects determination. Detailed discussion of these effects is provided in the FEIS (pages II-40 and II-41, and in Chapter III, Wildlife). The modifications under the Selected Alternative do not result in any difference in the effects to wolves, bald eagles, lynx, and grizzly bear when compared to the analysis of Alternative 8 in the FEIS (pages III-154 through III-160) and Biological Assessment (Project Files, "Record of Decision"). In general, effects to wildlife as a result of the modifications to Alternative 8 are slight, as noted in the following tables.

Table 8. Effects to Threatened, Endangered and Candidate wildlife species.

Species	Effects Determination	Rationale
Grizzly bears	No effect	Due to a lack of quality habitat, grizzly bears are not likely to occur within the district, and the district is not within a recovery area for the bear.
Bald eagles	No effect	There would be a long-term improvement of watershed and fisheries habitat in the Little North Fork Coeur d'Alene River as a result of watershed restoration activities. Habitat is tied directly to large bodies of water. There are no records of bald eagle sightings in the project area. The area does provide potential bald eagle habitat that could be used for feeding and resting, primarily during migration.
Gray wolves	May affect but not likely to adversely affect	The area lacks important winter range for big game, which provides a prey base for wolves. There would be a short-term disturbance to big game, but the prey base would be maintained over the long term, with a reduction in open road densities.
Lynx	May affect but not likely to adversely affect	The area does not provide lynx habitat (due to low elevation and lack of spruce and fir habitats), and is not within any Lynx Analysis Unit (LAU). Lynx may be an infrequent visitor to the area.

Table 9. Effects to Sensitive wildlife species.

Species	Analysis and Determination	Rationale
Peregrine falcon	Not analyzed in detail; no impact anticipated.	No known active or historic eyrie within the area.
Boreal toad	Not analyzed in detail; no impact anticipated.	There are adequate design criteria to protect these toads and their habitat.
Northern leopard frog	Not analyzed in detail; no impact anticipated.	There are adequate design criteria to protect these frogs and their habitat.
Townsend's big-eared bat	Not analyzed in detail; no impact anticipated.	No activities would occur in the vicinity of the one mine adit that could provide potential habitat.
Common loon	Not analyzed in detail; no impact anticipated.	There is no suitable habitat within the area.
Harlequin duck	Not analyzed in detail; no impact anticipated.	Implementation of Inland Native Fish Strategy guidelines will insure habitat will be maintained. The transportation plan will have positive impacts upon harlequin habitat, since roads will be removed allowing for increased long-term woody debris recruitment into streams.
Goshawk	Analyzed in detail; may impact individuals or habitat but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.	As a result of modifications to Alternative 8, harvest will occur on approximately 97 fewer acres of suitable goshawk habitat. Over the long term, habitat within the 3 territories will continue to provide adequate support for one pair of goshawks in each territory (Iron Honey FEIS, p. III-163). Mitigation measures will ensure protection of the nest territory and viability of the species in the resource area.
Wolverine	Analyzed in detail; may impact individuals or habitat but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.	Wolverines are unlikely to occur in the area due to the absence of denning habitat and winter range, current high recreation use, and the presence of a security area approximately 7 miles from the resource area. There would be a reduction in road densities, which would benefit wolverine. The modifications to Alternative 8 have little effect on wolverine, since this species is wide ranging. There will be a slight reduction in displacement or disturbance potential because of fewer disturbances associated with timber harvest activities. However, wolverines will continue to be considered only a sporadic traveler through the area.
Fisher	Analyzed in detail; may impact individuals or habitat but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.	The modifications to Alternative 8 (specifically the reduction in harvest) will result in an increase of about 500 acres of late successional forest within the Iron Honey Resource Area under the Selected Alternative when compared to Alternative 8, further benefiting fisher. Above optimal levels of late successional forest habitat will be maintained to meet the needs of fisher in moderate quality drainages. Road density will be reduced. Over time, the Selected Alternative will trend the area toward more suitable habitat for fisher because of increases to near optimal levels of late successional forest habitat, riparian restoration to improve corridors for fisher, and reduced road densities.
Black-backed woodpecker	Analyzed in detail; may impact individuals or habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.	Some snag loss will occur. Adhering to measures to protect wildlife habitat, especially snag guidelines, will ensure viability of black-backed woodpeckers. The modifications to Alternative 8 would make no difference in impacts to the black-backed woodpecker.

Table 9. Effects to Sensitive wildlife species, continued.

Species	Analysis and Determination	Rationale
Flammulated owl and white-headed woodpecker	Analyzed in detail; no impact. (White-headed woodpecker analyzed in detail with flammulated owls because of habitat similarities, with same effects identified for flammulated owls.)	The area lacks habitat for flammulated owl. It is unlikely they inhabit the area. Habitat for this species will continue to be limited, primarily due to the inherent lack of ponderosa pine communities and dry Douglas-fir sites. The modifications to Alternative 8 would make no difference in impacts to the flammulated owl or white-headed woodpecker, due to the lack of habitat that could potentially be affected within the analysis area.
Coeur d'Alene salamander	Analyzed in detail, may impact individuals or habitat, but would not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.	There will be no changes to peak flows in Lewelling Creek, where known populations of Coeur d'Alene salamanders exist. The Selected Alternative will result in slight changes in stream flows in Iron Creek that could alter habitat for the salamander, but there have been no populations found in Iron Creek. Surveys will be conducted in areas of stream habitat where activities are planned to occur.

Management Indicator Species – Big Game: An elk habitat model was used to consider effects of past, current and proposed activities. Elk habitat was calculated for both Elk Habitat Units (EHU's) 2 and 10, and the Iron Honey Resource Area itself (which encompasses portions of Compartments 302, 303, 304, and 305). Elk habitat potential was modeled for Alternatives 1-7 using the Data General computer equipment available to us at that time. Alternative 8 was developed as a result of public review and comment on the DEIS, by which time we had changed to the IBM computer equipment, with an upgraded elk habitat model. It was later discovered that the new technology generated slightly different results than the earlier model, resulting in a lower level of elk habitat potential. To be able to accurately compare the Selected Alternative to the other alternatives, we looked at the results of Alternative 5 (which includes more timber harvest and road construction/reconstruction than Alternative 8) and Alternatives 2 and 7 (which include less timber harvest and road construction/reconstruction than Alternative 8). Since all three of these alternatives were determined to have a post-sale elk habitat potential of 65%, it is fair to say that the Selected Alternative would also have a post-sale elk habitat potential of 65% if we were able to run it using the old computer equipment and software (which is no longer available to us).

Under the Selected Alternative, there will be a slight increase in elk habitat potential in EHU 2 (by 2%) and in EHU 10 (by 3%) over the long term. Elk security will increase by 1,400 acres (to 4,700 acres total). The long-term transportation plan will improve the effectiveness and size of elk security areas within the Iron Honey Resource Area (FEIS, page III-178) by reducing ATV access into portions of the analysis area where there are currently no restrictions.

Management Indicator Species – Old Growth: Three species are used to monitor old growth and late successional conditions: pine marten, pileated woodpecker, and goshawk. Changes to habitat are due to harvest treatment in mature forest – no harvest will occur within allocated old growth, recruitment old growth, or stands that have the characteristics as potential old growth. Based on the habitat suitability index model, the Selected Alternative will continue to provide moderate to good forage and cover habitat for pine marten. The modifications to Alternative 8 will not change the habitat suitability for marten. The face drainages will continue to provide fair to moderate cover for the marten and moderate for quality for the marten. There will be no change in the habitat suitability for the marten over Alternative 8. Habitat for pileated woodpeckers will remain poor to fair in the Iron Creek drainage (above Rablens), moderate in the face drainages of the Little North Fork Coeur d'Alene River, and poor in Solitaire Creek drainage. The modifications would not result in any change to pileated habitat when compared to Alternative 8. Goshawks are addressed in the Sensitive species discussion, above (Table 9).

Nongame: The modifications to Alternative 8 eliminate some harvest that was designed to block up larger areas to similar age classes, so that in the long term (150+ years) this area would be a large interior forest block. While the short-term effect is a reduction in harvest and its effect on non-game species as addressed in the FEIS, the units that were dropped were adjacent to historic regeneration harvests. The edge effect of having new harvest adjacent to young stands is less than the edge effect that currently exists with mature stands adjacent to young stands. Consolidating this area into a large block of future interior forest (as under Alternative 8) is more desirable for non-game species management than retaining the fragmentation that exists in this area (as will occur under the Selected Alternative). Under the Selected Alternative, openings created by timber harvest will reduce the amount of nongame habitat for those species dependent upon older interior forests. This effect will last at least 30 years, until these stands again function as young conifer forests rather

than created openings. Reserve trees in harvest units will provide some stand structure diversity. Over the long term, nongame species will benefit from the regeneration of white pine forests in the area.

Neotropical (land) Birds: Effects to neotropical land birds are measured by the amount of newly created openings, which impacts nesting and foraging habitat for land birds. Increased openings also create more favorable habitat for cowbirds, which are nest parasites for land birds. In general, a low edge to interior habitat ratio is preferred. Therefore, a single large opening is preferred over several small openings, which have more total edge. The modifications to Alternative 8 will result in the lowest perimeter ratio of any of the action alternatives in the Iron Honey FEIS. The perimeter ratio under the Selected Alternative 8 is 94, compared to 101.5 for Alternative 8 (Project Files, "Record of Decision"). This reduction in perimeter ratio will reduce habitat for cowbird nest parasitism, which would benefit more desirable land birds. Of the action alternatives, the Selected Alternative has the lowest edge to interior habitat ratio, and will therefore have the lowest risk of cowbird parasitism and reduced land bird populations. Over the long term, the Selected Alternative will provide more interior habitat once the trees in the harvest openings grew into mature forest, enhancing the land bird habitat (FEIS, p. III-189).

Measures to Protect or Enhance Wildlife

We will reserve from harvest live leave trees in regeneration and rehabilitation areas to provide size class diversity and long-term snag recruitment. Snags will 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, which were used in the FEIS (page II-23). In proposed harvest units that currently contain quality snag densities, 2 to 4 of the largest dead trees per acre would be maintained. Exact number would depend on the levels of existing snags located adjacent to the treatment units, with the target being 4 per acre of the larger snags. Some smaller unmerchantable dead trees will also be retained to achieve the 6 to 12 snags per acre identified for these habitat types in the Snag Protocol Guidelines. There is also expected to be some recruitment of snags during underburning.

In all harvest units it is 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 will be retained on the site while on dry sites 3 to 6 logs or down trees will be retained. These logs will 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 that assure the functions of these important components are effectively protected.

The project area will be divided into at least 3 subdivisions. Activities will occur in no more than 2 subdivisions at any time, to allow the remaining subdivision(s) to provide security for big game and other wildlife during project implementation.

Under the Selected Alternative, 45 miles of currently closed roads in the Iron Honey Resource Area will be opened (29 miles with reconstruction and 16 miles with light brushing) to accomplish project activities. Gates will be installed on these roads to meet wildlife security needs during activities. Following completion of the project, these roads will be closed using physical barriers (such as earth berms). Please refer to Item 8 (Transportation) below, Attachment C, and the FEIS (Appendix F - Transportation) for additional information.

Mitigation Measures to Reduce Effects to Wildlife

Several birds of prey are identified for special protection measures on the IPNF. Two potential goshawk nest sites have been found in the Resource Area - one in the Colt Mountain area near Unit 6, and the other in the lower half of Unit 10. The lower portion of Unit 10 has been dropped from the planned activities. Additional surveys that will occur during spring rearing and fledging periods are likely to lead to discovery of the occupied nests as well as alternate nest sites. 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 measures are based on Management Recommendations for the Northern Goshawk in the

Southwestern United States (1992) and will be incorporated into timber sale packages using the appropriate timber sale contract clauses.

Public Concerns Related to Wildlife

Public comments were received expressing concern with protection of wildlife habitat (Attachment E, Comment Letters 09, 20, 21, and 22; and FEIS, Appendix A). The Selected Alternative has been designed to minimize impacts to wildlife during project activities, and will improve habitat over the long term, as discussed above. Comments from Idaho Fish and Game were used to develop an alternative that combined the watershed restoration of Alternative 6 with the vegetative restoration of another alternative (which resulted in Alternative 8), and led to design features of the Selected Alternative that will help to protect a diversity of wildlife habitats (described earlier). We have also discussed wildlife habitat needs and concerns with the US Fish and Wildlife Service, who reviewed our analysis and concurred with our determination of effects to species listed under the Endangered Species Act (Attachment D). For additional discussion, please refer to Section VIII.B. Endangered Species Act and Section IX. Consistency With the Goals of Other Agencies and the Coeur d'Alene Tribe.

V.F. Recreation

Issues

► **Recreation opportunities:** The Iron Honey Resource Area encompasses a wide variety of recreation opportunities. Management activities have the potential to disrupt activities or change access into a particular area. Existing uses and proposed activities were considered to ensure that the proposed activities would not result in a loss of opportunities over the long term. Specific features of the alternatives were designed to address this issue.

Activities Under the Selected Alternative

Under the Selected Alternative, there are no specific recreation improvement activities identified, although changes in the transportation system will affect motorized recreation opportunities, as discussed below.

Effects to Recreation Under the Selected Alternative

The modifications will create no perceivable change in the recreation analysis of effects. The Selected Alternative will not modify potential Wild and Scenic (Recreational) River segments to the degree that eligibility or classification would be affected (FEIS, page III-198). There will be no substantial effect on recreation opportunities, although harvest activities can temporarily disrupt recreation by precluding entry into a particular area or in producing dust, noise, and smoke (FEIS, page 196).

Large areas will be opened (at least temporarily) that may attract unauthorized off-road vehicle use. The large openings created by timber harvest could be favored as snow play sites by snowmobile users. Some groomed snowmobile routes will be affected as described in the table below. There are numerous other snowmobile routes in the area that are not displayed in the table because there would be no changes to those routes.

Table 10. Changes to groomed snowmobile routes, under all action alternatives.

Current Route	Change	Effect of Change
Road 794 (from its junction with Road 1560 to its junction with Road 258)	Replaced by Roads 1550 and 1560	Both routes are comparable. The new route would be superior with fewer curves and easier grooming.
Roads 794 and 1532 (connecting Horse Haven to Cascade Creek)	Replaced by Roads 2346 and 2346C (upon completion) to connect the east end of Horse Heaven airstrip with the Walker Saddle and Cascade Creek trail system	No impacts to the quality of the snowmobile trail system. The new route would be superior with fewer curves and easier grooming.

Mitigation to Reduce Effects to Recreation

Large areas will be opened (at least temporarily) that may attract unauthorized off-road vehicle use that could detrimentally affect vegetation, soils, and wildlife. These areas will be signed and monitored to discourage such use. For further discussion of this monitoring, please refer to Section V.I., Monitoring Specific to This Project.

Public Concerns Related to Recreation

Although there were no specific comments related to protection or improvement of recreation opportunities, there were comments related to the effects of roads and trails that provide motorized recreation opportunities (Attachment E, Comment Letters 18 and 22). The Selected Alternative will have little effect on recreation in the area, with the exception of the changes to the transportation system as discussed earlier in this section.

V.G. Scenery

Scenery Issues

► **Scenic values:** Management activities have the potential to change the scenic character surrounding the project area. Visual quality objectives are used to identify and manage effects to scenic values in the National Forest. Specific features of the alternatives were designed to address this issue.

Activities Under the Selected Alternative

Under the Selected Alternative, there are no specific activities identified related to scenery, although vegetation restoration activities will have short-term effects to scenery, as discussed below.

Effects to Scenery Under the Selected Alternative

As originally designed, Alternative 8 would have substantial impact to the visual condition of the area, with large regeneration harvest units visible from both primary travelways, as well as several other less sensitive viewpoints. Mitigation measures have been designed (described below) that will reduce the effects to the visual condition of the area under the Selected Alternative. With implementation of the mitigation measures, the Selected Alternative will be consistent with Forest Plan standards for visual quality (FEIS, pages III-201 and III-202).

Mitigation to Reduce Effects to Scenery

New harvest units will incorporate the tree lines of existing plantations as much as possible to reduce the "edge" effects that tree-line unit boundaries have on the scenery. Foreground views from key visual points on Road 209 will need to be protected with tree screens or unit boundary set backs. The primary objective is that most of the units are not seen from the road or campsites along the Little North Fork Coeur d'Alene River.

Public Concerns Related to Scenery

There were no specific comments related to protection or improvement of scenic resources.

V.H. Financial Considerations

Financial Issues

► **Financial considerations:** The proposed activities have associated costs as well as the potential to generate revenues. During scoping, public comments (from the Idaho Fish and Game and the Ecology Center) indicated concerns with the financial aspects of the proposal, specifically the concept of generating funds for restoration through timber harvest. Alternative design both affects and is affected by financial

considerations. As alternatives were developed, economic feasibility was a consideration, but was not the sole driver in development of any alternative.

Activities Under the Selected Alternative

Although the commercial timber harvest that will occur under the Selected Alternative is designed to restore forest vegetation, there will be the added benefit of enhancing the local and state economy through employment and tax revenues, and generating revenues that can be used to fund additional restoration activities, as discussed below.

Effects to Financial Considerations Under the Selected Alternative

Commercial sale of timber harvested as part of the vegetation restoration activities will contribute to the continuing operation of local mills, directly and indirectly enhancing the local and state economy through employment and tax revenues. The economy will be further enhanced through employment created by restoration work outside of the timber sale contracts. A comparison of commercial timber volume under each alternative is provided in Tables 1 and 12. An appraisal and financial efficiency of the alternatives was used to compare estimated financial effects (FEIS, page III-207, and Project Files, "Record of Decision").

Modification of Alternative 8 by dropping all or parts of harvest units affected several aspects of the financial analysis. In some ways the modifications reduced costs - for example, the reduction in the amount of vegetation restoration also reduced the amount of temporary road construction. In other ways, the modifications reduced the estimated value of the timber to be harvested, due to the reduced volume and average diameter of trees to be harvested. The amount of aquatic improvement work proposed under the Selected Alternative is the same as was presented under Alternative 8 in the FEIS (page II-19).

How the activities are implemented both affects and is affected by the method of contracting. One option for implementation is the use of a stewardship contracting, which gives the Forest Service the opportunity to initiate timber sales while integrating other elements into the service contract, such as watershed restoration, wildlife and fisheries habitat restoration, noxious weed control, road/trail maintenance or reclamation, fuel reduction, prescribed burning, and thinning to improve forest health. In the context of the Iron Honey project, we have identified harvest units in the Iron Creek drainage that we plan to offer in exchange for watershed restoration services, including culvert removal, road obliteration, and in-stream restoration activities. By accomplishing some of the watershed and vegetative work through a stewardship contract, we can still have a good portion of the watershed restoration and site preparation (fuels reduction) work done by the purchaser, and done sooner than if we had to wait to generate timber sale funds to pay for the work. For additional discussion of stewardship contracting, please refer to Section XI, Implementation.

Public Concerns Related to Financial Considerations

Public comments received during review of the DEIS indicate concern that watershed restoration activities could be funded by money generated through the harvest and sale of timber (FEIS, Appendix A, Comment Letters 06 and 10). The Selected Alternative is designed to accomplish the work necessary to restore watersheds (both aquatic and vegetative resources), reduce risks related to fires and fuel concentrations, and increase the amount of old-growth habitat. We will accomplish those activities through whatever funding is available to us – whether appropriate funds, funds generated through commercial timber sales, use of stewardship contracting, etc. We are not cutting the timber to generate funds, but will use the funds generated to accomplish much-needed work.

V.I. Monitoring

This decision incorporates monitoring of the Inland Native Fish Strategy (USDA Forest Service, 1995), Best Management Practices, and other Forest Plan standards described in the FEIS (Section 2.6.11 Monitoring and Appendix C – Monitoring"). Monitoring will occur to ensure we've implemented activities as we said we would (implementation monitoring), that the activities are having the level of effects that we predicted (effectiveness monitoring), and that the long-term effects are as anticipated (trend monitoring).

Forest Plan Monitoring

The Forest Plan documents a system to monitor and evaluate Forest activities. 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 in the Iron Honey Resource Area, the Selected Alternative will comply with specific monitoring requirements identified by the Forest Plan (Forest Plan, Chapter IV).

Forest Corporate Monitoring

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 ecosystem conditions identified in the following table have been selected for long-term monitoring. The analysis for each project considers project-related changes to these conditions and anticipated changes are described in project environmental analysis documentation. The following table displays the anticipated project related changes to these conditions.

Table 11. Anticipated project related changes to ecosystem conditions.

Ecosystem condition	Core data to be Monitored	Rationale
Hydrologic integrity	Road density	Because of the obliteration of numerous roads with the selected alternative, total road density decreases from 8.6 to 1.7 miles of road per square mile of land. In addition, 3.6 miles of stream-encroaching roads are removed, allowing the stream to access additional flood plain that was previously interrupted by the road prism.
Wildlife security and public access	Open road density	Roads that are closed in the selected alternative will reduce open road density from 2.5 to 1.4 miles of road per square mile of land.
Water yield	Hydrologic openings (equivalent clearcut acres, or ECAs)	There will be approximately 1,408 acres of shelterwood harvest under the Selected Alternative, accounting for an increase of 939 ECAs over the short term. WATSED modeling predicts the highest increase in water yields at the tributary scale will occur in Iron Creek (11% increase, which is 4% over the No-Action Alternative). However, these effects cannot be detected at scales larger than that of the tributary, due to the natural variability of water yields at these larger scales and the limited increase in water yields for the project.
Changes in forest structure outside HRV	Forest structure by size and age class groups	The harvest, to accommodate the planting of white pine and larch, reduces mature structural stage (primarily Douglas fir, grand fir and hemlock) by about 1 percent with Alternative 8-modified. However, allocated old growth would not be harvested, nor would stands that potentially meet minimum criteria for old growth. The planted early seral species are less susceptible to root disease than Douglas-fir and grand fir, so these stands would also be more likely to provide a long-term improvement in stand structure and resiliency to native pathogens.
Changes in species composition outside HRV	Forest composition by forest cover type group	The proposed changes in species composition from Douglas-fir and grand fir to more resilient and thus more desirable white pine and larch would occur at the time of planting in harvested stands. We would expect these seral species to be managed throughout the life of the stand and they would therefore be more likely to provide the desired mature and old growth structure more resilient to environmental factors than Douglas-fir, hemlock and grand fir.
Habitat loss and species decline	TES dry and moist/cold site habitat restoration	No changes to dry or moist/cold sites are expected as a result of this project.
Changes in landscape pattern	Landscape pattern indicators (mean patch size and variability, edge density, etc.)	As modified, Alternative 8 still blocks up additional acres of old forest structure, reducing fragmentation in that forest type. However, early seral vegetation remains interspersed with mature forest, retaining the fragmented nature of this area in the Iron Creek drainage. With the exception of Alternatives 1 and 6 (which would not create any new openings in the canopy), Alternative 8 has the lowest edge to interior habitat ratio.

Monitoring Specific to This Project

Vegetation: All regeneration units will be monitored to ensure regeneration is complete in 5 years in compliance with NFMA requirements. All intermediate treatments will be monitored to assess achievement of prescription objectives.

Aquatic Resources: Best Management Practices (BMP) implementation and effectiveness monitoring will be documented on ten percent of all units, road miles, and road channel crossings associated with the Selected Alternative. The distribution of the units will be determined during sale activities. Criteria for selecting units, road miles, and channel crossings will be hillslope erosion sensitivity and the likelihood for channel damage. Implementation monitoring will be performed on all watershed and fisheries restoration projects. Detailed monitoring of the effectiveness of the watershed/fisheries restoration work will be performed in and documented for the Iron Honey watersheds. Selected headwater reaches will be evaluated for hillslope and headwater channel restoration opportunities.

The effectiveness of the Best Management Practices will be monitored during the harvest activity and for years one and three following completion of harvest activity. The greatest risk for hillslope erosion and channel damage resulting from the harvest activities will occur within three years and will be monitored closely. Complete data sets for the lower 2.9 and 3.8 miles of Iron Creek and the Little North Fork Coeur d'Alene River, respectively, will be collected during years one, five and ten following completion of proposed activities. The purpose of monitoring over a ten-year period is to ensure that the restoration work is functioning as designed and to evaluate whether a trend toward the desired condition has been initiated or accelerated. Several types of information are already being collected as part of the watershed monitoring for the Iron Honey project (FEIS, Appendix C). Streamflow data is being monitored with horizontal staff and crest gauges in Iron and Tom Lavin Creeks. These two drainages were selected because they are very similar in drainage area, elevation, and precipitation, providing a good comparison base - under the Selected Alternative, Tom Lavin will have limited management activity, while substantial activity will occur within the upper Iron Creek drainage.

An electronic chart drive gauging station is being set up in the Upper North Fork Little Coeur d'Alene River near the junction of Roads 206 and 209. This instrument records stream flow every 15 minutes, and will be used to establish a hydrograph for the portion of the river upstream from the gauge. Data will be collected before, during and after implementation of the project activities. Cross sections and longitudinal profiles have already been completed in the Iron Honey Resource Area, and will be used to monitor channel characteristics. Fish habitat and woody debris surveys were also conducted in longitudinal profile areas. Fish snorkeling surveys were conducted to estimate fish numbers; these surveys can be repeated to track fish abundance in the project area. Additional discussion of monitoring related to aquatic resources (including ongoing monitoring) is provided in the FEIS, Appendix C.

Recreation: Under the Selected Alternative, large areas will be opened (at least temporarily) that may attract unauthorized off-road vehicle use (FEIS, page III-196). The large openings created by timber harvest could be favored as snow-play sites by snowmobile users. Therefore, harvested areas will be signed to discourage off-road use, and monitored to prevent the undesirable effects of such use.

VI. Comparison of Activities and Effects Under Other Alternatives

The following table identifies activities proposed under each alternative. The No-Action Alternative (Alternative 1) is not displayed in the table, because none of the proposed activities would occur. Following the table, a very brief comparison of effects is provided for each resource (additional comparison is provided in Section 2.7 of the FEIS). Refer to Section IV, Rationale for My Decision, for a summary of the reasons I selected Alternative 8 (with modifications) for implementation instead of one of the other alternatives. For a comparison of Alternative 8 as analyzed in the FEIS and the Selected Alternative, please refer to Table 1 at the beginning of this decision document.

Table 12. Summary Comparison of Management Activities Under Each Alternative.

Feature	Alt. 2	Alt. 3	Alt. 5	Alt. 6	Alt. 7	Selected Alternative
Watershed recovery treatments						
Miles of roadbed recontoured (obliterated)*	49	8	39	147	49	76
# of channel crossings removed	117	10	76	335	113	176
# of culverts upgraded	7	45	51	38	30	21
Miles of stream stabilization work	0	0	3	5	0	5
Proposed harvest (acres)						
Clearcut w/ Reserve Trees	0	190	680	0	40	0
Commercial Thinning	0	140	140	0	140	0
Shelterwood Harvest	1,100	0	3,520	0	1,100	1,408
Selective (for instream use)	0	0	0	380	0	230
Total acres of harvest proposed	1,100	330	4,340	380	1,280	1,638
Planting (white pine/western larch)	1,100	190	4,200	0	1,100	1,408
Yarding systems (acres)						
Skyline	900	130	3,800	0	920	1,297
Tractor	200	70	400	380	220	111
Helicopter	0	140	140	0	140	0
Estimated timber harvest volume*						
Cunits (hundreds of cubic feet)	29,600	8,100	98,700	0	33,600	37,100
Million board feet (MMBF)	14.8	3.4	45.7	0	16.2	17.5
Proposed Road Work (Miles)						
Permanent road construction	0.2	0	0.2	0.2	0.2	0.2
Temporary road construction	0.5	0.3	14	0.5	0.5	2.0
Road reconstruction	23	28	58	0	37	29
Additional acres of allocated recruitment old growth	1,380	0	800	1,380	800	1,380
Fuel treatment (underburning)	1,100	192	4,200	0	1,140	986

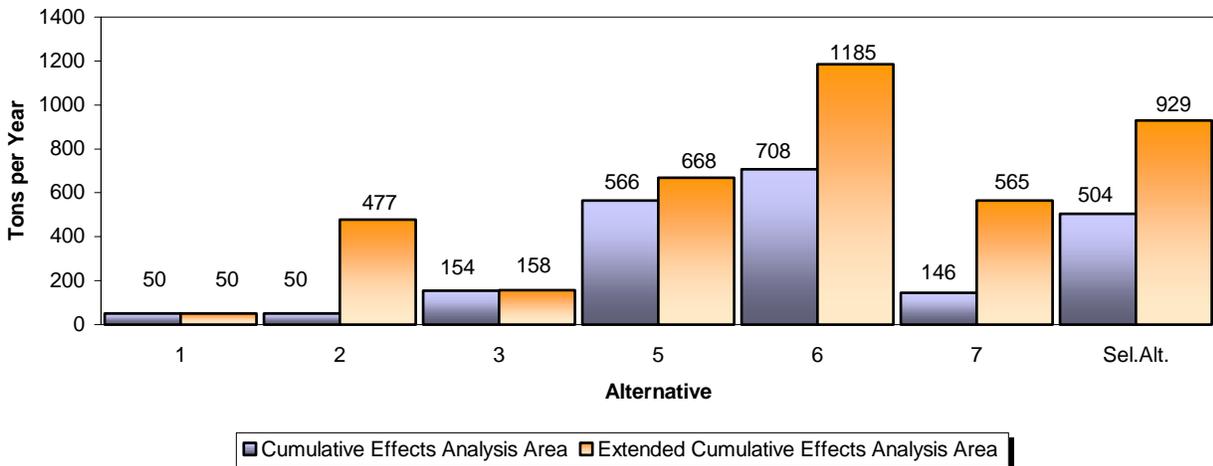
* Includes Levels 1 and 2 road obliteration and Level 2 riparian road obliteration, described in the FEIS, page II-19.

VI.A. Comparison of Effects to Aquatic Resources by Alternative

Sediment yield: Under all alternatives except Alternative 5, potential exists for an increase in sediment or delay of watershed recovery, but the increase would not be measurable. There is slight potential that Alternative 5 would result in a measurable increase in sediment or delay of watershed recovery (FEIS, page II-30).

Sediment delivery risk: As displayed in the following graph, sediment delivery risk would be reduced the most under Alternative 6, followed by the Selected Alternative.

Figure 6. Comparison of reduction in sediment delivery risk.



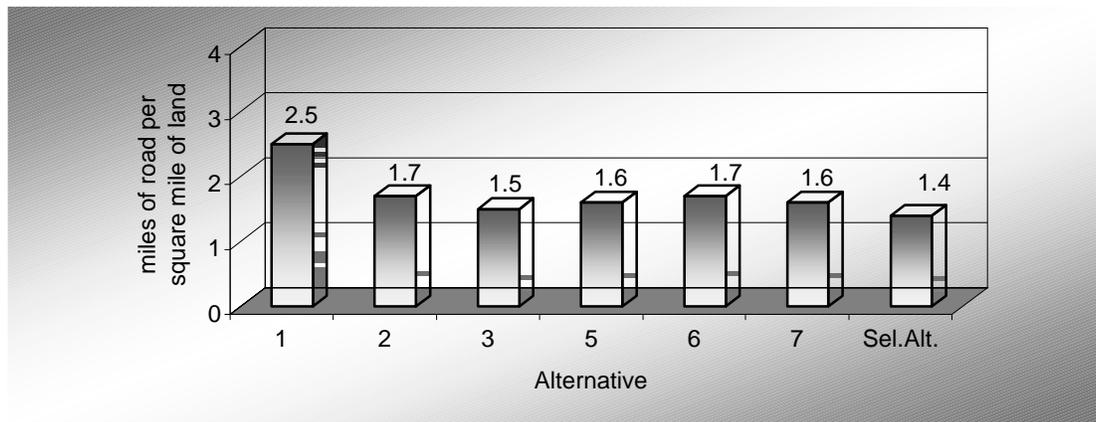
Stream crossings: Table 12 (Summary Comparison of Management Activities Under Each Alternative) provides a comparison of the number of stream crossings that would be removed under each alternative. Alternative 6 would remove the highest number of crossings, followed by the Selected Alternative. The No-Action Alternative would not remove any stream crossings, increasing over time the probability that these crossings will fail, contributing additional sediment to the stream.

Peak flow: Under all alternatives except Alternative 5, potential exists for an increase in peak flow or delay of watershed recovery, but the increase would not be measurable. Under Alternative 5, there is slight potential that there would be a measurable increase in peak flow or delay of watershed recovery.

Net decrease in roads: The following graph compares open road density following completion of project activities (refer also the FEIS, Appendix F). Since none of the watershed restoration activities would occur, the No-Action Alternative would have the highest open road density. The Selected Alternative will result in the lowest open road density.

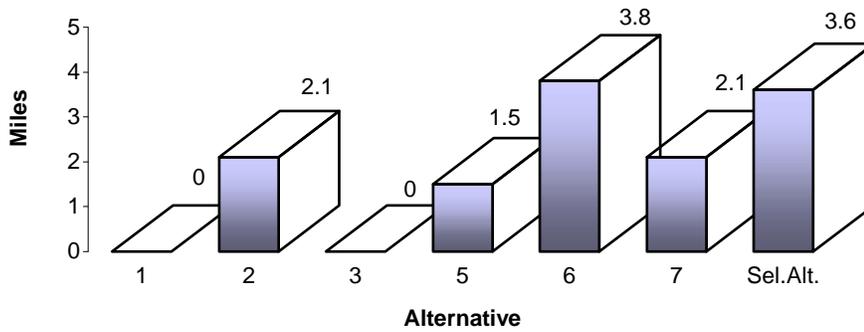
There are currently a total of 288 miles of road within the Iron Honey Resource Area (Attachment C). After implementation of the Selected Alternative, 47 miles will remain open to the public and 12 miles will be available for stand tending (a total of 59 miles). Under the Selected Alternative, we will obliterate 76 miles of road (including 1 mile of riparian road). This will leave 153 miles of road that is not needed for the long-term transportation system but not a high priority for watershed restoration work. These 153 miles of road will be considered classified roads that are in “long-term storage,” and not included in the miles available to the public. Refer to Attachment C for additional discussion of the Iron Honey project area transportation system.

Figure 7. Comparison of open road density after completion of project activities.



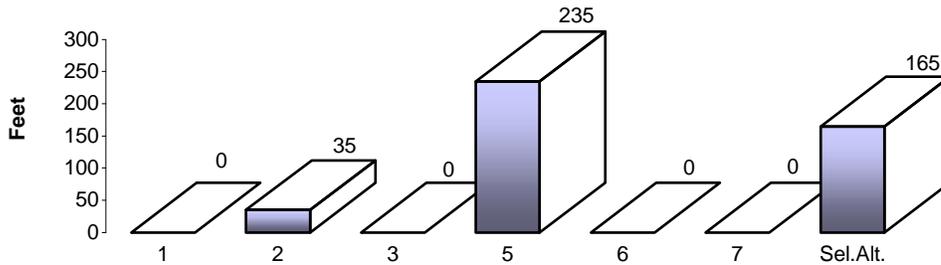
Reduction in encroaching road miles: The following graph compares the reduction of road miles that are encroaching on streams, by alternative. There would be a net reduction in encroaching road miles under all alternatives except the No-Action Alternative and Alternative 3. Alternative 6 would provide the most reduction, followed closely by the Selected Alternative.

Figure 8. Comparison of net reduction in encroaching road miles.



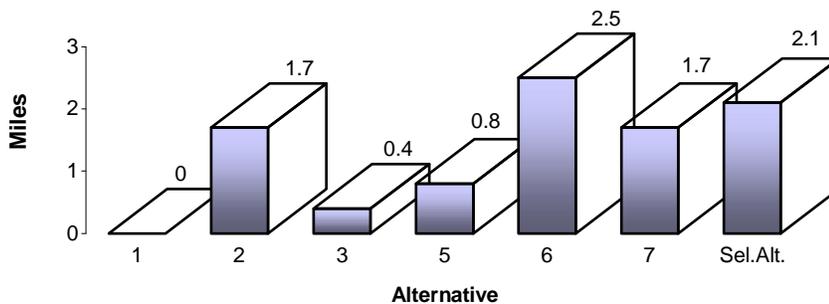
Removal of vegetation along streams: The following graph compares the amount of streamside area that will have vegetation removed during implementation of activities under each alternative. For perspective, there are just over 78 miles (approximately 414,000 feet) of streams in the Iron Honey Resource Area.

Figure 9. Comparison of maximum distance of vegetation removal along streams (within Riparian Habitat Conservation Areas).



Increased fish passage: The following graph provides a comparison of the additional miles of fish passage under each alternative. All alternatives except the No-Action Alternative would increase fish passage to some degree. The greatest increase would occur under Alternative 6, followed by the Selected Alternative.

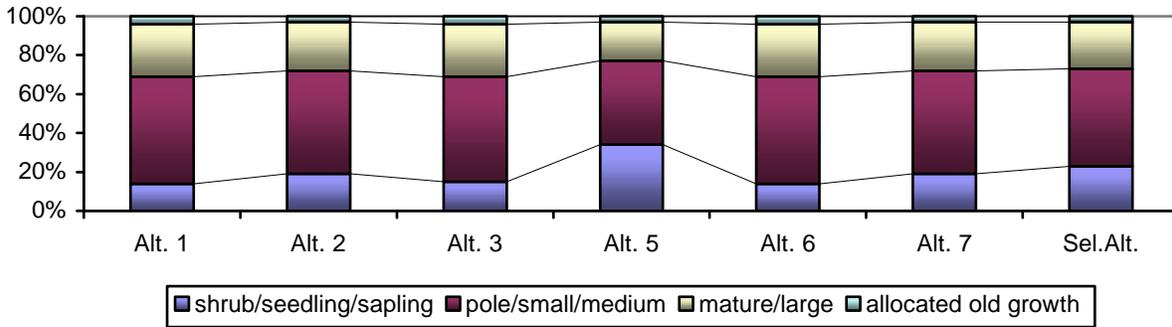
Figure 10. Comparison of increased fish passage.



VI.B. Comparison of Effects to Vegetation by Alternative

Forest structural stages: Structural stages categories are based on stand age and tree size class, as discussed in the FEIS (page II-36). The desired condition is to have a fairly even distribution between the four stages. As displayed in the following graph, Alternative 5 would provide the greatest trend toward this balance, followed by the Selected Alternative.

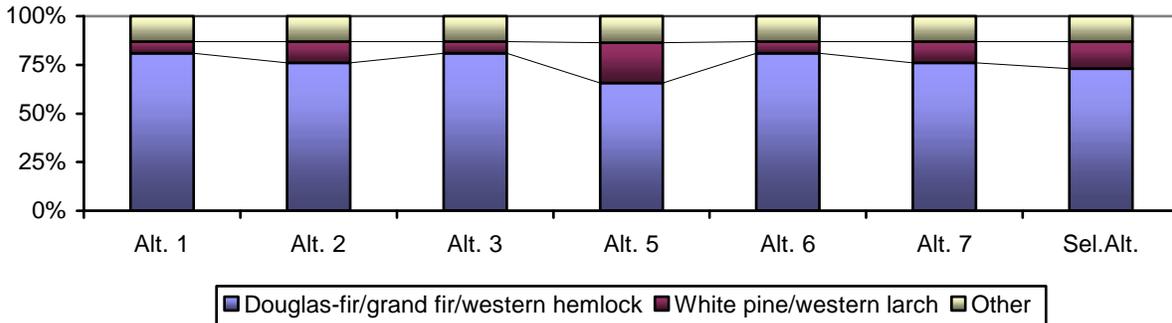
Figure 11. Comparison of changes to structural stages in the Iron Honey Resource Area.



Stands meeting old growth criteria have been allocated for management as old growth. No harvest will occur within allocated old growth stands. The only change to old growth will be in the amount of additional recruitment old growth allocated, as displayed in Table 12 (Summary Comparison of Management Activities Under Each Alternative).

The following graph depicts the changes to cover types that would occur in the Iron Honey Resource Area under each alternative. The desired condition would be to have a greater percent of stands in the hardier white pine and western larch cover types than in the Douglas-fir, grand, fir and western hemlock (or other) stands. Alternative 5 would provide the greatest trend toward this distribution, followed by the Selected Alternative.

Figure 12. Comparison of cover types in the Iron Honey Resource Area under each alternative.



VI.C. Comparison of Effects to Fire/Fuels by Alternative

The current trend of increased fine fuels (such as grasses and shrubs), new understory trees serving as ladder fuels, and continuing accumulation of heavy fuels from down logs and snags would continue under Alternatives 1 and 6, since there are no fuels reduction activities or changes in forest species to interrupt this trend.

Under all of the other alternatives, harvest of fir and hemlock, underburning in harvest units, and replanting with white pine and larch would begin a trend toward reduced potential wildfire intensity and severity (please refer to Table 12 for the amount of activity under each alternative). Road closures would likely reduce firefighting efficiency and increase the amount of time for initial attack of a fire, although the closures may also slightly reduce human-caused fires due to the reduced access.

VI.D. Comparison of Effects to Soils by Alternative

Under the action alternatives, disturbances to soil would occur primarily in areas of road construction and in tractor-yarded units with skid trails (FEIS, page II-39). Minor disturbances would occur in skyline and cable-yarded units, and where fire lines are mechanically constructed around units. Alternative 5 would affect soils on the highest number of acres, followed by the Selected Alternative (Section V.D., and FEIS, page II-39).

However, as a result of implementation specific measures to protect soils (described below), soil productivity would not be compromised beyond Forest Plan soil quality standards under any alternative.

VI.E. Comparison of Effects to Wildlife by Alternative

Table 13. Effects to Threatened, Endangered and Candidate wildlife species.

Species	Effects Determination	Rationale
Grizzly bears	No effect under any alternative.	Due to a lack of quality habitat, grizzly bears are not likely to occur within the district, and the district is not within a recovery area for the bear.
Bald eagles	No effect under any alternative.	There would be a long-term improvement of watershed and fisheries habitat in the little North Fork Coeur d'Alene River as a result of watershed restoration activities (to varying degrees under the alternatives). Habitat is tied directly to large bodies of water. There are no records of bald eagle sightings in the project area. The area does provide potential bald eagle habitat that could be used for feeding and resting, primarily during migration.
Gray wolves	No effect under Alternative 1; may affect but not likely to adversely affect under any action alternative	The area lacks important winter range for big game, which provides a prey base for wolves. Under the action alternatives, there would be a short-term disturbance to big game, but the prey base would be maintained over the long term, with a reduction in open road densities.
Lynx	No effect under Alternative 1; may affect but not likely to adversely affect under any action alternative	The area does not provide lynx habitat (due to low elevation and lack of spruce and fir habitats), and is not within any Lynx Analysis Unit (LAU). Lynx may be an infrequent visitor to the area.

Table 14. Effects to Sensitive wildlife species.

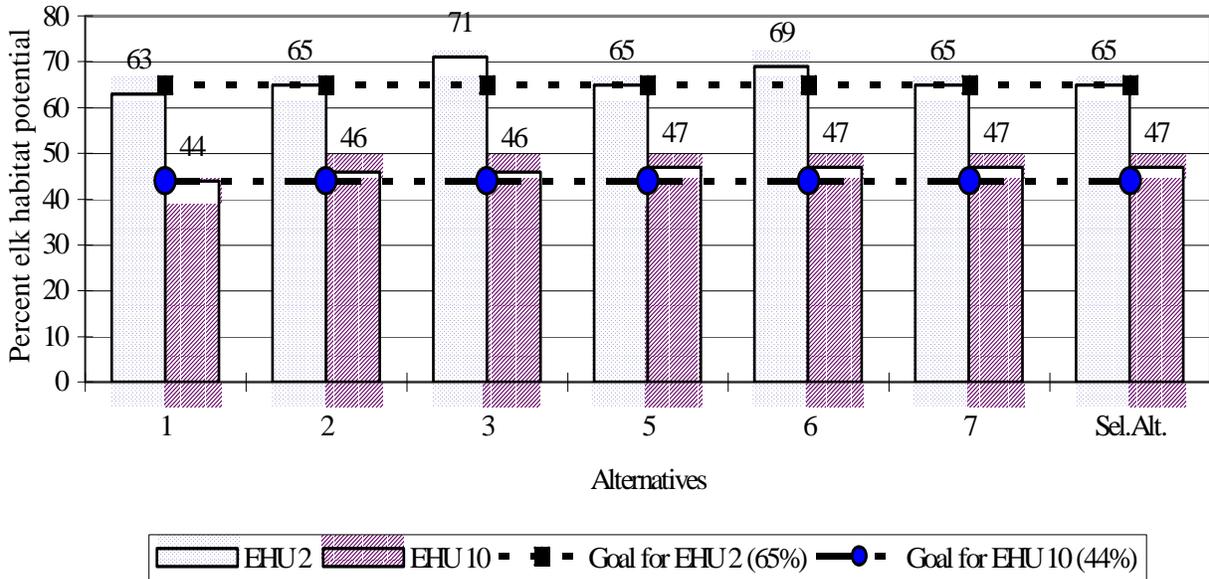
Species	Analysis and Effects Determination	Rationale
Peregrine falcon	Not analyzed in detail; no impact anticipated.	No known active or historic eyrie within the area.
Boreal toad	Not analyzed in detail; no impact anticipated.	There are adequate design criteria to protect these toads and their habitat.
Northern leopard frog	Not analyzed in detail; no impact anticipated.	There are adequate design criteria to protect these frogs and their habitat.
Townsend's big-eared bat	Not analyzed in detail; no impact anticipated.	No activities would occur in the vicinity of the one mine adit that could provide potential habitat.
Common loon	Not analyzed in detail; no impact anticipated.	There is no suitable habitat within the area.
Harlequin duck	Not analyzed in detail; no impact anticipated.	Implementation of Inland Native Fish Strategy guidelines will insure habitat will be maintained. The transportation plan would have positive impacts upon harlequin habitat, since roads would be removed allowing for increased long-term woody debris recruitment into streams.
Goshawk	Analyzed in detail; all alternatives may impact individuals or habitat but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.	No short-term effects to nesting territories under Alt. 1. Over the long term, all three territories would have sufficient nest and foraging habitat to support nesting goshawks under all action alternatives. Implementation of mitigation measures would ensure goshawk viability in the area.
Wolverine	Analyzed in detail; all alternatives may impact individuals or habitat but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.	Wolverines are unlikely to occur in the area due to the absence of denning habitat and winter range, current high recreation use, the presence of a security area approximately 7 miles from the resource area. There would be a reduction in road densities under all action alternatives.
Fisher	Analyzed in detail; all alternatives except Alt. 5 may impact individuals or habitat but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species. Alt. 5 would impact individuals or habitat with a consequence that the action may contribute to a trend toward Federal listing or loss of viability.	With the exception of Alt. 5, the action alternatives would maintain above optimal levels of late successional forest habitat to meet the needs of fisher in moderate quality drainages. All would reduce road density. Over time, Alternatives 2, 6, 7 and the Selected Alternative would trend the area toward more suitable habitat for fisher because of increases to near optimal levels of late successional forest habitat, riparian restoration to improve corridors for fisher, and reduced road densities. Alt. 6 would be the most beneficial to fisher because stands would be allowed to age.. Alt. 5 would reduce late successional habitat, considered a significant impact.

Table 14. Effects to Sensitive wildlife species, continued.

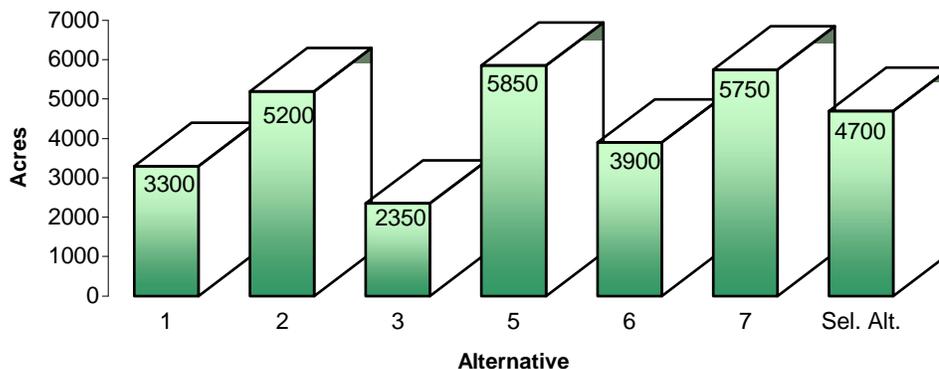
Species	Analysis and Effects Determination	Rationale
Black-backed woodpecker	Analyzed in detail; all alternatives may impact individuals or habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.	Some snag loss would occur. Adhering to measures to protect wildlife habitat, especially snag guidelines, would ensure viability of black-backed woodpeckers under all alternatives.
Flammulated owl	Analyzed in detail; all alternatives except Alt. 5 would have no impact. Alt. 5 may impact individuals or habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.	The area lacks habitat for flammulated owl. It is unlikely they inhabit the area. Under any alternative, habitat for this species would continue to be limited, primarily due to the inherent lack of ponderosa pine communities and dry Douglas-fir sites. Only Alternative 5 would actually reduce habitat through shelterwood harvest. However, over the long term, these thinned stands could trend toward a larger-diameter larch, which could slightly improve habitat for flammulated owls.
White-headed woodpecker	Analyzed in detail with flammulated owls because of habitat similarities, with same effects identified for flammulated owls.	Refer to rationale for flammulated owls.
Coeur d'Alene salamander	Analyzed in detail, all alternatives may impact individuals or habitat, but would not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.	There would be slight changes in peak flow. There is slight risk of currently unidentified populations that could be destroyed during stream restoration activities. There is potential for unidentified habitat in other streams.

Management Indicator Species – Big Game: Implementation of any alternative (including No-Action) would result in similar post-sale elk habitat potential values. There would be slight increase in elk habitat potential in EHU's 2 and 10 (Compartments 302, 303, 304 and 305) under all action alternatives over the long term. The following graphic compares the percent elk habitat potential for the Elk Habitat Units. A comparison of wildlife security is also provided.

Figure 13. Comparison of elk habitat potential in each elk habitat unit following completion of all project activities.



The long-term transportation plan will improve the effectiveness and size of elk security areas within the Iron Honey Resource Area (FEIS, page III-178) by reducing ATV access into portions of the analysis area where there are currently no restrictions.

Figure 14. Post-sale acres of elk security for the total analysis area.

Management Indicator Species – Old Growth: Based on the habitat suitability index model, all alternatives would continue to provide moderate to good forage and cover habitat for pine marten. Under all alternatives, habitat for pileated woodpeckers would remain poor to fair in the Iron Creek drainage (above Rablens), moderate in the face drainages of the Little North Fork Coeur d'Alene River, and poor in Solitaire Creek drainage. Goshawks are addressed in the Sensitive species discussion, above (Table 13).

Nongame: Under the No-Action Alternative, the current trend in vegetation changes would continue. Wildlife species associated with white pine and larch forests would remain far below historic levels over the long term. Tree mortality due to root diseases would continually add to snags and downed log recruitment. Stands previously planted to white pine, western larch and ponderosa pine would continue to be tended to provide mature stands of these species. Under Alternatives 2, 3, 7, and the Selected Alternative, openings created by timber harvest would reduce the amount of nongame habitat for those species dependent upon older interior forests. This effect would last at least 30 years, until these stands again function as young conifer forests rather than created openings. Reserve trees in harvest units would provide some stand structure diversity. Over the long term, nongame species would benefit from the regeneration of white pine forests in the area. Under Alternative 3, the small openings created through harvest are unlikely to successfully regenerate to white pine or larch, and would therefore not contribute to interior forest habitat. The area would not trend toward historical conditions for nongame species under this alternative.

Under Alternative 5, there would be significant short-term impacts on nongame species due to the loss of mature and old forests (but not allocated old growth), loss of interior habitat, and loss of snags. Over the long-term, the regeneration of healthy long-lived seral species could benefit nongame wildlife if the stands were allowed to realize the full benefits of the vegetation restoration (a period of at least 50 years). Riparian restoration would improve nongame wetland habitat. Additional recruitment old growth would provide large diameter trees, snags and downed logs over time. Creating large harvest units would provide interior forest habitat in 80 to 100 years.

Alternative 6 would have very slight short-term impacts on nongame species, primarily from harvest for the instream wood, and the short-term disturbance during riparian habitat restoration. The project would benefit nongame species over the long-term by reducing roads through wetland systems, and due to natural processes that would lead to increased large diameter trees, snags and downed logs.

Neotropical (land) Birds: There would be no change to habitat for neotropical birds under Alternatives 1 or 6, because neither would create new openings in the canopy (harvest under Alternative 6 would use a selective harvest method that removes individual trees and would not result in canopy openings). The alternative most likely to increase cowbird nest parasitism and reduce land bird populations is Alternative 5 (to the extent that there would be a risk to viability of land birds over the short term), followed by Alternatives 7, 2, 3 and the Selected Alternative. The Selected Alternative has the lowest edge to interior habitat ratio, and would therefore have the lowest risk of cowbird parasitism and reduced land bird populations. Over the long term, Alternatives 2, 5, 7 and the Selected Alternative would provide more interior habitat once the trees in the harvest openings grew into mature forest, enhancing the land bird habitat (FEIS, p. III-189).

VI.F. Comparison of Effects to Recreation by Alternative

None of the alternatives would modify potential Wild and Scenic (Recreational) River segments to the degree that eligibility or classification would be affected. Under Alternative 1, the current level of recreation management would continue. None of the action alternatives would have a substantial effect on recreation opportunities. The overall effects of timber harvest activities are primarily to the scenic environment. Harvest activities can temporarily disrupt recreation by precluding entry into a particular area or in producing dust, noise, and smoke.

Under Alternatives 2, 5, 7 and the Selected Alternative, large areas would be opened (at least temporarily) that may attract unauthorized off-road vehicle use. The large openings created by timber harvest could be favored as snow play sites by snowmobile users. Under all action alternatives (including Alternative 6), some groomed snowmobile routes would be affected; these would be the same as described in Table 10 (Section V.F).

VI.G. Comparison of Effects to Scenery by Alternative

Under Alternative 1, there would be no short-term effects to the scenic resources because no harvest activities would occur. Past harvest units would continue to recover tree growth, muting the visual effects of unnatural-shaped openings. Over the long term, the increasing vulnerability of the area to wildfire could bring change to the scenic condition. Under Alternatives 2, 3, and 7, none of the harvest units would be visible from the two primary travelways (Road 209 along the Little North Fork Coeur d'Alene River and the Chilco Mountain National Recreation Trail), although some may be visible from less sensitive viewpoints. Alternative 5 and (to a lesser extent) the Selected Alternative would have substantial impact to the visual condition of the area, with large regeneration harvest units visible from both primary travelways, as well as several other less sensitive viewpoints. However, with implementation of specific mitigation measures, these alternatives would be consistent with Forest Plan standards for visual quality (FEIS, page III-201 and III-202).

VI.H. Comparison of Effects to Financial Considerations

A comparison of commercial timber volume under each alternative is provided in Table 12 (Summary Comparison of Management Activities Under Each Alternative). An appraisal and financial efficiency of the alternatives was used to compare estimated financial effects (FEIS, page III-207), and Project Files, Record of Decision). Commercial sale of timber harvested as part of the vegetation restoration activities under all action alternatives except Alternative 6 would contribute to the continuing operation of local mills, directly and indirectly enhancing the local and state economy through employment and tax revenues. The economy would be further enhanced through employment created by restoration work outside of the timber sale contracts. Alternative 6 does not include any commercial timber harvest, so accomplishment of the watershed restoration work would be dependent upon appropriated funding, grants, or other similar funding sources.

VII. Identification of the Environmentally Preferable Alternative

The Council on Environmental Quality defines the "environmentally preferable alternative" as "the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves and enhances historic, cultural and natural resources," (Council on Environmental Quality – Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, page 4).

In the short-term, Alternative 6 (the watershed restoration-only alternative) would best meet the definition because it would provide the greatest reduction in stream crossings, sediment, and road miles, and greatest increase in fish passage. There would be none of the effects of timber harvest that would occur under other alternatives. However, Alternative 6 would do nothing to restore vegetative health, so over the long term there would be a continued trend of declining conditions in the watershed. In addition, the restoration activities under Alternative 6 would be dependent upon Congressional appropriations for funding. Based on past and present budget allocations, it is highly unlikely that funding would be available to implement Alternative 6.

The Selected Alternative will also improve short-term conditions in the Resource Area by reducing stream crossings, sediment, and road miles while increasing fish passage, although not to the same extent as Alternative 6. However, over the long term, the Selected Alternative will best address the combination of aquatic restoration needs **and** the vegetation restoration needs we have identified, and provide the financial means to accomplish our objectives better than any other alternative. Therefore, **the Selected Alternative (Alternative 8 with modifications), is the environmentally preferable alternative.** For further discussion, please refer to Section I.V., Rationale for My Decision.

VIII. Findings And Consistency With Laws, Regulations And Policy

Numerous laws, regulations and agency directives require that my decision be consistent with their provisions. I have determined that my decision is consistent with all laws, regulations and agency policy. The following summarizes findings required by major environmental laws.

VIII.A. National Environmental Policy Act

As described in the EIS (page II-2), 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 Iron Honey 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.

The project team used the “Federal Guide to Watershed Analysis – Environmental Analysis at the Watershed Scale” to focus on proposed activity areas, describe current conditions, and identify possible treatment alternatives (EIS, page II-9; Project Files, “Alternative Development”).

A total of seven alternatives were considered in detail, including a no-action alternative as required by NEPA and NFMA (EIS, page II-9); an additional three alternatives were briefly considered but eliminated from further study (EIS, page II-10). The range of alternatives is appropriate given the scope of the proposal and the purpose and need for action (EIS, pages I-1 through I-5).

VIII.B. Endangered Species Act (ESA)

The Coeur d'Alene River District Wildlife Biologist, Fisheries Biologist, and Botanist evaluated Alternative 8 in regard to Threatened and Endangered wildlife, fish and plant species. Findings are disclosed in the EIS (Chapter III) and summarized in the Biological Assessments and Biological Evaluations (Project Files). They reviewed their findings based on the identified modifications to Alternative 8. The following briefly describes their findings based on implementation of Alternative 8 as modified:

- *Due to a short-term increase in disturbance to big game, project activities may affect but are not likely to adversely affect gray wolves. Activities will result in fragmentation of habitat that could alter the movements of lynx traveling through the area, therefore implementation of the Selected Alternative may affect but would not likely adversely affect lynx or its survival. There will be no effect to bald eagle (due to the anticipated long-term improvement of the watershed and fisheries in the Little North Fork Coeur d'Alene River and the low probability of eagle occurrence in the area) or grizzly bear (because there is no known use of the area by grizzly bears and there would be no long-term degradation of habitat).*
- *White sturgeon are listed as “endangered” and bull trout are listed as “threatened” by the US Fish & Wildlife Service. Fish habitat and abundance in watersheds of the project area are described in the FEIS (pages III-15 through III-27). No current or historic white sturgeon populations or habitat exist in the Coeur d' Alene River Basin. Based on existing conditions, project activities, and measures designed to protect or enhance aquatic resources; the project may affect but will not likely adversely affect bull trout. Any effects of the project activities individually or cumulatively are expected to remain within tributaries of the cumulative effect watersheds or watershed areas. No physical response will extend to or be measurable in the Coeur d'Alene River or Coeur d'Alene Lake below the project watersheds or in the Spokane River. Lake Coeur d'Alene flows into the Spokane River, which eventually combines with the Upper Columbia River far downstream. No effects would reach either point.*

- *There will be no effect to the Threatened plant species water howellia (Howellia aquatilis) and Ute ladies-tresses (Spiranthes diluvialis) as a result of activities under the Selected Alternative because suitable habitat does not occur in the project area. There would also be no effect to Spalding's catchfly (Silene spaldingii) due to a lack of suitable habitat for the species in activity areas.*

Based on these determinations, I find the Selected Alternative is consistent with the Endangered Species Act. As required by Section 7 of the Endangered Species Act, we have consulted with the U.S. Fish and Wildlife Service regarding the activities and anticipated effects of this project. They have concurred with our findings (Attachment D).

VIII.C. 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 Little North Fork of the Coeur d'Alene River is listed as a water quality limited stream under §303(d) of the Clean Water Act. Sediment is the pollutant of concern, primarily caused by forest roads encroaching on streams and at stream crossings (Attachment E, Idaho Division of Environmental Quality letter dated December 28, 2001). While this project will generate short-term localized increases in fine sediment (silt), the sediment of concern is the coarse sediment, or cobble (FEIS, page III-5). This project will substantially reduce the delivery of coarse sediment by removal of encroaching roads and culverts, thereby supporting the attainment of the Clean Water Act objectives. The IDEQ concluded that Alternative 8 is consistent with IDAPA 58.01.03.0545, which implements §303(d) of the Clean Water Act. The modifications to Alternative 8 (described on page 1 of this decision) will generate less short-term, localized fine sediment and complete the watershed restoration activities, thereby further enhancing attainment of Clean Water Act objectives. Watershed restoration activities such as this project are a key component to the TMDL strategy for the Little North Fork Coeur d'Alene River.

EPA also reviewed the FEIS, and concluded that it adequately disclosed the impacts and benefits from the Iron Honey Resource Area project, and adequately responded to their comments on the DEIS (Project Files, Public Involvement).

Based on the Water Resources and Fisheries analyses in Chapter III (pages III-5 through III-80), measures outlined in the EIS to protect water and soil resources (pages II-20 through II-22), Soils information presented in the Project Files, and DEQ findings, the Selected Alternative meets the Clean Water Act requirements. For further discussion, please refer to Section V.A., Aquatic Resources.

VIII.D. 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. This will be done under the Selected Alternative, and burning will be conducted in a manner that will meet air quality requirements. 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 (for further discussion please refer to Section V.C. of this decision; the FEIS, page II-23; and Project Files, Air Quality).

VIII.E. Environmental Justice Act

In February 1994, President Clinton signed Executive Order 12898, requiring federal agencies to conduct activities related to human health and the environment in a manner that does not discriminate or have the effect of discriminating against minority and low-income populations (Project Files, Environmental Justice). Although low-income and minority populations live and recreate in the vicinity, activities under the Iron Honey project will not discriminate against these groups. 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 EIS, "Compliance With the Environmental Justice Act, pages III-214 and III-215, and the Project Files, "Environmental Justice.")

VIII.F. Natural Resources Agenda

On March 2, 1998, former 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. The following briefly describes consistency of the Iron Honey project with those specific areas:

Watershed health and restoration: As stated in the EIS (page II-5), the activities to be implemented have been designed to be consistent with the goals and tentative direction provided under the Natural Resources Agenda to date. The objectives for this Iron Honey project are to improve water quality and riparian habitat, trend the vegetative species composition toward historic levels (which included species more resistant to insects and disease), increase age-class diversity and reduce old-growth fragmentation, and reduce fire hazard and potential fire severity (EIS, pages I-3 and I-4).

Forest road policy: Forest road management is tiered to the Forest Plan (EIS, page II-24), and takes into consideration the proposed Forest Service Road Management and Transportation System Rule and Roadless Area Conservation Rule, as discussed in Section VIII.H.

Sustainable forest management: Regeneration harvests will occur on 1,408 acres in a total of 11 shelterwood harvest units. Following site preparation, all of these regenerated stands will be planted with white pine and western larch to promote stand structure 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.

Recreation: 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 (EIS, pages III-195 through III-198, III-212 and III-213). No developed recreation sites will be directly affected. Indirect effects might include the sounds of 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 (EIS, page A-5).

VIII.G. Roadless Area Conservation Rule

The Roadless Area Conservation Rule, restricting logging and road building activities in 58.5 million acres of National Forest System lands, was published in the Federal Register on January 12, 2001, with an effective date of March 13, 2001. This effective date was delayed until May 12, 2001, consistent with the Assistant to the President's memorandum of January 20, 2001. On May 4, 2001, Secretary Veneman announced that the USDA would implement the Roadless Area Conservation Rule. The U.S. District Court for the District of Idaho on May 10, 2001, preliminarily enjoined the Department from implementing the Roadless Conservation Rule. This decision was appealed on May 21, 2001, to the Ninth Circuit Court of Appeals, which held a hearing on the merits on October 15, 2001. On June 7, 2001, in order to bring some stability to roadless area management given the legal uncertainties, Chief Bosworth informed top agency officials that he reserved unto himself with some exceptions, authority to approve road construction, road reconstruction and timber harvest projects in inventoried roadless areas. Interim Directives were issued on July 27, 2001, and updated on December 14, 2001, formalizing this policy.

There are no lands in or adjacent to the Iron Honey Resource Area identified as roadless (Management Area 10) under the Forest Plan. Therefore, there would be no change to road access in relation to inventoried roadless areas under the Selected (or any other) Alternative.

VIII.H. Forest Service Road Management and Transportation System Rule

On January 28, 1998, in an Advance Notice of Proposed Rulemaking (63 CFR 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 (RAP) 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 officers to consider about possible road construction, reconstruction, and decommissioning needs and opportunities. Line officers must also choose the appropriate geographic scale or scales and how detailed the analysis will be. Selecting the appropriate scale for assessing roads opportunities depends on the issues being analyzed and how their effects are manifested; the extent and nature of linkages with other ecological, social, and economic systems; the nature of variables under the control of the decision process; the information availability and value in relation to the range of potential consequences; and budget and personnel constraints (Roads Analysis: Informing Decisions about the National Forest Transportation System, USDA Forest Service, 1999, pg. 4).

Since the Iron Honey proposal was initiated in 1996, this analysis tool was not available to us at the time the Iron Honey proposal was being developed and analyzed. Consequently, the transportation analysis was conducted based on existing information and guidelines provided in the Forest Plan. The management of each road was determined based on the logging systems plan under each alternative. A summary of the information considered in the roads analysis for the Iron Honey Resource Area is provided in the Project Files (Transportation, "Roads Analysis"). For additional information, please refer to the transportation planning discussion in Attachment C.

VIII.I. National Historic Preservation Rule

This project is not expected to affect any cultural resources (FEIS, page II-24 and A-4). Recognizing the potential for unidentified sites to be encountered and disturbed during project activity, any future discovery of heritage resource sites or caves will be inventoried and protected if found to be of cultural significance. A decision will be made to avoid, protect, or mitigate effects to these sites in accordance with the National Historic Preservation Act of 1966. Based on the successful protection of cultural resources on the IPNF through cooperation with the State Historic Preservation Office, these measures have been found to be effective (IPNF Forest Plan Monitoring Report for 1999, page 17).

VIII.J. 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.

Forest Plan Consistency. 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)]. The standards and guidelines for the Forest Plan (Forest Plan, Chapter II) apply throughout the Resource Area.

The Forest Plan designated National Forest System lands within the Iron Honey Resource Area to five management areas. Approximately 88% (19,000 acres) are in Management Area 1, with emphasis on timber production; the remaining 12% is equally divided into Management Area 6 (with the objectives of providing both high quality elk summer habitat and wood products through road, Management Area 9 (managed to maintain and protect existing improvements and resource productive potential with minimum investments) and Management Area 19 (managed for a semi-primitive recreation setting while providing low levels of timber harvest with minimum standard roads).

Management Area 9 consists of a combination of areas of non-forest lands, lands not capable of producing industrial products, lands physically unsuited for timber production, and lands capable of timber production but

isolated by the other types listed or by private ownership (Forest Plan, page III-39). All harvest will occur on lands capable of timber production. For more information, please refer to the "Forest Vegetation" discussion in Chapter III of the FEIS.

In addition, streamside (riparian) areas were designated as Management Area 16, with primary goals of managing those areas to feature riparian-dependent resources (fish, water quality, certain vegetation and wildlife communities) while producing other resource outputs at levels compatible with the objectives for dependent resources. In development of the alternatives considered for the Iron Honey proposal (including the Selected Alternative), standards and guidelines of the Inland Native Fish Strategy were used specifically to protect water and aquatic biota within the Resource Area.

The Forest Plan directs that creation of openings larger than 40 acres must conform to current Regional guidelines regarding public notification, environmental analysis and approval. The public was notified in March 1998 that regeneration openings in excess of 40 acres were proposed under some of the alternatives (Project Files, Public Involvement, Scoping). Attachment A displays the Selected Alternative units that will create openings larger than 40 acres. The Regional Office has reviewed and approved these units (Project Files, Vegetation).

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. Goals identified by the Forest Plan (Forest Plan, pages II-1 and II-2) will be furthered by: enhancing the diversity of plant communities (goal 8); improving fisheries habitat (goal 13), water quality (goal 18), and the integrity of stream channel systems (goal 19); and rehabilitating forested lands by planting white pine and larch (goal 15). The Forest Plan is discussed briefly in Chapter II of the EIS (pages II-5 and II-6), with disclosure of Forest Plan consistency for each resource in Chapter III of the FEIS. Upon review of the information disclosed in the Iron Honey EIS, Chapter III effects analysis for each resource, I find that my decision is consistent with the Forest Plan as amended by the Inland Native Fish Strategy (INFS).

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. Please refer to the EIS discussions of effects to Aquatics (pages III-5 through III-80), Soil Productivity (pages III-125 through III-136); and the Project Files, "Soils.")
2. Activities will not affect the most potentially serious natural hazards. The vegetative and fuels treatment will reduce the risk and effects of catastrophic fire, should it occur, by reducing fuel concentrations, as described in this decision document. Please refer also to the EIS, Sections 2.6 (Alternative Descriptions), 3.3 (Forest Vegetation) and 3.5 (Fire/Fuels).
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. Please refer to the FEIS, Section 3.3 (Forest Vegetation).
4. Water bodies and their values are appropriately protected. For additional information, please refer to Section VI.C, Clean Water Act; the FEIS, Features Designed to Protect Aquatic Resources (pages II-20 and II-21); and Aquatics, pages III-5 through III-80.
5. The activities will provide for and maintain a diversity of plant and animal communities as described in this decision document. The Selected Alternative will increase vegetative diversity by reforesting 1,408 acres with white pine and western larch seedlings. Diversity will also be improved by underburning in these units. Please refer also to the EIS, Forest Vegetation, pages III-91 through III-125; Wildlife, pages III-154 through III-193; and TES Plants, pages B-5 through B-14.
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. (Please refer to Section VI.B, Endangered Species Act, and the FEIS, Wildlife discussions, pages III-154 through III-193.)

7. The EIS assesses potential physical, biological, aesthetic, cultural, engineering, and economic impacts of the Selected Alternative and is consistent with multiple uses planned for the area. (Please refer to the FEIS, Environmental Consequences discussions, Chapter III and the Project Files.)
8. Implementation of the Selected Alternative will not affect critical habitat for Threatened and Endangered species (please refer to Section VI.B., Endangered Species Act, and the FEIS, Aquatics, pages III-5 through III-80; Wildlife, pages III-154 through III-193; and TES Plants, pages B-5 through B-14).
9. There are no right-of-way grants being issued as part of the activities.
10. & 11. The road construction associated with this project is designed according to standards appropriate to the planned uses, considering safety, costs of transportation and effects upon lands and resources. (Please refer to Attachment C of this decision, and the FEIS, Chapter II, page II-24; the environmental consequences discussions throughout Chapter III of the EIS, which address effects of proposed roads in relation to each resource, and Appendix F - Transportation.)
12. Applicable Federal, State, and local air quality standards will be met (please refer to Section VI.D., Clean Air Act, the FEIS, page II-23, and the Project Files, "Air Quality").

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.** The Forest Plan allocated National Forest system lands in the analysis areas to Management Areas 1, 4, 6, 9 and 19. Goals for each management area are described in detail in the IPNF Forest Plan (Forest Plan, Chapter III). After review of the expected environmental consequences of the various alternatives (EIS, Chapter III), 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 Section VI.I.1, Forest Plan Consistency.
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 (IPNF Forest Plan Monitoring and Evaluation Report, 1998, page 7).
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 and public desires. Please refer to the Financial discussions in the EIS (pages III-205 through III-210).
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 III of the EIS, Forest Vegetation discussions, pages III-80 through III-125). 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 measures under the Selected Alternative will assure that site productivity is maintained and soil and water resources are protected. Please refer to the EIS, Chapter II, pages II-20 through II-22, Aquatics, pages III-5 through III-80; and 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 EIS, I find that the Selected Alternative will provide the desired effects on vegetation resources within the project area, and will have acceptable

effects on water, wildlife, and soil resources. Please refer to the discussions of effects to resources in Chapter III of the EIS.

- 7. Be practical in terms of transportation and harvesting requirements and total costs of preparation, logging and administration.** Data presented in the EIS 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 EIS, pages III-202 through III-210, Appendix F – Transportation, and the Project Files (Transportation).

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, and proposed harvest units are within productive habitat types as described in the Forest Plan. All of the commercial timber harvest will occur within Management Areas 1, 4, 6, and 19 as described in the Forest Plan. These Management Areas are considered suitable for timber management (FEIS, pages II-5 and II-6).

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 a total of 1,408 acres in 11 harvest units. The location and shape of openings that will be created by timber harvest under the Selected Alternative will achieve the desired combination of multiple-use objectives. No clearcutting is planned.

I have reviewed the silvicultural information in the EIS 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.

IX. Consistency With the Goals of Other Agencies and the Coeur d'Alene Tribe

US Environmental Protection Agency (EPA): Proposed activities in the project areas were discussed throughout the process with representatives from this agency. During scoping, Richard B. Parkin submitted comments (DEIS, Appendix A). Their key concerns related to water quality, including Total Maximum Daily Load (TMDL) and Best Management Practices. They concluded that our analysis must show that there would be no degradation to water quality as a result of this project. We responded to their comments in the DEIS (Appendix A, pages A-3 through A-5). Our analysis included the information they had recommended (such as cumulative effects, Best Management Practices, identification of water bodies potentially affected, etc.). Project Team Leader Glenn Truscott spoke with EPA representative Andy Smith to answer several of their questions (Project Files, "Public Involvement," Document SCO-35).

EPA reviewed the DEIS and assigned a rating of EO-2, Environmental Objections, Lack of Information (FEIS, Appendix A). Because there was no preferred alternative identified in the DEIS, their rating was based on Alternative 5, which proposed the most aggressive vegetative restoration of all alternatives. Alternative 8, which I have selected for implementation, was developed based on public comments on the DEIS, and had not yet been presented at the time of EPA's review. We responded to their comments in the FEIS (Appendix A, pages A-26 through A-28). Their key concerns were related to water quality and effects of harvest activities, with questions regarding recruitment old growth allocation. The Selected Alternative, developed based on concerns such as these, will have substantially less impact to water resources than Alternative 5, on which they based their review and rating. The modifications I have identified for the Selected Alternative should further alleviate their concerns by eliminating the harvest in units located in stands that may have some characteristics of old growth, reducing the total amount of harvest by nearly 500 acres.

On January 30, 2002, a letter was received from EPA, stating that they had reviewed the FEIS and concluding that it adequately discloses the impacts and benefits from the Iron Honey Resource Area project and adequately responded to their comments on the DEIS (Project Files, Public Involvement).

US Fish & Wildlife Service: Proposed activities in the project areas were discussed throughout the process with representatives from this agency. US Fish & Wildlife Service did not provide written comments during scoping or during review of the DEIS, but did participate in a field trip to the area (October 1998) and in other discussions with project team representatives regarding wildlife habitat needs and concerns. As provided by Section 7 of the Endangered Species Act, US Fish & Wildlife Service representatives reviewed our analysis and determination of effects to ensure that we have provided the best data available concerning the anticipated impact on listed species or critical habitat. In their January 17, 2002 letter (please refer to Attachment D), they concurred with our findings.

Idaho Department of Fish and Game (IDFG): Proposed activities in the project area were discussed several times throughout the process with biologists from this agency, in meetings and during field trips to the area. IDFG did not provide comments during scoping, but did comment during DEIS review. We responded to their comments in the FEIS (Appendix A, pages A-16 through A-18). In their written comments, key concerns related to our ability to fund and implement the watershed restoration activities, and then to defer further land management activities in the area for an extended period of time. They also identified concerns related to impacts to wildlife. They recommended a compromise between Alternatives 2 or 7 and Alternative 6, which would have reduced risk with greater watershed restoration than was originally presented in either of Alternatives 2 or 7. In response, we developed Alternative 8, which was presented in the FEIS. IDFG did not provide comments on the FEIS. In selecting Alternative 8 for implementation, I believe we have addressed their concerns through the identified modifications.

Idaho Department of Environmental Quality (DEQ): Proposed activities in the project areas were discussed throughout the process with representatives from this agency. DEQ did not provide comments during scoping. During DEIS review, comments were received from two DEQ representatives: Diane Riley provided comments regarding air quality; June Bergquist expressed concerns related to water quality. We responded to their comments in the FEIS (Appendix A, pages A-14 through A-16). In April 2001, team members made a presentation to DEQ representatives that focused on the features and anticipated effects of Alternative 8 (Project Files, "Public Involvement," Document DEIS-25). DEQ representatives also attended a presentation we made to the Four County Natural Resources Committee and Coeur d'Alene Area Chamber of Commerce in December 2001. After release of the FEIS, we received comments from Gwen P. Fransen, Regional Administrator of DEQ. We have responded to her comments in Attachment E of this decision document. She concluded that if all mitigation is carried out in a timely manner, there will be a net reduction of sediment under Alternative 8, consistent with IDAPA 58.01.02.054, and states that Alternative 8 is consistent with the TMDL. She also identified concerns related to roads, harvest in riparian zones, and livestock grazing.

Coeur d'Alene Tribe: The Tribe receives the Forests' Quarterly Schedule of Proposed Actions (Quarterly Report), and indicates interest in proposals that could affect on their interests. The Iron Honey proposal was first listed on the Quarterly Report in October 1996, and will continue to be listed through at least the first quarter of 2002. The Tribe has expressed no concerns, support or objections to the project.

X. Appeal Rights

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

An 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 period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

XI. Implementation

Land Exchange – Easement: Historic records show that a fee-strip of land was retained by the U.S. Government for a forest road through the private ownership at Horse Heaven. However, it appears that the location of the fee-strip does not match the location of the existing road (Road 794) through the area, and never did. Nor could a right-of-way easement be found for the Colt Mountain Road (Road 2346). Construction of the Colt Mountain Road was started in 1934; the road has been both used and maintained by the Forest Service since that time. As part of the Selected Alternative, an easement will be sought for the existing location of Road 794 in exchange for the present fee-strip. At the same time, an easement will be sought for the present location of Road 2346. This type of land inter-exchange is permitted under the Small Tracts Act.

Contract Options: Congress recently gave the Forest Service the authority to test a way of working with the public on projects that combine harvest of forest products with land restoration activities. The concept is called "land stewardship contracting." As the national timber sales program has shifted its emphasis in the direction of using timber harvesting as a tool to promote forest health, the limitations of timber sale contracts (used exclusively for activities related to the removal of timber) and service contracts (typically used for management tasks unrelated to timber harvesting) have become readily apparent. The stewardship contracting authority does not replace either the timber sale contract or the service contract, but it does empower resource managers with an innovative tool to use in instances where both timber removal and service related functions are required. In so doing, the stewardship contract gives us greater flexibility when working cooperatively with our partners in the private sector. A key concept of this approach is that we can use values generated from forest products or user fees to offset the costs of additional services rendered under a single contract, thus making resource improvements in a more timely and cost-effective manner.

Stewardship Contracting authority gives the Forest Service the opportunity to initiate timber sales while integrating other elements into the timber sale contract that involve activities such as: watershed restoration, wildlife and fisheries habitat restoration, noxious weed control, road/trail maintenance or reclamation, fuel reduction, prescribed burning, and thinning to improve forest health. The value of timber or other forest

products removed can be used to offset the expenses of the other activities. The use of stewardship contracts provides another tool to help increase the effectiveness of public land management, especially where funding may not exist to accomplish needed ecosystem restoration.

In the context of the Iron Honey project, we have identified harvest units in the Iron Creek drainage that we plan to offer in exchange for watershed restoration services, including culvert removal, road obliteration, and in-stream restoration activities. For additional discussion of how use of stewardship contracting will affect the funding of activities, please refer to Section V.H. Financial Considerations.

Schedule of Activities: The following table identifies the anticipated implementation schedule for activities under the Selected Alternative.

Table 15. Approximate schedule of activities.

Activity	Alt. 8
Road construction/ reconstruction	2002-04
Timber harvest	2003-07
Prescribed burning	2004-08
Tree planting	2005-09
Watershed restoration	2002-12

The Selected Alternative concentrates the disturbance of this project into about a 10-year timeframe. It is my intent that following completion of the activities authorized by this decision, sufficient time will pass to allow the long-term benefits of aquatic and vegetative restoration to be fully realized before implementing additional major resource management activities. Conditions of the ecosystem will be monitored as provided by the Forest Plan and for this project (please refer to the monitoring discussions in this decision and in the FEIS, Appendix C). Should conditions change extensively (for example, if a large-scale wildfire or other natural disturbance occurred in the area), management would be re-evaluated under 40 CFR 1909.15 (Chapter 18).

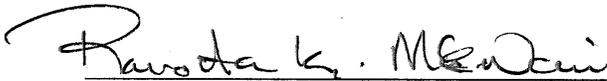
In their January 17, 2002 letter, the US Fish and Wildlife Service supported development of a management area classification that would ensure this situation, and recommended that definitive and measurable recovery criteria and goals be developed that will facilitate effective evaluation of the watershed's response to the treatments. Such a management area classification does not currently exist, but will be evaluated through the ongoing Forest Plan revision effort for the Idaho Panhandle National Forests.

XII. Further Information

For more information regarding the project, please contact District Ranger Joe Stringer or Ecosystems Staff Officer Steve Bateman at the Fernan Office of the Coeur d'Alene River Ranger District, (208) 664-2318.

I am the Responsible Official for this decision. The original Notice of Intent identified District Ranger Susan Jeheber-Matthews as the Responsible Official. A revised Notice of Intent has been published in the Federal Register documenting this change.

This Record of Decision 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 Iron Honey EIS 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.



RANOTTA K. MCNAIR

Forest Supervisor

Idaho Panhandle National Forests



Date

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To file a complaint of discrimination, write USDA, Direct, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue SW, Washington DC 20250-9410, or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

LIST OF REFERENCES CITED IN THIS DECISION

The following references were cited in this Record of Decision. More specific citations were made in the Final Environmental Impact Statement, with the appropriate copies of reference material provided as part of the Project Files.

Council on Environmental Quality, 1981. *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Recommendations (40 CFR 1500-1508).* In: *Federal Register* Vol. 46, No. 55, 18026-18038, 3/23/81. 23 pp.

Garrison-Johnston, M.T., Moore J.T., Niehoff, G.J. *Douglas-fir Beetle Infestations are Associated with Certain Rock and Stand Types in the Inland Northwestern United States.* Intermountain Forest Tree Nutrition Cooperative, unpublished manuscript draft, 2001.

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Jerome, Sarah. 2001. *A Wildfire Hazard Assessment for the Coeur d'Alene River Ranger District.* USDA Forest Service, Northern Region, Idaho Panhandle National Forests, Coeur d'Alene River Ranger District.

Patton, Rick. 2002. *Extended Cumulative Effects Analyses for the Iron Honey Analysis.* USDA Forest Service, Northern Region, Idaho Panhandle National Forests. 8 pp.

Stark, Nellie M. 1979. *Nutrient Losses from Timber Harvesting in a Larch/Douglas-fir Forest.* USDA, Forest Service Research Paper INT-231. Intermountain Forest and Range Experiment Station, Ogden UT, July 1979, Research Summary page.

USDA Forest Service, 2001. *Small Sales Final Environmental Impact Statement and Record of Decision.* USDA Forest Service, Northern Region, Idaho Panhandle National Forests, Coeur d'Alene River Ranger District.

USDA Forest Service, 2000. *Forest Plan Monitoring and Evaluation Report – 1999.* USDA Forest Service, Northern Region. Page 17.

USDA Forest Service, 2000. *Northern Region Snag Management Protocol.* USDA Forest Service, Northern Region.

USDA Forest Service, 2000. *Noxious Weeds Final Environmental Impact Statement and Record of Decision.* USDA Forest Service, Northern Region, Idaho Panhandle National Forests, Coeur d'Alene River Ranger District.

USDA Forest Service, 1999. *Roads Analysis: Informing Decisions about the National Forest Transportation System.* USDA Forest Service.

USDA Forest Service, February, 1998. *Toward An Ecosystem Approach: An Assessment of the Coeur d'Alene River Basin.* USDA Forest Service, Northern Region, Idaho Panhandle National Forests. Ecosystem Paper #4.

USDA Forest Service, 1997. *An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins.* USDA Forest Service.

USDA Forest Service, August 1995. *Federal Guide to Watershed Analysis – Environmental Analysis at the Watershed Scale.* USDA Forest Service, Portland, Oregon.

USDA Forest Service, 1995. *Inland Native Fish Strategy Environmental Assessment, Decision Notice and Finding of No Significant Impact.* Intermountain, Northern and Pacific Regions. 35 pp.

USDA Forest Service, 1987. *Idaho Panhandle National Forest Plan.* Idaho Panhandle National Forests, Forest Supervisor's Office. Coeur d'Alene, Idaho.

USDA Forest Service, 1983. *Northern Regional Guide.* USDA Forest Service, Northern Region.

USDA, USDI. 1996. *Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin and Portions of the Klamath and Great Basins.*

ATTACHMENT A

HARVEST OPENINGS GREATER THAN 40 ACRES

The following table identifies those units that will exceed 40 acres, either due to the size of the proposed unit, or the size of the unit in conjunction with adjacent openings.

For the purpose of this analysis, past regeneration harvests were no longer considered created openings when both vegetation and watershed conditions met management objectives. In addition, stands regenerated prior to 1980 were no longer considered openings.

Table A-1. Proposed harvest openings greater than 40 acres.

Unit #	Unit Acres	Adjacent Opening Size (Acres)	Total Opening Size (Acres)
4	166	56	219
5	146	0	146
6	46	0	46
7	175	0	175
8	266	0	266
9	58	0	58
10	189	0	189
11	60	0	60
12	119	0	118
13	56	0	56
16	127	0	127

The Regional Office has reviewed this proposal and approved these units (Project Files, Vegetation).

ATTACHMENT B OPPORTUNITIES

The following are projects that could complement and improve resource conditions within the project area. These projects are not considered mandatory for project implementation nor are they guaranteed to be implemented; they may be accomplished if funding becomes available. The anticipated effects of implementing these activities have been considered as disclosed in the FEIS (Chapter III) and briefly discussed below.

Opportunities to Improve Aquatic Resources

Improvements to channel stabilization and fish habitat could be achieved by placing wood in streams. There are also many opportunities to further reduce road related sediment loads in the drainage. All roads not identified as part of the long-term transportation plan will be available for road removal activities. The work will be implemented as additional funding becomes available. The work consists of the removal of roads, their associated road channel crossings, and the removal of additional low standard riparian roads located in the drainage headwaters. The analysis of effects to aquatic resources considered the effects of removing additional stream crossings, and displayed in the FEIS (Chapter III, "Aquatics"). There is also the opportunity to improve riparian vegetation along Iron Creek. Additional information regarding the implementation and effects of this type of rehabilitation work is provided in the FEIS (Chapter III) for each appropriate resource, and in the Project Files (Aquatics).

Opportunities to Improve Forest Vegetation

Opportunities for vegetation restoration include 956 acres of precommercial thinning and 587 acres of white pine pruning. The effect of these treatments will be to improve the growth and vigor of planted or naturally regenerated trees in stands that were harvested in the past. Precommercial thinning stands are prioritized to treat those stands with a large component of early seral species (white pine, western larch and ponderosa pine) first. This will allow these species to better compete with the more shade-tolerant species so they can better provide the desired forest structure and composition. Pruning of white pine reduces the potential of infection by white pine blister rust and also improves the tree's ability to survive infection by removing infected branches. Pruned trees have a better chance of reaching maturity and contributing to the desired forest structure and composition.

The following table identifies those stands in the Iron Honey Resource Area where there is an opportunity to accomplish thinning or pruning activities.

Table B-1. Pruning and thinning opportunities in the Iron Honey Resource Area.

Stand #	Activity	Acres	Thin Priority Rating ¹	Trees per acre (TPA) ²	Estimated percent of crop trees by species (following thinning)	Pruning Priority
30201009	prune	32		1,130	35% white pine	high
30202012	prune	38		1,575	8% white pine	low
32002031	prune	36		1,231	4% white pine	low
30202035	prune	41		1,685	17% white pine	mod
30202038	prune	25		1,708	37% white pine	high
30202039	prune	31		2,353	42% white pine	high
30202046	prune	42		1,668	0% white pine	low
30202052	prune/thin	14	23	440	0% white pine	low
30202053	prune	14		1,000	24% white pine	mod
30203005	prune	14		1,150	26% white pine	mod
30203006	prune	31		1,323	32% white pine	high
30203009	prune	19		768	26% white pine	mod
30203016	prune	26		1,120	15% white pine	mod
30305030	prune	29		1,212	22% white pine	mod
30305031	prune	28		1,481	24% white pine	mod
30305033	prune	15		833	63% white pine	high
30305035	prune	7		440	14% white pine	low
30305044	prune	13		693	44% white pine	high
30305045	prune	2		768		high
30401014	thin	8	15	1,460	70% grand fir/Douglas-fir	low
30401015	thin	8	15	1,460	70% grand fir/Douglas-fir	low
30401016	thin	6	15	1,460	70% grand fir/Douglas-fir	low
30501007	prune/thin	28	17	1,121	89% grand fir/Douglas-fir, 8% white pine	low
30502007	prune/thin	9	14		Grand fir/Douglas-fir/Western hemlock	low
30502009	prune/thin	39	16	513	83% grand fir/Douglas-fir/Western hemlock, 5% white pine	low
30502010	prune/thin	31	20	583	71% grand fir/Western hemlock/Douglas-fir, 11% white pine	low
30502016	prune/thin	21	17	1,025	97% grand fir/Western hemlock/Douglas-fir, 3% Western larch	low
30505001	thin	111	14	866	92% grand fir/Douglas-fir	low

¹ This is based on the IPNF Precommercial Thinning Prioritization Criteria.

² Trees per acre on the site includes both crop and noncrop trees.

ATTACHMENT C TRANSPORTATION

Existing Condition

Approximately 288 miles of existing roads are found within the Iron Honey Project Area: approximately 166 miles of system roads (of which approximately 45% are open at this time) and approximately 122 miles of non-system roads. There are approximately 21,600 acres (33.9 square miles) of land within the project area. Thus the current average density of existing roads for the resource area as a whole is approximately 9 miles per square mile. All roads within the project area consist of a native or gravel surface. A list of existing roads within the project area is in the Transportation Plan (Project Files, Transportation). This list contains the number of inventoried culverts for the roads that have been inventoried, as well as any current restrictions on the road. The diameter of these culverts, along with the amount of fill over each one, was used in the Risk Analysis for the project area.

Road 332 provides access into the project area from the north. This road also forms the northern boundary of the project area. Road 437 allows access into the area from the west. Road 209 provides access from the south and Road 258 runs along the eastern boundary. Many of the interior roads were built for timber harvest and are either brushed-in or have access to them restricted by a gate or earth barrier. The open roads in the area are designed to pass a moderate volume of multi-purpose traffic involving a variety of forest uses, from recreation to timber and heavy-equipment transport.

About 14 miles of road have been obliterated as part of past restoration projects and are now classified as "historical" roads. This means they are no longer functioning as a road, although there may be sections of road prism existing that do not pose a hydrologic risk.

Please refer to the enclosed Transportation System maps.

Development of the Long-term Transportation System

The long-term transportation system for the Iron Honey portion of the Little North Fork Coeur d'Alene River was developed over a period of several years. The District was analyzing the entire road system for the Coeur d'Alene basin (called "Access Management") at the same time the Interdisciplinary team was working on the Iron Honey environmental analysis. We assessed the existing conditions on the Iron Honey area using the 6-step, Ecosystem Assessment at the Watershed Scale process, completed in January 1998 (Project Files, Alternative Development). This assessment pointed directly at the road system in the area as contributing to undesirable changes to the hydrologic integrity of the ecosystem. The project hydrologist and fisheries biologist made recommendations to correct problems such as stream network expansion, failing culverts, stream-encroaching roads and in-stream erosion.

To assess the environmental effects of the road-by-road changes to access, a Transportation Plan was formulated for the Iron Honey area, in concert with the rest of the resource planning. The driving force of this plan was twofold: reduce sedimentation to the watershed, and reduce the costs of maintaining the road system by eliminating unneeded roads. This plan took the proposed changes from Access Management and documented the road-by-road changes in a spreadsheet (Project Files, Transportation). The spreadsheet displays only those roads that were deemed to have a high or moderate priority of reducing sediment were included in the spreadsheet, along with their road management objectives set forth by these planning efforts. Similar information was provided in map form, which was presented to the public during numerous meetings and presentations.

Removal of "high priority" roads that are recognized as being in serious need of rehabilitation is part of the watershed restoration to occur under the Selected Alternative (and was a "feature" of all action alternatives in the FEIS). The "moderate" priorities are those roads that have some needed rehabilitation, but the funding to do the work is not insured. These are addressed as "opportunities" in the FEIS and in this decision (please refer to Attachment B). "Low priority" roads were recognized as not being needed in the future but

unnecessary to treat at this time. A large proportion of the low priority roads were brushed in, impassable, and without serious erosion potential. Most were non-system roads.

Effects of the Long-term Transportation Plan

The long-range transportation system for this alternative will consist of a total of approximately 59 miles of road within the project area. Road use in the project area is based on the Coeur d'Alene River Ranger District Travel Plan. This plan leaves approximately 47 miles of road open to public motorized use within the area. Those roads not designated as open but shown on the long-range transportation system map as stand-tending roads will be open only when needed for administrative use (there are approximately 12 miles of these roads). The total road density would decrease to and become stable at approximately 1.7 miles of road per square mile of land once all measures called for in the long-range transportation plan are in place. These changes have been considered and reviewed through an extensive public involvement process under both the Access Management Environmental Assessment and the Iron Honey Environmental Impact Statement.

Roads Analysis Process

As described in Section VIII.H. Forest Service Road Management and Transportation System Rule, one of the tools developed to meet objectives of the revised road management policy is an integrated, science-based roads analysis process (RAP). The six-step process 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 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 officers to consider about possible road construction, reconstruction, and decommissioning needs and opportunities. Line officers must also choose the appropriate geographic scale or scales and how detailed the analysis will be. Selecting the appropriate scale for assessing roads opportunities depends on the issues being analyzed and how their effects are manifested; the extent and nature of linkages with other ecological, social, and economic systems; the nature of variables under the control of the decision process; the information availability and value in relation to the range of potential consequences; and budget and personnel constraints (Roads Analysis: Informing Decisions about the National Forest Transportation System, USDA Forest Service, 1999, pg. 4).

Since the Iron Honey project was initiated in 1996, this analysis tool was not available to us at the time the Iron Honey proposal was being developed and analyzed. Consequently, the transportation analysis was initially conducted based on existing information and guidelines provided in the Forest Plan. The management of each road was determined based on the logging systems plan under each alternative. In reviewing the new roads analysis process, we found we had already completed a substantial amount of the analysis. We have since completed documentation of the roads analysis information, which is part of the Project Files ("Record of Decision").

ATTACHMENT D

LETTER OF CONCURRENCE



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Upper Columbia Fish and Wildlife Office
11103 E. Montgomery Drive
Spokane, WA 99206

January 17, 2002

Joseph P. Stringer, District Ranger
Coeur d'Alene River Ranger District
Idaho Panhandle National Forests
2502 E. Sherman Avenue
Coeur d'Alene, Idaho 83814

Subject: Iron Honey Project: FWS Ref. 1-9-02-I-073

Dear Mr. Stringer:

This responds to your November 6, 2001, letter referencing a Biological Assessment (BA), dated October 24, 2001, for the Iron Honey Project. The project will occur within the Iron Creek watershed, and will utilize timber and road management activities to begin restoring the watershed. Your letter was received in our office on November 7, 2001, and requested our concurrence with your determination of effect for the grizzly bear (*Ursus arctos*), gray wolf (*Canis lupus*), Canada lynx (*Lynx canadensis*), bald eagle (*Haliaeetus leucocephalus*), bull trout (*Salvelinus confluentus*), water howellia (*Howellia aquatilis*), and Ute ladies'-tresses (*Spiranthes diluvialis*).

We have reviewed the information provided and concur with your finding that the proposed project will have "no effect" on grizzly bears, bald eagles, water howellia, Ute ladies'-tresses, and "may affect, but is not likely to adversely affect" bull trout, Canada lynx, and gray wolves. Concurrence by the U.S. Fish and Wildlife Service is contingent upon implementation of the project as described in the BA.

We further provide the following conservation recommendation:

As noted in the BA, the emphasis for this project is to begin the process of restoring the health of this watershed by coupling restoration activities (e.g., road management) with "pulse" type activities where intensive harvest treatments occur over a large area within a short period of time, but are not repeated in the watershed for extended periods of time. However, other than an acknowledgment of a potential to identify this watershed as an area that needs to be "rested" after completion of the intensive harvest treatment activities, there is no concrete commitment to do so. The potential for designating this watershed for "rest" would occur through land management allocation implemented pursuant to forest plan revision. Therefore, we strongly urge that such management area designation occur through forest plan revision, and that

definitive and measurable recovery criteria and goals be developed that will facilitate effective evaluation of the watershed's response to the treatments.

This concludes informal consultation pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (Act). This project should be re-analyzed if new information reveals that effects of the action may affect listed species or critical habitat in a manner, or to an extent, not considered in this consultation; if the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation; and/or if a new species is listed or critical habitat is designated that may be affected by this project.

If you have further questions about this letter, or your responsibilities under the Act, please contact Bryon Holt at the above address (telephone: 509-893-8014; fax: 509-891-6748).

Sincerely,



For Supervisor

cc:IDFG, CdA

FS, CdA SO (Attn: Shanda Dekome, Bob Ralphs)

ATTACHMENT E

PUBLIC INVOLVEMENT AND COMMENT

Public Involvement Activities

The public has served as a source of information to us, helping to identify current uses, problem areas, and ideas for managing the area. They have also been a sounding board, reviewing our work and providing comments and suggested changes. The public involvement process followed the requirements of the National Environmental Policy Act as set forth in 36 CFR 215 (Notice, Comment and Appeal Procedures for National Forest System Projects and Activities), 40 CFR 1502.19 (Circulation of the Environmental Impact Statement) and 1503 (Commenting), and Forest Service Handbook 1909.15 (Environmental Policy and Procedures). The activities discussed below have been summarized in Tables 2, 3 and 4 of this decision.

Scoping

The first step in the process is "scoping" (refer to 40 CFR 1501.7). This process is designed to inform the public and other governmental agencies of a proposed action and determine the potential issues associated with a proposed action that are significant to the decision. The public was first notified of this project through the "Quarterly Schedule of Proposed Actions" for the Idaho Panhandle National Forests, beginning in the October 1996 issue and continuing through the current issue.

In the fall of 1996, we began gathering information about the conditions in the Resource Area, and thinking about what needs to be done to improve the health of the forest and water resources that are so important to fish, wildlife and people. After visiting the area with members of the public, we shared our early findings through news releases and letters to interested members of the public, and asked how they thought the area should be managed. Over the next couple of years, we added more details to these ideas, and took a look at what would occur if we were to set each of the concepts into action. In addition to the proposed activities, our analysis considered the effects of past activities, ongoing activities, and those activities that could reasonably be expected to occur in the future.

Once we determined the basic features of our project area (such as the specific drainages we would be looking at and the current condition of the resources), we invited members of the public to join us on a field trip to the area to discuss conditions and management options for the area. Those who took us up on the offer included Chip Corsi and Brian Helmich (Idaho Fish and Game), Earl Frizzell and Eric Schubert (North Idaho Fly Casters), Shireene Hale (Panhandle Health District No. 1), and Esther McDonald and Mike White (Panhandle Trail Riders Association).

On our October 4, 1997 field trip, we visited four sites. The first was in the Sob Creek drainage, where we walked up Road 1525 to view the remains of an old log flume and discuss the history of the area and the effects of past management on the watershed. About 100 yards further up the road, a 30-year old clearcut has been regenerated and now has a stand of young trees growing. We talked about the current health of forests in the area, timber management needs, and the importance and character of our old-growth stands. The second site was up the Little North Fork Coeur d'Alene River, off Road 1532 in the Iron Creek drainage. We looked at a stable, well-functioning section of the river and discussed the features that made it healthy. At the third site, about three-quarters of a mile up Iron Creek, we viewed an area where people hill climb with 4-wheel drives, motorcycles and other ATV's. We talked about how popular motorized recreation has become, and the effects on natural resources.

The fourth and final site visited on the field trip was also up Iron Creek, where the stream has overflowed its banks and cut a new channel through an old roadbed. We discussed problems related to stream crossings and the need for large wood in the stream to slow the flow of water, as well as other issues related to stream health. We shared information about our field trip discussions in a letter to interested members of the public.

In March 1998, we declared our intent to prepare an Environmental Impact Statement through publication of a Notice of Intent in the Federal Register and a legal ad in the newspaper of record ([Spokesman-Review](#)). In

April 1998, we provided interested members of the public with an update on the project through a letter. In October, 1998, we conducted another tour of the resource area, this time with Suzanne Audet of the U.S. Fish and Wildlife Service. We visited several sites to look at forest vegetation patterns, structure, and fragmentation of timber stands in the Iron and Honey Creek drainages. We explored ideas to improve both fish and wildlife habitat. We also discussed potential funding sources for getting the necessary road rehabilitation and other restoration work done. We shared our field trip discussions with the rest of the interested public through a letter, and invited them to share their observations and concerns.

Although several people indicated an interest in the project, only three comment letters were received (from Richard Parkin of the U.S. Environmental Protection Agency, Jeff Juel of the Ecology Center, and Mike Mihelich of Kootenai Environmental Alliance). Their concerns were identified and addressed in the Iron Honey DEIS (refer also to the Project Files, Public Involvement – Scoping). We used their comments and the recommendations and comments generated during our field trips to develop our initial proposal and alternative strategies for management of the Iron Honey Resource Area. Because some of these strategies could result in significant environmental impacts, we determined we needed to complete an environmental impact statement (EIS).

Draft Environmental Impact Statement

It took us a year and a half to complete the analysis and documentation. We documented what we learned and responded to public comments in a Draft Environmental Impact Statement (EIS), which was distributed to interested members of the public in April 2000. We notified the general public of its' availability through a Notice of Availability in the Federal Register and with a legal ad in the Spokesman-Review newspaper. We asked the public and other agencies to take a look at it and let us know what course of action they'd like to see occur. We shared our initial analysis findings with interested members of the public and other agencies through numerous presentations, meetings, field trips, news articles, radio interviews and telephone conversations (documented in the Project Files, Public Involvement). After 45 days of review, we had received 10 letters offering comments on the project. These letters came from John Bentley and Mike Mihelich (Kootenai Environmental Alliance), Diane Riley and June Bergquist (Idaho Department of Environmental Quality), Sara Denniston (Idaho Rivers United and Idaho Conservation League), Greg Tourtlotte (Idaho Fish and Game), Jeff Juel (Ecology Center and Alliance for the Wild Rockies), Troy Tvrdy (Idaho Panhandle Chapter of Trout Unlimited), and Richard Parkin (U.S. Environmental Protection Agency). Some of these comments led to the development of Alternative 8. Other comments were used to improve our analysis and documentation.

Final Environmental Impact Statement

Based on what we heard from the public and additional information we gathered, we prepared a FEIS. In addition to responding to public comments, the FEIS thoroughly described the parts and pieces of the Iron Honey Resource Area, the options for management, and our predictions as to the consequences of our actions, whether we intensively manage the area or walk away. We shared our final analysis findings with interested members of the public and other agencies through numerous presentations, meetings, field trips, news articles, radio interviews and telephone conversations (documented in the Project Files, Public Involvement).

Although no public review of a FEIS is required, we chose to provide the public 30 days in which to review the Iron Honey FEIS, prior to issuing the Record of Decision, because of the level of interest in the project, and the fact that a new alternative, based on public comments on the Draft, was formulated and analyzed in the Final. At the end of the 30 days, we had received 23 letters representing 14 individuals, 8 organizations, 1 political office and 1 state agency. Of the 23 written comments, only 4 had previously provided comments on the project (Jeff Juel, John Bentley, Mike Mihelich, and Idaho Department of Environmental Quality) had previously provided comments on the project). Nine of the 14 individuals provided almost identical comments, which appear to have been based on information provided to them by environmental organizations, since the website of one of the environmental organizations recommended the public use that same wording when commenting. Only one of these 9 individuals had previously expressed an interest in the project, therefore the other 8 were not on our mail list to receive copies of the EIS. Those who commented are identified in the table below, followed by our response to comments or concerns not previously raised, and copies of their letters.

Table E-1. List of those who provided comments on the FEIS.

Cmt #	Name	Representing
01	Johnston, Don	Four County Natural Resources Committee
02	Chinn, Brad	Individual
03	Attemann, Rein	Individual
04	Kuhle, Teya	Individual
05	Halloran, Mr. & Mrs. J.E.	Individual
06	May, Tom P.	Individual
07	Gerhart, Doris	Individual
08	Bradburn, Steve	Individual
09	Juel, Jeff	Ecology Center
10	Pickard, John C.	Individual
11	Kiver, Eugene	Individual
12	Bentley, John	Individual
13	Ellis, Carol	Individual
14	Pischner, Don	House of Representatives, State of Idaho, District 4-B
15	Sams, C. Richard	Coeur d'Alene Area Chamber of Commerce
16	Laufer, Laura	Individual
17	Zilliger, Laura	Individual
18	Fransen, Gwen P.	Idaho DEQ – Regional Administrator
19	Zanetti, Kathy	Shoshone Natural Resources Coalition
20	Mihelich, Mike	Kootenai Environmental Alliance, The Lands Council
21	Weller, Susan	Kootenai Environmental Alliance, Coeur d'Alene Audubon Society
22	Rosenberg, Barry	Kootenai Environmental Alliance, The Lands Council, Idaho Sporting Congress
23	Hopkins, Duane	Individual

Comment Letter 01

Don Johnson provided comments on behalf of the Four County Natural Resources Committee. He had not provided comments earlier in the process. He expressed his appreciation for our presentation on the Iron Honey project, and noted his support for the activities that would re-introduce white pine back into North Idaho.

Comment Letter 02

Brad Chinn provided comments against the Iron Honey project, asserting that the “proposed welfare sale” needs to be canceled because “the environmental degradation resulting from destructive logging will be unacceptable.” He had not provided comments earlier in the process. Referring to the project as a “welfare sale” infers that the project would involve a below-cost timber sale. First, forest management activities (including commercial timber harvest) are planned based primarily on the effects to resources, not economic gain. Secondly, the Selected Alternative would generate more funds than costs. Also, the short-term impacts of implementing the Selected Alternative are far outweighed by the long-term benefits to the vegetation and watersheds, and the habitat they provide.

Mr. Chinn advised, “You need to set your timeframes on public comment on a better schedule. The December 31 deadline looks like you intent to conceal this entire issue by using the time of year as a cover.” Mr. Chinn assumes that review of the FEIS is the first time the public has heard of the Iron Honey proposal, when in fact we first notified the public of our proposal over six years ago. Throughout the process, we have informed and involved the public through mailings of the Forest’s Quarterly Schedule, notification in the Federal Register, legal advertisements and news articles in several area newspapers, public field trips, presentations to interested individuals and organizations, and mailings that included a scoping letter, DEIS, FEIS and numerous updates.

In closing, Mr. Chinn gave his opinion that, “If the Forest Service performed its job in the public interest, we wouldn’t need all these citizen groups looking over its shoulder!” Although Mr. Chinn did not define what the

“public interest” should be, it can be assumed based on his comments regarding “destructive logging” that he believes public interest would be best served by halting timber harvest. Those who would prefer to halt timber harvest on public lands are only one segment of the public, and to serve only this segment (or any other segment to the exclusion of others) would not be in the best interests of society as a whole.

Comment Letters 03, 04, 05, 06, 08, 11, 13, 16 and 17

Nine individuals (Rein Attemann, Teya Kuhle, Mr. J.E. Halloran, Tom May, Steve Bradburn, Eugene Kiver, Carol Ellis, Laura Laufer, and Laura Zilliger) provided almost identical comments expressing concern that heavily logging 1,919 acres would result in damaged soils from heavy equipment, increased flooding that could wash heavy metals downstream to the point of detrimentally affecting the Rathdrum Aquifer, and negating the benefits of approximately \$359 million dollars of cleanup work that has occurred under the Coeur d'Alene Basin Cleanup Project. With the exception of Rein Attemann, none of these people had previously indicated interest and were therefore not on our mailing list to receive copies of the EIS. Each of these nine letters contained very similar wording, as stated earlier. Two points will be addressed in response: Damage to soils; and increased flooding and heavy metals transport which might have the potential to negate cleanup benefits.

Cumulative impacts to soils were analyzed using a technical process that considers those factors determined to have an effect on soils, such as log skidding, roads, etc. The specific impacts of these activities are detailed in the “Soils” section of the project files, and the Methodologies portion of Soils (FEIS 3.4.2) tiers to this detailed technical analysis. Impacts are calculated using site-specific stand information, thus the boundaries do not change, nor is the analysis flawed because of a boundary change. Additional information has been added to the Project Files that clarify the analysis methods described there. Overall affects, based on this cumulative analysis are summarized in Chapter III – Soils, beginning on FEIS pg. III-125. Activities that were deemed to be having no effect to soils either individually or cumulatively (such as grazing) were dismissed in Table II-1 (FEIS pg II-11). Several activities, such as prescribed fire, landslides and off-road vehicle use were ignored because they were determined to have either no effect, or such a slight effect that they would not induce changes to soils on a scale that would be meaningful to this analysis. They were also not even listed as issues. This approach was deemed to be consistent with direction at 40 CFR 1502.2(a) “Environmental impact statements shall be analytic rather than encyclopedic”, and (b) “Impacts shall be discussed in proportion to their significance”.

The concern related to flooding and movement of heavy metals identified in these letters is based on misinformation. Effects to water were measured at three scales, as described in the FEIS and Summary: 1) individual watersheds, 2) the entire resource area, measured for the total Little North Fork Coeur d'Alene River above Hudlow Creek, and 3) an extended cumulative effects area, measured for the Little North Fork Coeur d'Alene River above Skookum Creek (please see Figure 5 in this decision). This area was used to reflect cumulative effects because it represents the maximum extent for which cumulative effects might be measurable (FEIS, page III-8). At each of the three points, there is the potential for slight increases in sediment and peak flow over the short term – so slight as to not be measurable by a gauging station. Since the increases in sediment and peak flows are so slight as to not be measurable at the Little North Fork Coeur d'Alene River above Skookum Creek, there is no way that project activities could result in flooding or movement of heavy metals. No physical response would extend to or be measurable in the Coeur d'Alene River or Coeur d'Alene Lake. No effects would reach the Spokane River or Upper Columbia River.

Over the long term, sediment delivery would be substantially reduced under the Selected Alternative, leading to an increase in streambank stability (FEIS, page III-71). The watershed benefits from improvement activities such as road obliteration and instream improvements are greater than the potential impacts from management activities (FEIS, page III-70).

Comment Letter 07

Doris Gerhart commented on the effects of large-scale logging and roads on the North Fork Coeur d'Alene River, especially sediment and erosion. She expressed hope that the Iron Honey timber sale is not "an old growth forest" as there is too little left as it is. She also encouraged us to resist any pressure from Washington D.C. to cut timber. She had not provided comments earlier in the process.

Past harvest and roads have had serious effects to the North Fork Coeur d'Alene River, as described in the EIS. However, the activities that will be implemented under the Selected Alternative are designed to help restore the vegetative and watershed health of the area. The short-term effects are far outweighed by the long-term benefits to the forest and watersheds, and the habitat they provide. Others who commented echo the concern that we might be cutting old growth forest. In order to assure that Forest Plan standards are being met, each District has begun to re-assess the status of our allocated old growth. Since public comments on the Iron Honey project brought up this issue, this Resource Area was one of the first to be reviewed. Data and ground conditions were analyzed and compared against the standing protocol for allocation of old growth. Allocation means it meets a set of minimum criteria and is reserved from intensive timber management activities. Currently there is allocated old growth within the boundaries of the project area. The project activities will not affect these stands. There are also stands within the area that may meet the minimum criteria to make them candidates for allocation, but they are currently not allocated. Based on the concerns expressed by the public to assure that we manage our old forests wisely, those stands meeting the minimum criteria in the Iron Honey Resource Area will not have timber removed through any commercial sale until the District-wide review process is completed.

In response to public and in-service concerns over the amount of allocated old growth in the project area, the Selected Alternative increases the amount of allocated recruitment old growth from 3% of the area to 7% of the area (an increase of 1,380 acres).

Forest management is an integral part of the Forest Service's mission, and timber harvest is just one of the tools that can be used. Dale Bosworth, Chief of the Forest Service in Washington D.C. recently stated, "We have come to realize that without healthy ecosystems, we cannot sustain the products and uses that our communities need for their health and stability. Our central mission in managing the national forests and grasslands has shifted from producing timber, range, and other outputs to restoring and maintaining healthy, resilient ecosystems."

Comment Letter 09

Jeff Juel provided comments on behalf of the Ecology Center of Missoula, Montana. He previously provided comments during scoping and after review of the DEIS, on behalf of the Ecology Center, Lands Council, and Alliance for the Wild Rockies. Mr. Juel's concerns related to several issues were already identified in his earlier comments, and have been addressed in the EIS (incorporating past comments, page A-26; species viability, pages A-24 and 25; old growth, pages A-20 and A-23; habitat fragmentation and corridors, pages A-21 and A-22; and snag habitat, pages A-23 and A-24). Those concerns which were responded to in the Draft and FEIS documents will not be repeated here.

In his letter commenting on the DEIS, Mr. Juel briefly raised the issue of soils as an example, stating "As one example of an issue the DEIS does not adequately discuss that is mentioned in our 1/25/2000 letter, consider cumulative impacts on soils. The Forest Plan requires the DEIS to disclose the locations of Activity Areas in the project area which do not meet Forest Plan standards for detrimental conditions." Mr. Juel has provided additional discussion of the soils issue. Most of the first 7 pages of Mr. Juel's letter identify several concerns related to the analysis of effects to soils, particularly related to the use of the "15% standard." He states, "In regards to the FS assumption that maintaining soil productivity is achieved simply by limiting detrimental disturbance to no more than 15% of an activity area (cutting unit), the scientific adequacy of this methodology for maintaining soil productivity on the IPNF has never been demonstrated."

As stated earlier, cumulative impacts to soils were analyzed using a technical process that considers those factors determined to have an effect on soils, such as log skidding, roads, etc. The specific impacts of these activities are detailed in the "Soils" section of the project files, and the Methodologies portion of Soils (FEIS,

Section 3.4.2) tiers to this detailed technical analysis. Impacts are calculated using site-specific stand information, thus the boundaries do not change, nor is the analysis flawed because of a boundary change. Additional information has been added to the Project Files that clarify the analysis methods described there. Overall affects, based on this cumulative analysis are summarized in the FEIS, Chapter III – Soils, beginning on page III-125. Activities that were deemed to be having no effect to soils either individually or cumulatively (such as grazing) were dismissed in Table II-1 (FEIS, page II-11). Several activities, such as prescribed fire, landslides and off-road vehicle use were ignored because they were determined to have either no effect, or such a slight effect that they would not induce changes to soils on a scale that would be meaningful to this analysis. They were also not even listed as issues. This approach was deemed to be consistent with direction at 40 CFR 1502.2(a) “Environmental impact statements shall be analytic rather than encyclopedic,” and (b) “Impacts shall be discussed in proportion to their significance.”

With respect to the comment on the “scientific adequacy of the methodology,” the above-mentioned analysis is based on soils monitoring data collected on numerous sites, that has been analyzed by the Forest Soil Scientist, to create a model capable of reflecting cumulative changes to soils. The resultant outputs of this “Spreadsheet Model” are designed to compare against the Forest Plan standard for detrimental disturbance. While the new Spreadsheet Model was not available at the time the technical soils analysis occurred, the coefficients that are intrinsic to this model’s operation were used in the hand calculations throughout the documents that are in the Project Files. These coefficients are specific to the type of disturbance, as well as specific to the soils that occur on the Idaho Panhandle. Annual monitoring of the parameters for these coefficients has resulted in only two revisions since the inception in 1993 of this analysis tool. The results of this monitoring have lead to information that is site-specific to the soils of the IPNF. This has allowed us to go beyond the generalized “operational precepts” that are excerpted by Mr. Juel from Bosworth 2000, and we no longer adhere strictly to this cited clarification memo, which was primarily applicable to soils in Montana. It is only one of many guiding documents that were used in this analysis (see Soils References file).

The contention that the Forest Plan limit for detrimental soil disturbance does not meet the guidance set forth in NFMA is a question best answered at the Forest Plan scale, and is thus outside the scope of this project analysis.

Mr. Juel asks, “Why are the results of past monitoring (monitoring of both past project impacts and general forest plan impacts) not relevant to the managers now proposing similar logging projects?” He did not raise this issue in his comments on the DEIS. The answer to his question is: results of past monitoring are relevant, and were used by team specialists in their analysis of existing conditions and anticipated effects. Methodology discussions in the FEIS demonstrate the use of recent surveys and field reviews to identify existing conditions:

- *The existing condition discussion was developed from many information sources and using a variety of tools, including field surveys, aerial photographs, Geographic Information System (GIS), hydrologic response techniques and models (such as WATSED) and other watershed and aquatic data derived by the Forest Service and other sources (page III-6).*
- *The disturbance factors represent an average percentage of detrimentally disturbed soils, which has been obtained through past monitoring methodology on existing harvest units – Forest Plan Monitoring and Evaluation Reports 1988, 1993, 1997 and 1999 (page III-126).*
- *The interpretations of modeled estimates for National Forest System (NFS) watersheds are combined with other data, analyses, inventories, and other information and professional judgment to address the entire watershed, including that portion downstream of NFS lands (page D-1).*
- *Existing wildlife habitat was identified using timber stand exams (page III-153).*
- *Field reviews were used to further identify goshawk-nesting areas (page III-61).*
- *Surveys for Coeur d’Alene salamanders found populations in Lewelling Creek. In addition, later surveys found several potential habitat sites...(page III-172).*

Use of past monitoring, surveys and other studies is further demonstrated throughout Chapter III (and other sections) of the FEIS by numerous references; for example,

- *USDA Forest Service, 1998. Idaho Panhandle National Forest Plan Monitoring and Evaluation Report*
- *Lider and Techau, 1994. Taft Bell Sediment and Fisheries Monitoring Project*
- *Lukens, Bjornn and Van Gundy, 1976. Wolf Lodge Creek Cutthroat Trout Studies*
- *Rieman and Apperson, 1989. Status and analysis of salmonid fisheries: Westslope cutthroat trout synopsis and analysis of fishery information*
- *USDA 1998a. Fuels Management – 1987/88 Douglas-fir Beetle kill sites, fuel accumulation survey and risk implications*
- *Zack, 1995. Northern Idaho Forest Ecosystems: Historic conditions and current trends in Forest Succession, Fire, Timber Harvest, and Landscape Pattern*
- *Lockman and Gibson, 1998. Trip report on visit to various locations on Kootenai National Forest regarding Douglas-fir bark beetle infestations*
- *USDA Forest Service, 1996. Status of the interior Columbia basin: summary of scientific findings*
- *USDA Forest Service, 1998. Northern Region Overview – Detailed and Summary Reports*
- *ICDC, 2001. Rare plant occurrence records*
- *Lichthardt, 1998. Monitoring of rare plant populations on the Clearwater National Forest*
- *Lorain, 1990. Field investigations of Botrychium (moonworts) on the Idaho Panhandle National Forests, Idaho Dept. Fish & Game*

Clearly, field surveys and monitoring of past activities were used in the effects analysis for the Iron Honey project.

Comment Letter 10

John C. Pickard provided a list of broad concerns and reasons he opposes the Iron Honey project. He had not indicated an interest or commented earlier in the process. His letter provided almost identical comments to Comment Letters 03, 04, 05, 06, 08, 11, 13, 16 and 17, but voices specifically his opposition to clearcuts: “A plan to clearcut virtually 1919 acres of forested land. Any clearcut is unacceptable, especially where flooding occurs regularly.” There are no clearcuts under the Selected Alternative. Virtually all of the harvest will be accomplished using the shelterwood with reserves method. Under this method, some trees are retained throughout each unit for the purposes of regeneration, shade, and snag habitat. Harvest will occur on approximately 1,408 acres in a total of 11 harvest units located within the Iron and Solitaire Creek drainages (an additional 230 acres of selective harvest will occur in order to gather wood to be used in stream restoration activities). These 1,408 acres represent 13% of the Iron Creek watershed, 15% of the Solitaire Creek watershed, 31% of the face drainages of the Upper Little North Fork Coeur d’Alene River, and 7% of the total acres in the Iron Honey Resource Area.

As stated earlier, effects to water were measured at three scales, and there is no measurable tie between the harvest in this proposal and increased flooding. At the smallest scale at which watershed effects were analyzed, there is the potential for slight increases in sediment and peak flow over the short term – so slight as to not be measurable by a gauging station. Since the increases in sediment and peak flows are so slight as to not be measurable at the Little North Fork Coeur d’Alene River above Skookum Creek, there is no way that project activities could result in flooding or movement of heavy metals. No physical response would extend to or be measurable in the Coeur d’Alene River or Coeur d’Alene Lake. No effects would reach the Spokane River or Upper Columbia River.

Over the long term, sediment delivery would be substantially reduced under the Selected Alternative, leading to an increase in streambank stability (FEIS, page III-71). The watershed benefits from improvement activities such as road obliteration and instream improvements are greater than the potential impacts from management activities (FEIS, page III-70).

Comment Letter 12

John Bentley has been an active participant throughout this project, provided comments orally and in writing, indicating he is opposed to the Iron Honey proposal. Mr. Bentley previously commented on the project on behalf of the Kootenai Environmental Alliance; his recent letter appears to have been made as an individual. Mr. Bentley's comments do not raise new issues, but provides additional discussion as to his earlier concern related to erroneous information on fires risk, and sources of sediment. I will address his comments on fire risk first and then cover the subject of sediment sources.

Mr. Bentley contends that this area of the Coeur d'Alene basin is a moist area, and therefore does not pose a high-risk hazard of intense uncontrolled wildfires. His assertion is correct that it is indeed a moist area, and that contention is supported throughout the vegetation and fire discussions in the FEIS. However, to assume that a moist area is not at risk of stand replacing fires is contrary to all of the evidence provided in the FEIS, that tiers to and includes by reference the Interior Columbia Basin Ecosystem Assessment, the Coeur Geographic Assessment, and other relevant scientific findings, such as those quoted by Mr. Bentley from A Wildfire Hazard Risk Assessment for the Coeur d'Alene River Ranger District. The point being that moist areas such as the Coeur d'Alene basin burn with stand replacing wildfire intensities on a cycle of 90 to 150 years, and when they do so, those fires cover 100's to hundreds of thousands of acres, which is evidenced by the age structure and fire history sampling in this area. There is no "created illusion" that this risk is present, it is a fact of the conditions on the analysis area and the disturbance regimes that have led to today's forests.

Mr. Bentley also contends that while the contributions of the existing road system to peak flow changes are adequately acknowledged, the IPNF "are strangely silent on any contribution to peak flows caused by overstory removal. The FEIS describes the changes to peak flows using the Watsed model and qualitative discussions throughout the Watershed section. These discussions adequately address the minor changes to flows at the tributary scale, and show why these minor changes do not translate to measurable changes further downstream. This finding is confirmed by the Idaho Department of Environmental Quality. During discussions with the DEQ about TMDL's on the North Fork, Geoff Harvey has stated on numerous occasions that his investigations do not show a positive correlation between forestry practices in this basin and measurable changes in peak flow downstream (at gauging stations such as the one at Enaville).

Another point that Mr. Bentley makes is that there is "no evidence or information submitted that quantifies...stream crossings (as a) source of this sediment". This statement seems to be geared toward the contention that the FS is concentrating their analysis on roads and crossings as sediment sources, and ignoring the potential sources caused by peak flow changes. All potential sources are addressed in the FEIS, some are recognized as much more impactful, such as culvert and road failures, than other sources, such as instream erosion potentially exacerbated by minor changes in peak flows. On the ground observations have consistently pointed to crossing failures and washed out riparian roads as being the major producer of the sediment that has degraded the streams in the analysis area. It would be short-term folly to ignore the vegetation conditions that need to be rehabilitated, in favor of concentrating on only the sediment-producing aspects of the ecosystem.

Comment Letter 14

Don Pischner commented on behalf of the State of Idaho House of Representatives District 4-B (Kootenai, Shoshone and Benewah Counties), and made oral comments during several of our public presentations. He expressed his support of the active forest management represented that will occur under the Iron Honey project, and included a copy of "Western Legislative Forestry Task Force Resolution 01-1," endorsing the concepts incorporated in the Iron Honey project and urging its implementation under Alternative 8.

Comment Letter 15

C. Richard Sams provided comments on behalf of the Coeur d'Alene Area Chamber of Commerce, urging implementation of Alternative 8 based on anticipated economic and environmental benefits of harvest and regeneration and benefits of watershed restoration activities. He had not provided comments earlier in the process, although the Coeur d'Alene Chamber was represented at one of our public presentations in Wallace.

Comment Letter 18

Gwen P. Fransen provided comments on behalf of the Idaho Department of Environmental Quality (DEQ). Earlier comments were received from the Idaho DEQ after review of the DEIS from Diane Riley (Air Quality Management Unit, Boise) and June Bergquist (Water Quality Compliance, Coeur d'Alene). Ms. Fransen provided a summary of the "North Fork Coeur d'Alene Sub-basin Assessment and TMDLs," which includes a sediment TMDL for the entire North Fork Coeur d'Alene River, and concludes that "if all mitigation is completed in a timely manner, there will be a net reduction of sediment, consistent with IDAPA 58.01.01.054, which requires no increase or a net decrease of the pollutant of concern." She further states, "While Alternative 6, which contrasted to Alternative 8, offers a more desirable restoration package...we believe both Alternatives 6 and 8 are consistent with the TMDL. Even with these restoration efforts, further sediment reduction in this watershed may be necessary until beneficial uses are fully supported." Ms. Fransen also identified three remaining concerns with Alternative 8 that are discussed below:

First, she expressed concern with the potential for stream sedimentation from the reconstruction of 30 miles of unused roads. She suggests further minimizing the amount of roadwork necessary for timber harvest. The Idaho DEQ did not identify this issue as a concern in their previous written comments. Approximately two-tenths of a mile of new road will be built for timber removal; this road will be high on the hillslope, well away from stream channels, and is not expected to impact streams (FEIS, page III-32). Approximately 29 miles of road reconstruction will occur under the Selected Alternative, consisting of brushing (removing trees growing in the roadbed), blading, shaping and replacing an estimated 21 culverts. The effects of this work are accurately analyzed in the FEIS, and described in this decision document.

Secondly, Ms. Fransen expressed concern with harvesting of trees within Riparian Conservation Areas, stating, "Although not currently listed as impaired due to temperature, data indicates that the Little North Fork does not meet the State temperature criteria. Additional riparian harvesting should be minimized to reduce further contribution to this impairment." The Idaho DEQ did not identify this issue as a concern in their previous written comments. The riparian harvest that the DEQ refers to where a proposed temporary road crosses a Riparian Habitat Conservation Area (RHCAs), and vegetative disturbance could occur along 165 feet of riparian area. There are over 78 miles of stream within the Iron Honey Resource Area. Harvest activities in 165 feet represents less than 4/100ths of one percent of the total streamside area, and does not represent a substantial impact to the watershed. Effects of harvest related activities on stream temperatures are addressed in the FEIS on page III-53: "The small amount of riparian harvest, in combination with its localized effect, would not result in a significant cumulative effect..." and in Appendix D, page 11: "Research has documented that the single greatest means of increasing stream temperature is to remove that portion of the riparian vegetation that blocks direct solar radiation. The Iron Honey project activities would not impact existing stream temperatures."

And thirdly, Ms. Fransen expressed concern with the potential for livestock grazing in restored riparian areas. She recommends that cattle be excluded from newly replanted riparian areas during the re-growth phase. Livestock grazing in riparian areas is addressed in a separate analysis, our Draft Grazing EA, on page 67. The issue of grazing was addressed briefly in the FEIS (page A-4), and grazing was considered in the cumulative effects analyses. "Direct effects to stream conditions as a result of grazing would consist of localized areas of bank trampling and erosion, primarily in the lower reaches of Iron and Hudlow Creeks. Cumulative effects could include delayed vegetative recovery in portions of the riparian area, but would not affect overall stream conditions (Draft Grazing EA, p. 70). Regarding effects of grazing on soils, the following statement is made: "The livestock use has not resulted in any concern for soils in the allotment (Range Monitoring Results, 2550 Soil Surveys, October 2, 2001)," (FEIS, page III-135).

Comment Letter 19

Kathy Zanetti provided comments on behalf of the Shoshone Natural Resources Coalition, supporting the decisions of the Forest Service in regard to managing the Iron Honey Resource Area, based on the need for active forest management. She also explained her reasons for not supporting Alternative 1 (the No-Action Alternative), again based on the need for active forest management. She had not provided written comments earlier in the process, but participated during presentations to the Shoshone Natural Resources Coalition.

Comment Letters 20, 21, and 22

Three separate comment letters were received from three people (Mike Mihelich, Susan Weller and Barry Rosenberg) stating that their comments were on behalf of the Kootenai Environmental Alliance (KEA), in addition to representing other organizations:

- *Mike Mihelich provided comments on behalf of KEA and The Lands Council. (John Bentley also submitted earlier comments on behalf of the KEA, but his recent letter appears to represent himself as an individual.) He previously submitted comments during scoping and after review of the DEIS on behalf of KEA. Jeff Juel of the Ecology Center had commented earlier on behalf on The Lands Council.*
- *Susan Weller provided comments on behalf of the KEA as well as the Coeur d'Alene Audubon Society. She did not submit any previous comments on the project, and no one else submitted earlier comments on behalf of the Audubon Society.*
- *Barry Rosenberg is the third person to provide comments on behalf of KEA, and states he is also commenting on behalf of The Lands Council and Idaho Sporting Congress. He did not submit any previous comments on the project. As stated earlier, Jeff Juel of the Ecology Center had previously commented on behalf on The Lands Council; Idaho Sporting Congress did not submit any earlier comments.*

Because these three people all state they are commenting on behalf of KEA and all used the KEA letterhead, we will respond to their comments as if they were one entity. Most of the issues identified were raised in KEA's earlier letters, and responded to in the FEIS (pages A-7 through A-13). Those concerns which were responded to in the Draft and FEIS documents will not be repeated here - we have focused our response on those issues not addressed earlier or where additional discussion is provided.

Mr. Mihelich (Comment Letter #20) provided additional discussion of the stewardship contract, TMDL, soil, and grazing issues. He states, "The Iron Honey FEIS does not mention or discuss the issue of Stewardship contracts that are planned as part of the proposed logging. This is in spite of information that was released by the Forest Service to members of Kootenai Environmental Alliance (KEA) and the Lands Council (TLC) on November 8, 2001 during the Iron Honey field trip. The complete lack of any information, analysis and data regarding Stewardship Contracts and the Iron Honey FEIS is a significant NEPA issue...The lack of Stewardship Contract Information in the FEIS requires that a Supplemental FEIS be written."

As Mr. Mihelich pointed out, members of the project interdisciplinary team openly discussed the possibility that stewardship contracts could be used to implement the project. In describing when activities could occur, it was also noted in the Summary of the Iron Honey Resource Area (page 13) that "The project team is looking at using a "stewardship" contract to implement timber sales and accomplish sale-related restoration work. Under this type of contract, virtually all of the watershed restoration work (such as removing and upgrading culverts, or obliterating and recontouring sections of road) is done by the timber sale purchaser before or at the same time as the timber harvest. This is different from our standard contract, where the timber harvest occurs first (with only a portion of the necessary road work), generating funds that are used to contract the watershed restoration work. Using the stewardship sale contract could change the schedule for implementation and accomplishment."

The use of stewardship contracts is not "part of the proposed logging." Stewardship contracts are part of project implementation, and have no bearing on the project proposal or analysis of effects to the environment. NEPA does not require analysis of how a timber sale contract is implemented, only that it is implemented so that activities occur as designed to ensure effects are within the scope of those predicted during analysis. Effects of implementing restoration activities before or concurrent with other project activities was analyzed (and in fact recommended) in the analysis of effects to aquatic resources: "If the aquatic resource improvement work can be implemented prior to harvest activities, it can be expected that the erosional

processes in both headwaters and lower reaches will be reduced and that a trend toward recovery would be initiated more rapidly than leaving conditions as described under Alternative 1 (FEIS, page III-33).

Mr. Mihelich asserts, "The Supplemental FEIS must include language that indicates whether the 1998 Idaho Administrative code, as cited on page 79, Chapter III of the FEIS, supersedes TMDL regulations found in 40 CFR 130.7 and Section 303(d) of the Act." He further states, "The Act does not allow for a net increase in the pollutant of concern (sediment). The Forest Service's statement in the FEIS, at A-16 of Appendix A, that Section 303(d) allows for an increase in pollution to an impaired water body such as the main stem of the Little North Fork Coeur d'Alene River is not accurate."

KEA did not identify this concern in their earlier comments. Gwen P. Fransen (Idaho Department of Environmental Quality) provided a summary of the "North Fork Coeur d'Alene Sub-basin Assessment and TMDLs," which includes a sediment TMDL for the entire North Fork Coeur d'Alene River, and concludes that "if all mitigation is completed in a timely manner, there will be a net reduction of sediment, consistent with IDAPA 58.01.01.054, which requires no increase or a net decrease of the pollutant of concern." She further states, "While Alternative 6, which contrasted to Alternative 8, offers a more desirable restoration package...we believe both Alternatives 6 and 8 are consistent with the TMDL."

Mr. Mihelich identifies concerns related to soil loss and compaction, stating, "Logging with conventional ground-based equipment will cause unusually large amounts of soil compaction because of the very large areas to be treated. Removing over 26 million board feet of timber will further degrade soils and impact soil productivity. The loss of the A Horizon for soils that have trees or equipment dragged through them is likely, but the long-term impacts of this action are not disclosed." He expresses concern that site-specific analysis and testing apparently has not been done, and lists a number of "protocols" to be tested, with references supporting his information.

The soils issue is discussed in detail in Section V.D of this decision, including measures designed to protect soils, and mitigation measures to reduce effects to soils.

It is refreshing that the references listed in Mr. Mihelich's comment letter are some of the same sound scientific findings used to support the Upper Columbia River Basin, Coeur d'Alene River Basin Geographic Assessment, Northern Region Snag Protocol, Inland Native Fish Strategy, and Soil Wood Guidelines. It is ironic, however, that Mr. Mihelich concludes, "...we have cited numerous studies that look at decay rates, soil productivity, the relationship of soil organisms, bryophytes, fungi, arthropods and lichens to the soil resource. With the exception of a brief mention of mycorizal fungi, none of these are discussed in the FEIS," (page 16 of his comments). In fact, these references are the basis for the protective measures described in the FEIS (pages II-20 through II-28) and in this decision document (Section V.D.).

Mr. Mihelich contends, "the FEIS fails to adequately consider the cumulative effects of the effects of this project on livestock grazing. Through this project, a considerable amount of additional "range" will be created through logging and road building." The amount of range available for livestock grazing is not created through timber harvest and road building. Grazing is permitted on an allotment basis. Activities under the Iron Honey project will not change the existing allotment nor add any new allotments. The issue of grazing was addressed briefly in the FEIS (page A-4): "It is anticipated that the alternatives will have very little, if any, effect on the movement or management of the cattle because there are so few cows using the area and most of their use follows the riparian areas." Grazing was also considered in the cumulative effects analyses. "Direct effects to stream conditions as a result of grazing would consist of localized areas of bank trampling and erosion, primarily in the lower reaches of Iron and Hudlow Creeks (USDA Forest Service, 2001, Draft Grazing EA, pp. 66-67). Cumulative effects could include delayed vegetative recovery in portions of the riparian area, but would not affect overall stream conditions. In terms of water quality, nutrient loading and pathogens would not decrease and could inhibit support of beneficial uses, including cold-water biota and salmonid spawning (USDA Forest Service, 2001 Draft Grazing EA, p. 70). Regarding effects of grazing on soils, the following statement is made: "The livestock use has not resulted in any concern for soils in the allotment (Range Monitoring Results, 2550 Soil Surveys, October 2, 2001)," (FEIS, page III-135).

Susan Weller's concerns (Comment Letter #21) relate to specific information in the FEIS that she believes is inaccurate. She states there are inaccuracies in the FEIS portrayal of the status of Neotropical birds. Page III-188 of the FEIS describes in the first paragraph under Existing Conditions that these species are in general

decline, as the Respondent also claims, but also describes that there seems to be a species shift toward less desirable species such as cowbirds. Taken out of the context of this entire paragraph, the specifics of which species are declining and which are increasing makes it seem that this information is contrary to commonly held assumptions on the status of these species.

Ms. Weller also discussed her own knowledge of bald eagle presence along the North Fork during breeding season. Any sighting information of bald eagles along the North Fork is valuable to the Forest Service, and would be used for assessment of effects if a project were proposed in that area. However, our records do not show presence where the Iron Honey project could affect them along the Little North Fork (FEIS III-157).

Ms. Weller contends that logging activities may cause silt to enter the North Fork, inhibiting eagle fishing success. The cumulative effects analysis for Aquatics (FEIS III-73) describes no discernable increase in siltation, and the Biological Assessment for Bald Eagles describes no discernable effect to Bald Eagles or their habitat (which includes foraging capabilities), on the North Fork, which is considered outside any potential cumulative impacts.

She further contends the discussion on black-backed woodpeckers is inaccurate, particularly in the woodpecker's use of Douglas fir habitats that may not be accurately described in the FEIS. The contention is that these Douglas fir habitats dominate the project area, and therefore should be considered as abundant habitat for black-backed woodpeckers. The last paragraph on page III-90 of the FEIS describes the Resource Area as having only 15% in a Douglas fir cover type, and the dry habitats on only 5%. This is part of the basis for the statement on FEIS III-169: "The Iron Honey Resource area is inherently low in habitat for the black-backed woodpecker because of the lack of lodgepole pine and larch," because although this species may use Douglas-fir habitats, they are also lacking in the Resource Area. There is also some suggestion in Ms. Weller's statement that nesting habitat, and over-mature trees were lacking, which further supports our position that there is a lack of habitat for this species.

Ms. Weller contends that the analysis on fragmentation and black-back's use of young stands and logged areas is flawed, and there are also statements that the current methods of forest management are misguided. This is a personal opinion, which is countered by the science that has been applied in the formulation of the proposal, the alternatives to the proposal, and the effects analysis that is based on the best available science. Since the Iron Honey area lacks the potential of habitats for the black-backed woodpecker, it would not be the location to promote this species.

She questions why white-headed woodpeckers are not addressed in the FEIS. Because of their habitat similarities, white-headed woodpeckers and flammulated owls are addressed together throughout the Wildlife Section of the FEIS, starting with the Existing Condition for these two species on page III-171.

Ms. Weller contends that the best references for managing goshawks were not listed or used in the analysis of that species. She lists specific references that are only several of the 315 references utilized in the creation of Management Recommendations for the Northern Goshawk (1992) which is referenced on page III-161, and used throughout the FEIS to promote protection of this species and its habitat. It is also interesting to note that Ms. Weller claims that logging has been shown to disturb this species and cause reduced occupancy rates of habitat, while in fact at least two of the three analyzed home ranges on this heavily logged area are currently occupied by nesting pairs, based on recent survey results.

Ms. Weller states that the "USFS has no idea if viable populations of any of the species mentioned" exist on the Coeur d'Alene River Ranger District. The design of this project and the Biological Assessment are founded on providing habitat capable of sustaining viable populations of these species. The Biological Assessment was reviewed by the US Fish and Wildlife Service, and that regulatory agency concurred with our findings.

Ms. Weller noted that Audubon is listed as one of the organizations to receive a copy of the FEIS, and protests that they did not. Even though no one from Audubon Society indicated an interest in the proposal, we felt it was important that they receive information related to the project, since early information indicated that the proposed activities could potentially impact old growth. Copies of the Draft and Final EIS's were sent to Liz Sedler, who had in the past been identified as the area representative for Audubon. Now that comments have been received from Susan Weller identifying herself as the representative for Audubon

Society, she will be on the project mail list to receive all future mailings related to this project.

Mr. Rosenberg (Comment Letter #22) identifies several concerns related to wildlife, including Threatened, Sensitive, and Management Indicator Species (MIS). Many of his comments acknowledge our analyses, but express disagreement with our methodology and findings.

Mr. Rosenberg asserts we have failed to incorporate scientific findings for snag guidelines into our document, and have failed to meet Forest Service guidelines for snags. Item 7.(b) (FEIS page III-193) in Consistency with the Forest Plan and other Applicable Regulatory Direction states "Snag requirements for the Iron Honey analysis area are described in Chapter II... Based on these features, snag management would meet or exceed the requirements identified in the Forest Plan". This statement can be made because the guidelines quoted are set forth in the Northern Regional Snag Management Protocol, which is based on the current scientific findings, and this protocol promotes leaving more snags than are required by Forest Plan standards.

He maintains the Forest has failed to monitor Management Indicator Species (MIS) and to disclose population trends of old-growth MIS. He disagrees with the science we've used in our analysis. Mr. Rosenberg further contends that we have failed to meet Forest Service old-growth guidelines. The old-growth (and replacement old growth) issue was raised by KEA in Mike Mihelich's comments on the DEIS, which is responded to in the FEIS (page A-13). Management indicator species are monitored as Item F-1 in the Forest Plan Monitoring report. Since this item is done on a 5-year reporting schedule, the 1998 Report included this monitoring which discloses trends for MIS. The reliability, standards, and guidelines pertaining to old growth have been questioned in several of our recent proposals. Because of this, and the fact that the IPNF is beginning the process of revising the Forest Plan, the District has initiated a process to review the status of stands that may qualify as old growth. Several stands in the Iron Honey area meet some of the criteria to qualify, and a decision was made to make modifications to the preferred alternative to remove these areas from harvest consideration until the review is completed for the District.

Mr. Rosenberg requests that we consider the Ecology Center's January 25, 2000 letter to the Forest Supervisor as part of his comments on the FEIS. He also refers to and asks that we include as part of his FEIS comments "Attachment 1 of the appeal of the East Slate ROD submitted by the Ecology Center, Alliance for the Wild Rockies, and the Lands Council, which is a Declaration submitted in the Lands Council v. Vaught federal court action against the IPNF and the Colville National Forest." In his comments on the Iron Honey DEIS (and several other projects on which he commented) Jeff Juel requested that his January 25, 2000 letter to former Forest Supervisor Dave Wright be incorporated as comments (FEIS, page A-26). The Forest Supervisor has consistently responded that such an approach to public comment is insufficient and does not meet the requirements for commenting on Forest Service proposals, which requires "specific facts or comments along with supporting reasons that the person believes the Responsible Official should consider in reaching a decision," (36 CFR 215.6[b]). Mr. Juel was also advised that many of the concerns he raised in his January 25, 2000 letter are more appropriately addressed at the Forest Plan scale or at even a more broad scale. Mr. Juel was asked to respond as specifically as possible to project level proposals.

This same rule applies to the inclusion of other comments as requested by Mr. Rosenberg. His comments need to be specific to the project under consideration. "Comments on an environmental impact statement or on a proposed action shall be as specific as possible and may address either the adequacy of the statement or the merits of the alternatives discussed or both," (40 CFR 1503.3[a]). Incorporating another's comments on an unrelated project is insufficient.

Mr. Rosenberg points out that the mitigation sections in the FEIS were incorrectly numbered, and asserts that a Supplemental FEIS needs to be done "so the public has the correct wildlife mitigation information." The information presented was accurate regarding mitigation measures to reduce effects to wildlife. In the printed copies of the FEIS, pages II-27 and II-28 were simply reversed. Although momentarily confusing, this minor error does not warrant a Supplemental FEIS, especially in light of the fact that representatives of KEA were provided a copy of the document on compact disk (in which the pages were correct). A supplement to an environmental impact statement is appropriate if there are substantial changes to the proposed action that are relevant to environmental concerns, or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts (Forest Service Handbook 1909.15, Chapter 18, part 18.2). No such changes or circumstances exist in relation to the Iron Honey FEIS at this time.

Mr. Rosenberg notes that the mitigation measures call for Unit 6 to be surveyed prior to unit layout, and states that the FEIS fails to disclose whether that has been done. A call response survey was completed in the early summer of 2001, in and around Unit 6. There was a positive response to the calls, about a half mile west of Unit 6. Another survey in the spring of 2002 will be undertaken to pinpoint nest locations, and the identified mitigation measures for nesting stands that are discussed in the FEIS will be implemented during layout of Unit 6. In addition, a nesting pair responded to personnel working in the south half of Unit 10. Because of the potential location of this nest, that portion of Unit 10 will be eliminated from harvest consideration in the Record of Decision, in keeping with the mitigation measures for nest protection.

He further contends that the FEIS violates guidelines under Forest Service Manual 2621.3(1) and (3), "to define area of sufficient size to allow adequate evaluation of the cumulative effects on MIS and an analysis of all management activities and collective effects on the distribution and abundance of habitat in space and time, on vegetation succession and natural disturbance regimes." He states there is no indication where project subdivisions would be located, their size, and whether this mitigation technique is scientifically plausible, and goes on to state that the subdivisions would be inadequate (apparently regardless of their size and location), because the cumulative effects on wildlife discusses the West Gold Creek timber sale and the Douglas-fir Beetle project activities to be ongoing and coinciding with the Iron Honey project once initiated.

Use of subdivisions is not a new tool in land management planning, and is often recommended by wildlife biologists as a means of reducing disturbance to wildlife. The Wildlife Biologist suggested that the Iron Honey area be subdivided into 3 approximately equal divisions, and always retain at least one of these in an undisturbed condition during forest management activities. This mitigation is adopted in the ROD and is used routinely and effectively on other Forest Service projects. For example, the Horizon Forest Resource Area Record of Decision (USDA Forest Service, 1991) used sale division boundaries in implementing activities. Actual location of subdivisions was not identified at the time of the FEIS because their boundaries would depend upon which alternative was selected for implementation and whether there were any modifications. Subdivisions will be identified and addressed under the timber sale contract.

Despite his acknowledgement of other ongoing activities under other projects, Mr. Rosenberg also states, "Therein the FEIS further fails to take into consideration and analyze cumulative effects of the Savant Sage Timber Sale post-sale, West Gold Creek Timber Sale and post Douglas-fir Beetle Project activities, violating NEPA regulation 40 CFR 1508.7." As described in the FEIS and in this decision document, effects of activities and events that have already occurred are represented in the description of existing conditions. Ongoing or reasonably foreseeable activities are listed in the FEIS on page II-11, and were considered in the cumulative effects analysis as appropriate for each resource. These include activities under the West Gold Creek Timber Sale, among others. Anticipated effects of this sale were taken into consideration (for example, on page III-190). reference to the Douglas-fir Beetle EIS on page III-190 is used to describe beetle activity in the Iron Honey Resource Area, and the cumulative effects of post-sale activities under the Douglas-fir Beetle EIS project (in adjacent areas – no activities were planned in the Iron Honey Resource Area as a result of the Douglas-fir Beetle project).

Mr. Rosenberg also states that the FEIS "fails to provide an extended cumulative effects area map as was done to the Aquatic section, p. III-9. This would enable the public to view the concurrent cumulative effects of the West Gold Creek Timber Sale (north of the project area) and Douglas-fir Beetle project (west of project area) that lie adjacent to the Iron Honey Analysis Area." The FEIS (page III-150) explains, "For each species analyzed in this chapter, the cumulative effects area has been determined based on the species or guilds relative home range size in relation to its available habitat, topographic features (watershed boundaries) which relate to how species move and utilize their home ranges, and boundaries that represent the furthest extent of effects. Maps depicting wildlife habitat by species are provided in the Project Files ("Wildlife")." Representatives of KEA (John Bentley and Mike Mihelich) have reviewed these project files on multiple occasions and have had full access to these maps. It is not feasible to print these maps in the EIS because of the large area they cover. If reduced to a size that would fit in the document, the features would not be readable.

Mr. Rosenberg contends that the Iron Honey project violates NFMA (36 CFR 219.19), which requires habitat to be well distributed across a planning area. He particularly questions the adequacy of surveys, incorporation of "scientific findings," and wildlife monitoring, and states, "The FEIS does not disclose if the

IPNF is meeting old growth standard 10(b), which requires the FS to 'Maintain at least 10 percent of the forested portion of the IPNF as old growth.'" He later briefly questions the adequacy of the short- and long-term effect definitions in relation to the fisheries analyses.

This shotgun approach seems to be directed at the sufficiency of the analysis techniques used to disclose a number of effects determinations. The best available science was used in the analysis of effects, and at times this science was more protective to species than Forest Plan standards. These variances are discussed where they occur. Some of his contentions seem to be questioning the methodologies set forth in the Forest Plan and other adopted protocols. These issues are outside the scope of this site specific project.

Mr. Rosenberg notes that the FEIS is "tiered" to several documents, but "fails to identify what components and information is being used and how to analyze issues and concerns. He specifically identifies the failure to adopt ICBEMP recommendations and standards outlined in the Interior Columbia Basin FEIS's proposed decision. Until there is Record of Decision that finalizes direction currently set forth as recommendations in ICBEMP, the science behind these recommendation are used as the best available information. If a decision is rendered on the ICBEMP project, it is likely to result in amendments to the current Forest Plan standards, which would then be followed. Those portions of the science of ICBEMP that were applied to this project are those that are discussed in the Coeur d'Alene Geographic Assessment, as the next scale of down. This information is discussed throughout the FEIS.

Mr. Rosenberg states, "The FEIS is not user-friendly and littered with reference errors, map legend errors, and pages not being in numerical order...thereby violating NEPA 40 CFR 1502.24: The Forest Service cannot make a reasoned decision as to the environmental impacts of a proposed action where information contained in an EIS is incomplete or inaccurate...A Supplemental FEIS needs to be done in order to correct these errors that would allow for proper public review and participation."

As acknowledged earlier, there were instances of reversed pages, and typographic errors (primarily in Chapter II). The reversed pages may have been momentarily confusing, but such a minor error does not warrant a Supplemental FEIS, especially in light of the fact that representatives of KEA were provided a copy of the document on compact disk (in which the pages were correct). Regarding the errors in the comparison of alternatives in Chapter II (most of which are obvious because the numbers simply don't add up correctly to equal the total), a closer look reveals that the correct information is provided in Chapter III. A supplement to an environmental impact statement is appropriate if there are substantial changes to the proposed action that are relevant to environmental concerns, or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts (Forest Service Handbook 1909.15, Chapter 18, part 18.2). No such changes or circumstances exist in relation to the Iron Honey FEIS at this time.

Mr. Rosenberg describes several concerns related to water quality, quantity and fish. He states, "There is no justification for any further logging and road construction in the Little North Fork of the Coeur d'Alene River drainage given the history of abusive logging and road construction that has occurred within the last 50 years. The implementation of Alternative 8 will contribute additional sediment to the affected streams and thus will violate the Clean Water Act." He further disagrees with the modeling and methodology used in the analysis of effects to aquatics, for example, WATSED limitations, criteria related to equivalent clearcut areas, and lack of monitoring data related to sediment produced by rain-on-snow events.

I believe that Mr. Rosenberg is not looking at the entire array of problems in the analysis area. The Objectives section of the FEIS Purpose and Need (pages I-2 to I-4) describe an ecosystem out of sync with its historical range of variability. This includes work needed to rehabilitate the forests and the streams. I have reflected the tradeoff between creating short-term effects and long-term recovery in my Record of Decision, and will not violate the Clean Water act in choosing the Selected Alternative. Consistency with the Clean Water Act is discussed on FEIS page III-79. In addition, the Idaho Department of Environmental Quality has submitted comments that agree with our determination, based on our cooperative work on TMDL's for the North Fork of the Coeur d'Alene River.

Mr. Rosenberg states, "It is our contention that the increase of ECAs from the implementation of Alt 8 will increase the risk of flooding and increase the risk of toxic contamination to Lake Coeur d'Alene and the Spokane River. The FEIS acknowledges that there will be an increase in water yields and peak flows over

their already high levels in all of the drainages proposed to be logged. The existing levels are significantly higher than under natural conditions and currently contribute to the excessive flooding of the Coeur d'Alene River Basin. Comments of a similar nature were submitted by John Bentley, and our responses are attached to Comment Letter #12, above.

Mr. Rosenberg lists a number of reasons KEA believes the FEIS does not adequately consider the cumulative watershed effects, including rain-on-snow impacts, in-channel and streambank erosion, aggradation of sediment; it wrongly interprets the significance of WATSED, does not clearly define short- and long-term nor fully consider the short-term effects on aquatic biota; does not do sufficient and specific evaluations of the impacts of previous, ongoing, and proposed timber sales; and does not acknowledge the relationship between bedload aggradation and the increase in stream temperatures. In reviewing each of these concerns, I find that all of these topics are address adequately in the FEIS (Chapter III - Aquatics, and in the response to comments in Appendix A).

Mr. Rosenberg asserts, "The FEIS is in violation of the IPNF Forest Plan because it does not apply the Fry Emergence Success standard. This standard is still in effect until it is amended. We do not agree with the FEIS when it states the adoption of INFS replaces that standard." Mr. Rosenberg lists 3 other Forest Plan water and fish standards with which KEA believes the FEIS does not adequately demonstrate compliance: Standards 1, 2, and 6. He further contends, "The FEIS Alt 8 proposes to build roads within the Riparian Habitat Conservation Areas...This violates INFS because the FEIS does not demonstrate how these activities will maintain and improve the attainment of the Riparian Management Objectives." In the EIS, Section 3.2.5 Consistency with Forest Policy and Legal Mandates adequately addresses these issues. This section was bolstered in the FEIS due to similar comments on the DEIS.

Comment Letter 23

Duane Hopkins provided comments indicating he is opposed to the Iron Honey project, but did not provide specific concerns to which we can respond.

#01 FEIS-34



Natural Resources Committee

~~501 Government Way~~

~~C-9800~~

Coeur d'Alene, Idaho ~~83814-1932~~

Kootenai County

Latah County

Shoshone County

Benewah County

7 Dec 2001

Joe Stringer, District Ranger
U. S. Forest Service
Idaho Panhandle National Forest
3815 Schreiber Way
Coeur d'Alene Idaho 83814

Re: Iron Honey Reforestation Project

Dear Mr. Stringer:

Thank you very much for the presentation you and your "crew" made Wednesday, at the Four County Natural Resources Committee meeting. It was very informative and really appreciated by all in attendance.

While a few of the members had to leave early, I have no doubt a motion to endorse the project would have passed without objection. In any case, you can add my name to your list of supporters. It is exciting, at least for me, to see a project that seeks to re-introduce White Pine back into North Idaho.

Thank you again for your kindness in presenting this program. Please keep us informed on the progress of the project, or any other information you care to share with us.

Sincerely,

Don Johnston, Chairman
Four Cnty Natrl Resc Comm

#02

December 15, 2001

Joseph Stringer, District Ranger
Coeur d'Alene River Ranger District
2505 E. Sherman Ave.
Coeur d'Alene, ID 83814

RE: Cancellation of the Iron Honey Timber Sale

Dear Mr. Stringer;

No. 1; You need to cancel this proposed welfare timber sale because the environmental degradation resulting from destructive logging will be unacceptable.

No 2.; You need to set your timeframes on public comment on a better schedule. The December 31st deadline looks like you intend to conceal this entire issue by using the time of year as a cover!

No. 3; If the Forest Service performed its job in the public interest, we wouldn't need all these citizen groups looking over its shoulder!

Thank you for terminating the Iron Honey sale.

Sincerely,



Brad Chinn
1319 West Dean Ave.
Spokane, WA 99201-2014

December 16, 2001

Joseph Stringer
District Ranger
Coeur d'Alene River Ranger District
2505 East Sherman Avenue
Coeur d'Alene, ID 83814

#03

Dear Mr. Stringer,

Thank you, for the opportunity for to comment on the Iron Honey Timber Sale. I hope you enjoyed your Holiday Season, and hope you had an opportunity to play in the North Idaho Snow.

It is nice to know that the Forest Service is finally talking about restoring this watershed. The Iron Honey area is already heavily roaded and heavily logged, for example, 69% of the forests in the area are less than 100 years old and there are 9 miles of road per square mile in the project area. Winter rain-on-snow floods are aggressively erosive, with higher flow velocities over shorter time intervals.

During winter floods the tailings-bearing sediments are scoured from the channel, eroded from the banks, deposited on the floodplain and carried into and across CDA Lake and on to the beaches of the Spokane River as far down as Lake Roosevelt (as observed during the winter flood of 1996). Multiple-storm winter floods include those of 1917, 1933, 1961, and 1982. Single-storm winter floods include those of 1946, 1951, 1964, 1974, 1980, 1990, 1995, 1996, and 1997. Lake CDA and the Spokane River feed one-third Spokane Valley/ Rathdrum Prairie aquifer (the sole source drink water for nearly half million residents of the Spokane area).

With the Coeur d'Alene Basin Cleanup in the near future, how can Forest Service insure that this project will not help destroy 359 million dollars worth of cleanup work?

I can only support Alternative #6 and even that alternative needs modification so that it doesn't damage soils from heavy equipment. I would like the Forest Service to know they cannot heavily log 1,919 acres to fix this watershed. This logging will only cause more problems, not fix the watershed.

Happy New Year,



Rein Attemann
2211 W. Ohio
Spokane, WA 99201

December 16, 2001

Joseph Stringer
District Ranger
Coeur d'Alene River Ranger District
2505 East Sherman Avenue
Coeur d'Alene, ID 83814

#04

Dear Mr. Stringer,

Thank you, for the opportunity for to comment on the Iron Honey Timber Sale. I hope you enjoyed your Holiday Season, and hope you had an opportunity to play in the North Idaho Snow.

It is nice to know that the Forest Service is finally talking about restoring this watershed. The Iron Honey area is already heavily roaded and heavily logged, for example, 69% of the forests in the area are less than 100 years old and there are 9 miles of road per square mile in the project area. Winter rain-on-snow floods are aggressively erosive, with higher flow velocities over shorter time intervals.

During winter floods the tailings-bearing sediments are scoured from the channel, eroded from the banks, deposited on the floodplain and carried into and across CDA Lake and on to the beaches of the Spokane River as far down as Lake Roosevelt (as observed during the winter flood of 1996). Multiple-storm winter floods include those of 1917, 1933, 1961, and 1982. Single-storm winter floods include those of 1946, 1951, 1964, 1974, 1980, 1990, 1995, 1996, and 1997. Lake CDA and the Spokane River feed one-third Spokane Valley/ Rathdrum Prairie aquifer (the sole source drink water for nearly half million residents of the Spokane area).

With the Coeur d'Alene Basin Cleanup in the near future, how can Forest Service insure that this project will not help destroy 359 million dollars worth of cleanup work?

I can only support Alternative #6 and even that alternative needs modification so that it doesn't damage soils from heavy equipment. I would like the Forest Service to know they cannot heavily log 1,919 acres to fix this watershed. This logging will only cause more problems, not fix the watershed.

~~Happy New Year,~~

Teya Kuhle
2211 W. Ohio
Spokane, WA 99201

North 16916 Dartford Drive
Spokane, WA 99208

December 15, 2001

Joseph Stringer, District Ranger
Coeur d'Alene River Ranger District
2505 East Sherman Avenue
Coeur d'Alene, ID 83814

Dear Mr. Stringer:

As you are aware, many of us here in the Spokane area are concerned about the Spokane Valley / Bathdrum Prairie aquifer which is the sole source of our drinking water. We ourselves drink well water.

The Iron Honey already is heavily roaded and logged, and winter floods erode the area. No matter what short term gain is achieved by logging and timber sales, it cannot possibly be worth the risk that it holds. We do not believe that the Forest Service can insure that this timber sale will not destroy the 350 million dollars of cleanup of tailings-bearing sediments. The risk is NOT worth the money!

We believe logging will result in more damage to the watershed and, ultimately, to our aquifer! The timber sale on the Little North Fork of the Coeur d'Alene will transport during flooding heavy metals to our precious water supply! Please deny the sale!

Yours truly,

Mr. and Mrs. J. E. O'Halloran

FEIS-42
#06

THE LAW OFFICES OF TOM P. MAY, P.S.
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CD'A RIVER R.D.

Friday, December 14, 2001

Joseph Stringer District Ranger
Coeur d'Alene River Ranger District
2505 East Sherman Avenue
Coeur d'Alene, ID 83814

Re: Iron Honey Timber Sale

Dear Mr. Stringer,

Thank you, for the opportunity for to comment on the Iron Honey Timber Sale.

The Iron Honey area is already heavily roaded and heavily logged, with 9 miles of road per square mile in the project area. Winter rain-on-snow floods are happening today and happen regularly. The public, my children, and I are tired of your agency polluting our lake and river and killing the flora and fauna. During winter your induced floods scour and erode the tailings-bearing sediments from the channel banks depositing them on the floodplain and carrying them into and across CDA Lake and onto the beaches of the Spokane River as far down as Lake Roosevelt (witness the winter flood of 1996).

Our sole source Spokane Valley/ Rathdrum Prairie aquifer is at risk. Thus only Alternative #6 comes close assuming you change it so that it doesn't damage soils from heavy equipment. I would like the Forest Service to know they cannot heavily log 1,919 acres to fix this watershed. This logging will only cause more problems, not fix the watershed.

Sincerely,

By: 
Tom P. May, Attorney at Law

cc. Litigation Council

#07

Dear Mr Stringer,

12-17-01

I used to swim in the North Fork (of the Coe River) in the 1920s & 30s. At that time the river kept a good volume of water all summer. Then after World War II & logging began on a large scale, the river has never been the same. Not to mention the sediment & erosion caused by logging & roads. I hope the Iron Honey Timber Sale is not old growth forest. Too little is left as it is. And I hope Wash. D.C. isn't pressuring you rangers to cut, cut, cut. If they are, resist.

Doris Gerhart

Doris Gerhart
12108 E 21st Ave.
Spokane, WA 99206

December 18, 2001

Joseph Stringer
District Ranger
Coeur d'Alene River Ranger District
2505 East Sherman Avenue
Coeur d'Alene, ID 83814

#08

Dear Mr. Stringer,

Thank you, for the opportunity for to comment on the Iron Honey Timber Sale. I hope you enjoyed your Holiday Season, and hope you had an opportunity to play in the North Idaho Snow.

It is nice to know that the Forest Service is finally talking about restoring this watershed. The Iron Honey area is already heavily roaded and heavily logged, for example, 69% of the forests in the area are less than 100 years old and there are 9 miles of road per square mile in the project area. Winter rain-on-snow floods are aggressively erosive, with higher flow velocities over shorter time intervals. During winter floods the tailings-bearing sediments are scoured from the channel, eroded from the banks, deposited on the floodplain and carried into and across CDA Lake and on to the beaches of the Spokane River as far down as Lake Roosevelt (as observed during the winter flood of 1996). Multiple-storm winter floods include those of 1917, 1933, 1961, and 1982. Single-storm winter floods include those of 1946, 1951, 1964, 1974, 1980, 1990, 1995, 1996, and 1997. Lake CDA and the Spokane River feed one-third Spokane Valley/ Rathdrum Prairie aquifer (the sole source drink water for nearly half million residents of the Spokane area).

With the Coeur d'Alene Basin Cleanup in the near future, how can Forest Service insure that this project will not help destroy 359 million dollars worth of cleanup work?

I can only support Alternative #6 and even that alternative needs modification so that it doesn't damage soils from heavy equipment. I would like the Forest Service to know they cannot heavily log 1,919 acres to fix this watershed. This logging will only cause more problems, not fix the watershed.

Happy New Year,



Steve Bradburn
26 Heron Loop
Republic, Wa. 99166

The Ecology Center, Inc.

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December 21, 2001

#09

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

Mr. Stringer;

These are comments on the Iron Honey Final EIS, on behalf of the Ecology Center.

Our June 5, 2000 letter commenting on the Draft EIS stated:

We 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 DEIS. Please place a copy of that letter in the Project File as responsive to your request for comments on this DEIS. The contents of the letter are based upon many years of experience in the public involvement process on the Coeur d'Alene River Ranger District, the IPNF and the national forests of the region as a whole.

The Forest Service's response was essentially that our January 25 2000 letter was totally irrelevant to the Iron Honey proposal:

In the past two years, Mr. Juel has made similar requests to incorporate letters he had written to Forest Supervisor David Wright regarding his desires for management of the National Forest. The Forest Supervisor has consistently responded that such an approach to public comment is insufficient, and does not meet the requirements for commenting on Forest Service proposals, which requires specific facts or comments along with supporting reasons that the person believes the Responsible Official should consider in reaching a decision (36 CFR 215.6(b)). Most recently, Mr. Juel was advised that many of the concerns he raised in his January 25, 2000 letter are more appropriately addressed at the Forest Plan scale or at even a more broad scale (letter to Jeff Juel from Forest Supervisor David Wright dated February 11, 2000). Mr. Juel was asked to respond as specifically as possible to project level proposals.

Our June 5, 2000 letter went on:

As one example of an issue the DEIS does not adequately discuss that is mentioned in our 1/25/2000 letter, consider cumulative impacts on soils. The Forest Plan requires the DEIS to disclose the locations of Activity Areas in the project area which do not meet Forest Plan Standards for detrimental conditions.

The FEIS still fails to disclose the numerical amount of existing detrimental conditions in the various Activity Areas (cutting units) contemplated under each alternative. The FEIS states:

Past harvest has occurred within some of the proposed harvest units. ...There are 116 acres that do not meet the Forest Plan Soil Quality Standards. These acres were harvested prior to establishment of Forest Plan soil protection guidelines. (FEIS at III-129.)

Likewise the FEIS states on III-130 – 131:

Under Alternative 3, 20 units (116 acres) are proposed where existing conditions may not meet Forest Plan soil quality standards. Existing conditions are marginal in one 5-acre unit. Of the twenty units that do not meet the standards, 17 are the result of past road construction which is situated either above or below the unit or both. As stated in R-1 Supplement 2500-99-1, the roads are part of the District's system travelways and are not a disturbance factor.

So the FEIS suggests in one breath that these 17 units don't meet the Standards, and in another says they do. Which is true? In this regard, all we are asking is that the Forest Service does what the Standards legally require you to do, which is tell us what the percent detrimental impacts are in each proposed Activity Area (cutting unit), which by definition doesn't include areas covered by roads. When the Forest Service obfuscates simple answers to simple questions, we can only conclude that the Forest Service is hiding the truth.

How can the FS disclose compliance with the Forest Service Manual (FSM) 2500- R-1 Supplement no. 2500-99-1 (the same thing as compliance with Forest Plan Standards) for Iron Honey project activities if the FS is presently unaware of the amount of cumulative damage past logging activities have caused in the proposed cutting units?

In regards to the FS assumption that maintaining soil productivity is achieved simply by limiting detrimental disturbance to no more than 15% of an Activity Area (cutting unit), the scientific adequacy of this methodology for maintaining soil productivity on the IPNF has never been demonstrated. The FS's determination that it may permanently damage the soil on 15% of an activity area and still meet NMFA and planning regulations is arbitrary. The FEIS does not cite any scientific basis for adopting the 15% numerical limit.

In addition, a problem with the 15% Standard is that it fails to consider soil productivity **outside** the Activity Areas of the timber sale at hand. And merely showing that a proposed project will not permanently damage any more than 15% of cutting units means that soil damage that has caused severe or significant reductions in soil productivity on past cutting units, roads, landings, firelines, etc. can simply be dismissed without consideration.

The problems with this approach can easily be illustrated by information from the neighboring Kootenai National Forest's Forest Plan Monitoring and Evaluation reports. From the KNF's Fiscal Year 1997 report: "The FY 92 Monitoring Report stated that 49% of the surveyed acres, to that point, were beyond the Plan variability (15%) limits." Their Monitoring Reports also disclose that detrimental soil disturbance had exceeded the 15% limits since 1992, although at a reduced frequency. A major deficiency of the Iron Honey FEIS is that it fails to disclose the number of acres within the project area or within a logically defined cumulative effects area that have detrimental soil damage. The FEIS doesn't even disclose the boundaries of past Activity Areas (cutting units) within which the amount of detrimental soil impacts have been measured or estimated to be above 15%. Nor does the

FEIS disclose the existing degree of detrimental soil disturbance within the boundary of **any** previously established Activity Area.

The FEIS discloses that past logging has caused detrimental disturbance of soils in the proposed cutting units. But it fails to disclose whether the boundaries within which this damage has been measured have been kept consistent. Without consistent boundaries, there can be no real meaning to the 15% Standard. Without keeping Activity Areas constant, the FS can propose to log a past Activity Area that has even 100% detrimentally disturbed soils, as long as it expands the boundary of the Activity Area to include enough acres of undisturbed forest so that the total percentage is 15% or below!

The only way for there to be any meaning to the 15% Standard in cases where logging is proposed over previously disturbed soils and the boundaries have been moved is if the FS actually does adequate site-specific surveys to measure the existing percentages of soil disturbance within the boundaries of the new Activity Area. Based upon the waffling language in the Iron Honey FEIS, this apparently did not happen. The FS must undertake site-specific surveys for each proposed unit, surveys that include taking objective, numerical measures of soil disturbance, since numerical data is needed to demonstrate compliance with the 15% Standard.

And as alluded to above, even if the FS were to maintain constant Activity Area boundaries, merely following the FSM 2500-99-1 methodology means the FS never has to even consider, during project planning and review such as for Iron Honey, the soil conditions in old cutting units or in areas that have experienced soil damage from other causes such as natural or prescribed fire, cattle grazing, natural or management-induced landslides, off-road vehicle use, or even from a high density of roads in a given watershed. Where there might be severely damaged soil conditions with critical restoration needs outside proposed cutting units in the Iron Honey project area, the FSM 2500-99-1 methodology allows the FS to ignore them.

NEPA regulations mandate that EISs analyze cumulative impacts, which are defined:

"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 impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 C.F.R. § 1508.7).

The true meaning of "cumulative impacts" in NEPA terminology is never broached! It is inexplicable that the FEIS would fail to consider cumulative effects on a resource as important and valuable as the soils in the project area.

Another problem with the FS's methodology of only meeting its 15% Standard is that the meaning of "soil productivity" in the terminology of NFMA is largely ignored. The FS, in FSM 2500-99-1, claims that "Soil quality is maintained when erosion, compaction, displacement, rutting, burning, and loss of organic matter are maintained within defined soil quality standards." But even if the FS were to meet the 15% Standard in all Activity Areas forestwide, and even if the soil conditions of land outside Activity Areas could reasonably be ignored, the FS still cannot assume that there has been no "significant or permanent impairment of the productivity of the land" as NFMA requires.

Soil productivity can only be assumed to be maintained if it turns out that the soil Standards work. To determine if they work, the FS would have to undertake objective, scientifically sound measurements of what the soil produces (grows) following management activities. But the FS has never done this on the IPNF.

It is reasonable to expect that in order for the FS to assure that soil productivity is not being significantly impaired, to assure that the forest is producing a sustained yield of timber, for one example, tree growth must not be significantly reduced by soil-disturbing management activities. Grier and others (1989), in a Forest Service General Technical Report, adopted as a measure of soil productivity: "the total amount of plant material produced by a forest per unit area per year." And they cite a study where "a 43-percent reduction in seedling height growth in the Pacific Northwest on primary skid trails relative to uncompacted areas" for example. And in another Forest Service report, Adams and Froehlich (1981) state:

Measurements of reduced tree and seedling growth on compacted soils show that significant impacts can and do occur. Seedling height growth has been most often studied, with reported growth reductions on compacted soils from throughout the U.S. ranging from about 5 to 50 per cent.

Adams and Froehlich (1981) also provide reasons why impacts beyond the directly compacted 15% of an area must be considered in any reasonable definition of soil productivity:

Since tree roots extend not only in depth but also in area, the potential for growth impact also becomes greater as compaction affects more of the rooting area. In a thinned stand, for example, you can expect the greatest growth impacts in residual trees that closely border major skid trails or that have been subject to traffic on more than one side of the stem."

In other words, when an Activity Area reaches 15% detrimentally impacted soils via compaction, tree growth **outside the skid trail**, or beyond the 15% compacted area, is affected.

To their credit, the Northern Region recognizes that the Standards must be validated. FSM 2500-99-1 requires that Forest Supervisors must:

- Assess ... whether (soil quality standards) are effective in maintaining or improving soil quality;
- Evaluate the effectiveness of soil quality standards and recommend adjustments to the Regional Forester; and
- Consult with soil scientists to evaluate the need to adjust management practices or apply rehabilitation measures.

This all implies that monitoring must be undertaken. Furthermore, FSM 2500-99-1 recognizes that soil productivity is defined not merely in terms of the absence of meeting the 15% standard. "Soil Function" is defined thus:

Primary soil functions are: (1) the sustenance of biological activity, diversity, and productivity, (2) soil hydrologic function, (3) filtering, buffering, immobilizing, and detoxifying organic and inorganic materials, and (4) storing and cycling nutrients and other materials.

And "Soil Quality" is defined as "The capacity of a specific soil to function within its surroundings, support plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation."

Neither soil function nor soil quality, as FSM 2500-99-1 defines it, have ever been monitored on the IPNF following management activities. The IPNF Forest Plan, in violation of NFMA, fails to require measures of "site quality."

The FEIS also relies on a memo from the Regional Forester (Bosworth, 2000), the purpose of which was to provide guidance on interpreting FSM 2500-99-1. The Bosworth, 2000 memo makes a number of assumptions, including:

- 1) Heavy ground pressure equipment, such as dozers and rubber tired skidders, will create detrimental compaction if they travel over the same piece of ground three or more times.
- 2) Low ground pressure equipment, such as mechanical harvesters with tracks, which generally operate with a ground pressure rating of 8 pounds per square inch or less, will not create detrimental compaction if their operations are dispersed across the activity area.
- 4) Disturbance of soil and duff caused by dispersed mechanical harvester tracks generally does not cause detrimental impacts.

The first Bosworth assumption is directly contradicted by two scientific studies, one in particular (Cullen and others, 1991) was carried out on the neighboring Kootenai NF and the nearby Flathead NF. The authors concluded: "This result lends support to the general observation that most compaction occurs during the first and second passage of equipment." And Page-Dumroese (1993), in a Forest Service research report investigating logging impacts on volcanic ash-influenced soil in the Idaho Panhandle National Forest, states, "Moderate compaction was achieved by driving a Grapppler log carrier over the plots twice." She also cited other studies that indicated: "Large increases in bulk density have been reported to a depth of about 5 cm with the first vehicle pass over the soil." And for similar soils in northwestern Quebec, Brais and Camire (1997) found that "On fine- to medium-textured soils, half of the effects on the 0- to 10-cm and 10- to 20-cm mineral soil bulk densities and half of the changes in the 10-cm depth soil strength occurred in the course of the first two skidding cycles."

The Bosworth, 2000 memo does not cite scientific support for that first assumption, nor for the other two assumptions (#2 and #4) cited above. In regards to the second assumption, regarding the use of low ground pressure equipment, Adams and Froehlich (1981) state, "Unfortunately, little research has yet been done to compare the compaction and related impacts caused by low-pressure and by conventional logging vehicles."

Another problem with the FS's soil monitoring is that it fails to measure soil productivity in terms of loss of soil nutrients due to logging activities, including removal of boles, branches, and from site preparation methods such as burning. From Grier and others (1989):

The potential productivity of a site can be raised or lowered by management activities causing a permanent or long-term increase or decrease in the availability of nutrients essential for plant growth.

...Any time organic matter is removed from a site, a net loss of nutrients from that site also occurs. In timber harvesting or thinning, nutrient losses tend to be proportional to the volume removed.

...Slash burning is a common site preparation method that can affect soil chemical properties tremendously. A great deal of controversy is often associated with using fire because of the wide variety of effects, some of which are definitely detrimental to site quality and some of which are beneficial.

The FSM 2500-99-1 Regional soil Standards, adopted in 1999, superceded similar Standards issued in 1994. Both versions of these Regional Standards required implementation and effectiveness monitoring. But the Iron Honey FEIS fails to cite the results of the monitoring, required by the Regional Soil Standards, that provides a clear basis for assuming the Regional Soil Standards actually protect soil productivity.

Adams and Froehlich (1981) state: "While general field observations can be useful in recognizing severe compaction problems, measurement of actual changes in soil density permits the detection of less obvious levels of compaction." It is these "less obvious levels of compaction" that are missed by much of the soil monitoring the FS has performed.

For a study done on the adjacent KNF and the nearby Flathead NF in Montana, soil scientists measured soil bulk densities, macropore porosities, and infiltration rates using paired observations of disturbed vs. undisturbed soils. They discovered that although "the most significant increase in compaction occurred at a depth of 4 inches... some sites showed that maximum compaction occurred at a depth of 8 inches... (and) "Furthermore, ... subsurface compaction occurred in glacial deposits to a depth of at least 16 inches." (Kuennen, Edson, and Tolle, 1979.) There is simply no way that the FS has enough soil bulk density and other compaction monitoring data collected at the adequate soil depths and in enough sites to be able to assure that the use of heavy machinery, as prescribed by the Iron Honey FEIS, will not significantly or permanently impair the productivity of the soil.

In interpreting the requirements of NEPA, the federal courts have evaluated the adequacy of mitigation measures that EISs rely upon. An environmental impact statement must present a "reasonably complete discussion of possible mitigation measures." Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351 (1989). In relying upon inadequate mitigation measures to protect soils, the Iron Honey FEIS fails to meet this judicially specified test of compliance with NEPA regulations.

Graham and others (1994) cited in the EIS is the FS's guidance toward leaving sufficient amounts of large pieces of wood following logging operations. Please disclose the results of all past monitoring performed on the Coeur d'Alene River Ranger District to check implementation of the Graham, et al. 1994 coarse woody debris guidelines.

Objectives of FSM 2500-99-1 include: "To meet direction in the National Forest Management Act of 1976 and other legal mandates. To manage National Forest System lands under ecosystem management principles without permanent impairment of land productivity and to maintain or improve soil quality." The major problems cited thus far regarding these Regional Standards (FSM 2500-99-1), the IPNF Forest Plan, and the IPNF's monitoring methodology could have been avoided if the FS had opened up its process of adopting the Standards and methodologies to public and scientific peer review. NFMA implementing regulations and NEPA require the FS to have done so. Clearly, the adoption of the Northern Region's major soil Standards, FSM 2500-99-1, was never subject to public review nor peer-reviewed by independent scientists.

Again, the FS has legal mandates to do far more than they have for protecting soils on the IPNF. Sec. 6. Section 6 of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, states:

"(g) As soon as practicable, ... the Secretary shall ... promulgate regulations, under the principles of the Multiple-Use, Sustained-Yield Act

of 1960, that set out the process for the development and revision of the land management plans, and the guidelines and standards prescribed by this subsection. The regulations shall include, but not be limited to--
"(3) specifying guidelines for land management plans developed to achieve the goals of the Program which--
"(E) insure that timber will be harvested from National Forest System lands only where--
"(i) soil, slope, or other watershed conditions will not be irreversibly damaged;

NFMA implementing regulations of the Act states, at 36 C.F.R. § 219.27:

- (a) Resource protection. All management prescriptions shall--
 - (1) Conserve soil and water resources and not allow significant or permanent impairment of the productivity of the land;
 - (b) Vegetative manipulation. Management prescriptions that involve vegetative manipulation of tree cover for any purpose shall--
 - (5) Avoid permanent impairment of site productivity and ensure conservation of soil and water resources...

The Forest Service did not follow the planning regulations in adopting the Regional Standards, therefore compliance with the 36 C.F.R. planning regulations and the NFMA Act itself are not demonstrated with the Iron Honey FEIS, which proposes further soil disturbance on areas already subjected to past soil-damaging activities.

We also asked in our January 25, 2000 letter, incorporated as comments on the Iron Honey DEIS and ignored as irrelevant by the Forest Service:

For every project proposal, it is important that the results of past monitoring be incorporated into planning. All Interdisciplinary Team Members should be familiar with the results of all past monitoring pertinent to project areas, and any deficiencies of monitoring that have been previously committed to. For that reason, we expect that the following be included in the NEPA documents or project files:

- A list of all past projects (completed or ongoing) implemented in proposed project areas.
- The results of all monitoring done in those project areas as committed to in the NEPA documents of those past projects.
- The results of all monitoring done in proposed project areas as a part of the Forest Plan monitoring and evaluation effort.
- A description of any monitoring, specified in those past project NEPA documents or the Forest Plan for proposed project area, which has yet to be gathered and/or reported.

If the results of past monitoring are uncertain to the degree new proposals would constitute unwarranted risks, such proposals should be shelved until monitoring results are conclusive.

So we are now asking, why are the results of past monitoring (monitoring of both past project impacts and general forest plan impacts) not relevant to the managers now proposing similar logging projects?

Our January 25, 2000 letter, incorporated as comment on the DEIS, contains many other discussions of issues and concerns directly applicable to the Iron Honey logging proposal, all of which have been essentially ignored.

Our comments on the DEIS stated:

The EIS must disclose the District's methodology for maintaining viable populations of old growth species in the project area and forest-wide.

The Forest Service responded, "A forest-wide assessment of populations is outside the scope of this project." However, others in the Forest Service disagree with such a position. In their response to comments on the Dry Fork Vegetation and Recreation Restoration Project Environmental Assessment, Lewis & Clark National Forest, 2000, the Forest Service acknowledges that viability is not merely a project area consideration, that the scale of analysis must be broader:

Population viability analysis is not plausible or logical at the project level such as the scale of the Dry Fork Vegetation and Recreation Restoration EA. Distributions of common wildlife species as well as species at risk encompass much larger areas than typical project areas and in most cases larger than National Forest boundaries.

Scientific research that supports our contention that viability can only be assessed at a scale larger than the Iron Honey project area for most species was included in our January 25, 2000 letter, incorporated as comments on the Iron Honey DEIS, which you have thus far chosen to ignore.

We asked that you disclose what your method was for maintaining viable populations of old growth MIS, you replied that you assess condition of MIS habitat and cite court precedents. The FEIS disclosed that the Old Growth Management Units included in the Project Area do not meet the Forest Plan 5% distribution Standard. Also, "The Iron Honey Resource Area has a low percentage of old growth primarily due to historic timber harvest" (FEIS at III-90). The FEIS fails to disclose that the IPNF is not meeting its 10% forestwide Standard. The FEIS's analysis, instead of relying upon showing us the acres of old growth well-distributed and inadequate amounts across the Forest, as the Forest Plan requires and as the court precedent you cite requires, presents opaque, scientifically inadequate habitat analyses. Again, the Forest Service obfuscates, avoids the truth, and proposes to blindly and carelessly bring species closer to the brink of extirpation.

Furthermore, the FEIS states that there is "allocated" old growth, but we have learned via the NEPA process for the Small Sales project, that "allocated" old growth often fails to meet the criteria as actual, effective old growth. Therefore, please disclose the results of the comparison all allocated old growth in the project area to the Northern Region criteria.

In response to comments, the FEIS states:

The amount of potential old growth would increase by 800 acres under Alternatives 5 and 7, or by 1,380 acres under Alternatives 2, 6, and 8.

The FEIS fails to cite the results of any scientific research that validate the rather outlandish claim that logging produces old growth. Old growth is not a "product" of narrowly-conceived

human management actions, it is the result of many decades of stochastic processes functioning in essentially unmanaged forest land.

“Today, old growth on National Forest lands within the Coeur d'Alene sub-basin ... tends to be fragmented by past timber harvest” (FEIS at III-88). The FEIS fails to disclose the implications such fragmentation has for old growth dependent species. The failure to analyze impacts on fragmentation and biological corridors represents a failure to ensure the conservation of species listed as threatened or endangered under the Endangered Species Act. Section 2(c), U.S.C. 1531(1) of the ESA requires that the Forest Service “shall seek to conserve endangered and threatened species and shall utilize their authority in furtherance of the purposes of this chapter.” Similarly section 7(a)(1), 16 U.S.C. 1536(3) of the ESA requires that federal agencies shall further the purposes of the ESA by “carrying out programs for the conservation of endangered and threatened species.”

Habitat fragmentation may result in smaller and more isolated wildlife populations, particularly for species with demanding habitat needs, such as old growth. Smaller populations are more vulnerable to local extinction, due to stochastic events (Gilpin and Soule 1986). Smaller populations are also more susceptible to the negative effects of inbreeding depression. Hence, maintaining landscape connectivity is essential to allowing for the replenishing of populations and expansion of the gene pool (Noss 1983, 1987, 1992; Noss and Harris 1986; Craighead and Vyse 1995; Paetkau et al. 1997; Beir 1993).

As our January 25, 2000 letter to the Forest Supervisor pointed out, researchers have discovered reduced habitat use from fragmentation and/or recommend minimizing fragmentation or emphasizing connectivity to avoid further impacts on: lynx, wolverines, goshawks and various wildlife species including the above.

Comments on the DEIS also raised the issue that the use of timber stand database queries in order to identify suitable habitat for MIS and TES species is inadequate. The response to comments ignores these concerns, even though the concerns have been expressed in an IPNF Forest Plan Monitoring and Evaluation Report!

Fragmentation may substantially alter the microclimate of forests edges as well as interiors (i.e. radiation, wind, and water fluxes). Fragmentation also increases the isolation of forest patches (Eng 1998) and thus reduces the habitat value for old growth species.

The following fragment parameters determine the degree to which this augmented isolation will affect wildlife populations and ecosystem properties: remnant size and shape, time since isolation, distance from other remnants or an unfragmented block, connectivity, nature of the surrounding habitat (dissimilarity between remnant and surrounding habitat) (Saunders *et al.* 1991). While it is important to consider the impacts of fragmenting individual patches of forest, the most essential analysis may be considering the pattern created on the landscape by a sequence of cutting operations (Franklin and Forman 1987).

As fragmentation and degradation of habitat expands, more populations are forced to assume metapopulation structures. Metapopulations are assemblages of local populations sustained by a balance of extinction and colonization (Hanski 1994; Hanski and Gilpin 1997). Metapopulation viability is maintained through the migration of individuals between patches of habitat. Hence, while the individual patches may not be utilized as habitat consistently, their habitat integrity is essential

to the long term viability of the population (Harrison and Voller 1998). Thus, it is essential to understand the population structure and habitat use in the project area. Analysis should include consideration of the role of dispersal, recolonization, and gene flow in sustaining the population. While many populations do not fit the basic metapopulation model, many populations correspond to modified metapopulation models such as source-sink populations, patchy populations, and non-equilibrium populations (Harrison 1991). Analysis should thoroughly assess the population structure in the analysis area:

It is especially important that cumulative effects analyses, which extend beyond the direct effects of individual management actions, examine ecological consequences within the metapopulation. By considering how management actions affect metapopulation structure, the analysis will further explore how a proposed action affects the persistence of local populations (Ruggiero, Hayward, and Squires 1994).

The premise of similarity between the fragmentation induced by logging and that associated with natural disturbance has been called into question in recent years, even by the FS.

As the impacts on landscape connectivity and distribution and size of core areas clearly differ between logging and natural disturbance regimes, and since the FEIS fails to discuss viability in the light of the landscape's highly fragmented (by logging and roads) condition, the FEIS's conclusion that the FS is maintaining wildlife species viability is simply not supported.

While appellants acknowledge that the threshold for effective landscape connectivity is not well understood, this lack of thorough understanding should compel caution in manipulating landscape:

While a significant body of research has demonstrated the deleterious effects of habitat fragmentation, work examining critical thresholds of habitat connectivity has lagged behind. For several species, Population Viability Analysis (PVA) has been employed to estimate minimum viable populations as well as the amount of habitat necessary to support a minimum viable population (MVP) (Shaffer 1978, 1981, 1987, Gilpin and Soule 1986). Yet few similar analyses have been done explicitly to demonstrate minimum thresholds of connectivity for adequate protection of species. The scientific debate over the efficacy or even necessity of species corridors is a reflection of this problem (Simberloff and Abele 1976, Simberloff et al. 1992). However, since habitat fragmentation has been shown to contribute to population declines, by inference some degree of "lack of fragmentation", or habitat connectivity, should help ensure long-term species survival (Noss 1987, 1992, Beier 1993, Noss et al. 1996) (Walker and Craighead 1997).

And while we acknowledge that models of wildlife corridors are frequently developed theoretically, the use of data such as habitat quality and topography, makes such models invaluable in understanding the landscape habitat needs of species. The lack of empirical data must not preclude consideration of the importance of potential wildlife corridors. Due to the difficulty of observing natural migration (as radio collars and other techniques may not adequately capture natural movements), the lack of

empirical observations should not excuse a lack of thorough consideration of the project's potential impact of the functionality of the area as a wildlife corridor.

Well-developed corridor models have been developed for the Northern Rockies and should be incorporated in the EIS. A GIS based model, developed by the Craighead Environmental Research Institute and American Wildlands, of migration corridors in the Northern Rockies utilizes the following three criteria: 1) habitat quality; 2) amount of forest and shrub/grassland interface; and 3) road density (Walker and Craighead 1997, see <http://www.grizzlybear.org/condesign.htm>). As corridors are a landscape scale concept, they are often most effectively addressed through large-scale conceptual analysis of habitat, rather than anecdotal sightings of animals in the specific locale.

The importance of maintaining landscape connectivity and the threats to landscape connectivity associated with management actions are summarized in a 1996 resolution of the Society of Conservation Biology:

WHEREAS the Northern Rockies region in western Montana, northern Idaho, and northwestern Wyoming is a landscape which has been interconnected by large tracts of forested habitat for thousands of years, and

WHEREAS this forest matrix still is largely intact as evidenced by remote sensing, landcover mapping, and other large scale analyses, and

WHEREAS radio-telemetry data for various wildlife species has demonstrated that forest carnivores and their prey move within portions of this habitat matrix at present, and genetic data indicate that significant gene flow has occurred throughout the region during the past 10,000 years or so, and

WHEREAS forest carnivores, their prey, and other species using this landscape have been demonstrated to avoid areas of human activity and habitat alteration to varying degrees, and such human activities and developments have reduced the amount of habitat available to these sensitive species, and

WHEREAS the unprotected habitat for these species within these ecosystems is continually being removed by human alteration, leaving the possibility of protecting larger single blocks of intact habitat adequate to maintain viable populations of these larger carnivores increasingly improbable, and

WHEREAS current land management activities on Federal lands, and land use practices on private land, are further fragmenting these populations and insularizing the large core reserves in the Northern Continental Divide Ecosystem, the Greater Yellowstone Ecosystem, and the Salmon-Selway Ecosystem

THEREFORE BE IT RESOLVED that the Society for Conservation Biology affirms that increasing fragmentation of existing wildlife habitat (particularly that of forest carnivores) and increasing isolation of protected

reserves is detrimental to the maintenance of biodiversity in the Northern Rockies of Montana, Wyoming, and Idaho.

BE IT FURTHER RESOLVED that the Society supports the maintenance of existing forested habitat linkages in a natural state, and with limited human disturbance, to allow for the possibility of wildlife movement between the large protected core reserves in the Northern Continental Divide Ecosystem, the Greater Yellowstone Ecosystem, and the Salmon-Selway Ecosystem.

The failure of the EIS to adequately analyze impacts on biological corridors and from increasing fragmentation and loss of fully functioning interior forest habitat represents a violation of NFMA, NEPA, and the ESA.

The FEIS fails to provide any basis for its assumption that logging in upland habitat, away from riparian areas, will have NO EFFECT on the Sensitive Boreal Toad, even though the FEIS acknowledges that these amphibians can travel miles from their natal pond. Maxell (2000) discusses biology and management implications for Boreal Toads, and refers to Loeffler (1998) "for the recovery of toad populations in the Southern Rocky Mountains, reviews these and other general risk factors and provides management guidelines to mitigate their impacts."

The 1998 Forest Plan Monitoring and Evaluation Report calls for updated snag guidelines: "Apply snag and down woody material guidelines from the Upper Columbia River Basin Assessment to improve marten habitat" (p. 39). Although the Report doesn't state what those guidelines should be, we welcome the IPNF's acknowledgment of scientific evidence that refutes its inadequate guidelines. Bull et al., (1997) provide the following critique of the Thomas et al. (1979) guidelines, upon which the IPNF relies:

The guide most widely used in the past, Thomas and others (1979), prescribed the number of nest and roost trees to leave for specified woodpecker populations, but the number was based on a hypothetical, untested model and did not include any snags for foraging. Three studies (Baste 1995, Bull and Holthausen 1993, Dixon 1995) conducted in eastern Oregon have shown that retaining foraging structure is essential, in addition to nest and roost trees in managed landscapes. The Thomas model provided only two roost trees per pair per year, yet research has shown that individual pairs of pileated woodpeckers and white-headed woodpeckers use considerably more than two per year (Bull and others, 1992, Dixon 1995). Radio-telemetry studies have shown that home range sizes of pileated woodpeckers (Bull and Holthausen 1993), white-headed woodpeckers (Dixon 1995), and three-toed and black-backed woodpeckers (Goggans and others 1988) are considerably larger than those used in the Thomas model. Raphael and White (1984) found that the relation between numbers of snags and cavity nesters is not linear, which was assumed in the Thomas model. The substitution factor used in the Thomas model is variable and largely a function of snag density. Neitro and others (1985) thought allowing substitution of snags that reduced the number retained was not appropriate. The Thomas model did not take into account the habitat needs of some of the secondary cavity nesters, like bats and brown creepers, that use such snag features as loose bark. In addition, Bull and Holthausen (1993) found lower densities of pileated woodpeckers in nine

study areas than predicted by Thomas and others (1979) based on the number of snags present. The above studies present new data suggesting that some of the assumptions and data used in the Thomas model are not valid, and that the prescribed snag densities need to be revised upward. (Bull 1997, p. 28.)

Ideally, data would be available on the exact number of snags required to support specific populations of primary and secondary cavity nesters. Unfortunately, this kind of information is not available. We do know, however, that the snag numbers presented by Thomas and others (1979) are not adequate to support the populations intended because of a lack of foraging strata and invalid assumptions used in the model. If management agencies have an objective to manage for viable populations of woodpeckers, providing numbers of snags that have been shown to support viable populations in the recent studies would be prudent. (p. 29.)

Please keep each group on the list to receive all future communications regarding this proposal.

Sincerely,



Jeff Juel

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DEC 26 2001

CD'A RIVER R.D.

JOHN C & IRMA PICKARD

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Cataldo, Idaho 83810-0062

1.208.682.4249

E-mail: jipick@imbris.com

#10

December 21, 2001

District Ranger Joe Stringer
Coeur d'Alene Ranger District
2502 E Sherman Avenue
Coeur d'Alene, Idaho 83814

Re: Proposed Iron Honey Project

Dear Ranger Joe Stringer:

Being a thirty year resident of Cataldo, I am opposed to the above project for the following reasons:

1. A plan to clear-cut virtually 1919 acres of forested land. Any clear-cut is unacceptable especially where flooding occurs regularly.
2. There will be 16 units ranging from 46 to 327 acres, 12 of which are 75 acres or larger. A unit with bordered canopies will not alleviate rapid water run off.
3. An average of 70% canopy removal with the dbh being 11 – 13 inches totaling 27 million board feet. How many logging trucks will be involved and what is the impact of these trucks polluting the forests?
4. Additional hydro problems such as frequent flooding due to the loss of likely snow and moisture barriers, in the Enaville and Cataldo to Coeur d'Alene Lake areas.
5. The increased and rapidity sedimentation wash down. From polluted and contributing streams and banks and river bed of the Coeur d'Alene drainage along the North Fork of the Coeur d'Alene River which contains lead, arsenic, mercury, and other metals as listed throughout the Environmental Protection Agency's "Final Coeur d'Alene Basin Feasibility Study." Dated September and October of 2001. With the increased sedimentation load, from the proposed clear-cut, that will be co-mingled with the already polluted sedimentation in the Coeur d'Alene River, it will eventually reach the historically polluted Coeur d'Alene Lake as indicated in the Feasibility Study mentioned above
6. Flooding cannot be predicted with any degree of certainty. With the increased water load from the clear-cut activity flooding will occur more often along the Coeur d'Alene River. A canyon between Enaville and Cataldo contains the River. The River cannot spread out. Stakeholders' residencies are already in jeopardy because of River Load. With the increased water runoff, stakeholders will have frequent bed loading and increased volume hydrostatic encounters.
7. Impact studies of animals, residing in the Iron Honey timber sale, are not locatable for review. If this study is not already public, it should be and copies made available to the newspapers and individuals commenting on the proposed clear-cut such as myself. Please send a copy, to me, of this study as soon as possible.
8. Long-term expenses that will occur from the clear-cut could be dredging of the Coeur d'Alene River to rehabilitate it to its original condition. Have you considered this expense, and understand it will clearly out weigh any receipts from the clear-cut?

There is no record of this study. There are however, cost studies relating to the dredging of the Coeur d'Alene River.

Mr. Springer I must confess, when I first heard of the Iron Honey project two weeks ago, I was astonished. Part of my astonishment is wondering why project information was not made available last spring when meetings were held about rezoning Cataldo from a flood plain to a "flood way." To me this smacks of interagency conspiracy, thus allowing the U.S. Forest Service more latitude in the area of environmental control, not having to meet stringent regulations and impact statements within the Coeur d'Alene Drainage. Was the Cataldo rezoning request made by Kootenai County Commissioners, the EPA, and Corp of Engineers in order to enhance the clear-cut project?

Hoping you'll take time to answer my concerns and record my opposition to the Iron Honey Project, I remain,

Sincerely,



John C Pickard

Cc: Barry Rosenberg
Rogers and Toni Hardy
Mike Schlepp
Neil Beaver
Alliance for the Wild Rockies (AWR)

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DEC 27 2001

CD'A RIVER R.D.

December 21, 2001

Joseph Stringer
District Ranger
Coeur d'Alene River Ranger District
2505 East Sherman Avenue
Coeur d'Alene, ID 83814

#11

Dear Ranger Stringer,

I am concerned about the size of the proposed Iron Honey timber sale in the Little North Fork of the Coeur d'Alene River. To clear 70% of nearly 2000 acres of forest is asking for erosion problems and the feeding of yet more heavy metals into the superfund site and on into Washington State during flood events. As you know, lead and other metals are already present in the Spokane aquifer, however at EPA safe levels when no flood events are occurring. Flood events move more metals and could produce health problems to downstream users.

The North Fork watershed needs to be restored. Removing of large amounts of timber can only exacerbate an already difficult and dangerous situation.

Sincerely,



Eugene Kiver
22206 S Frog Hollow Ln
Cheney, WA 99004

Comments on the DEIS and FEIS of the
Iron Honey Resource Area Project

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DEC 27 2001

CO'A RIVER R.D.

I am critical of the Iron Honey FEIS primarily in three areas.

Fire:

First, the IPNF is very inconsistent in their evaluation of the fire risks involving the Iron Honey RA. They disclose an interesting trend when discussing this issue of fire. With some apparent reluctance, they refer to the Iron Honey Resource Area as having experienced very little large, stand replacing fire.

As an example, they state the following in the DEIS, in Paragraph III Existing Conditions, Environmental Consequences, Page 133, Existing Conditions in the Iron Honey Resource Area,

"Historically, the major disturbances in this area would have been fires that occurred at intervals of 50 to 200 or more years. Due to the generally moist conditions, stand replacement fires would be rare but occurred during periods of drought; especially when associated with high wind events. Low and mixed severity fires were common but would seldom remove canopies and regenerate stands."

Again, they say, on pages III-1 of the FEIS:

"Human-caused fires likely occurred from 1870 – 1930's as early miners (from Lake Pend Oreille) and Coeur d'Alene Basin settlers were active in and around the resource area, but these were not the major disturbances in the area. Overall, the major disturbances in this area would be timber harvest activity."

On this same page they further say,

"Because most of this area did not burn in the large fires of the late 19th and early 20th centuries,"

Both the DEIS and FEIS summarizes the Iron Honey habitat types as follows:

"The analysis area is dominated by moist habitat types (19,050 acres) of western hemlock, grand fir and western red cedar indicative of the heavy rainfall which occurs."

On page III-85 of the FEIS, they confirm the heavy stands grand fir (49 percent), hemlock (25 percent) and Douglas fir (12 percent) in the Iron Honey moist habitats by saying,

“Historically, these habitat types have had fire – free intervals of 50 to 130 years or more and stand replacing fire intervals of 90 to 150 years. (USDA, 1996)”

The Geographic Assessment of the Coeur d’Alene River Basin, issued on February of 1998, states that the average annual precipitation for Coeur d’Alene is 26 inches per year whereas the Deception Creek area (south of the Iron Honey RA) *“receive over 50 inches of precipitation per year.”* This volume of precipitation is confirmed, in the Project Files, for the Iron Honey area.

These quotes hardly appear to describe an extreme or even high fire risk area.

However, it appears when the IPNF wishes to create the illusion of a high fire risk, they refer to much larger landscapes such as the entire Coeur d’Alene River Ranger District, the Idaho Panhandle National Forest or the Interior Columbia Basin Ecosystem Management Project (ICBEMP) Forest Cluster #4. In these discussions of fire risks, there is no attempt to make the point that such discussions are very general and cover very broad or large geographies. Instead, by innuendo, they imply that the subject analysis area is in the same high fire prone state as warmer and drier portions of the northwest.

As an example, in the DEIS, Chapter II, page 9, the IPNF makes this very broad assertion.

“The primary risks to ecological integrity within Forest Cluster #4 are risks to hydrologic and aquatic systems from fire potential, risk to late and old growth structures in managed areas, and risks in forest compositions that are susceptible to insect, disease, and fire (Integrated Scientific Assessment, page 113)”.

The IPNF does not volunteer how large Forest Cluster #4 is, how representative it is to the Iron Honey habitat types or any other information that would establish a credible relationship between the ICBEMP report and the Iron Honey habitat.

The entire section of the FEIS, Fire/Fuels, Section 3.5 commencing on page III-136 goes into a long dissertation of forest fire generalities but does not refer specifically to the Iron Honey RA with one notable exception.

Perhaps the most contradictory risk assessment of the Iron Honey RA is now stated in a new disclosure made in the FEIS on page III-142.

"A Wildfire Hazard Risk Assessment for the Coeur d'Alene River Ranger District completed in 2001 (Jerome, 2001) confirmed that the Iron Honey Analysis Area is in a high risk hazard of intense uncontrolled wildfires." (bolding and underline added for emphasis)

This claim was lacking in the DEIS and perhaps understandably so considering it's recent publication date of February of 2001. However, this statement begs of further investigation since it is such a direct contradiction of numerous evaluations that the Iron Honey is at low to moderate risk for frequent stand replacement fires.

The initial presentation of the Iron Honey project proposed a new harvest strategy; the Pulse approach. This so-called Pulse technique was advocated as emulating stand-replacing fire in an area that historically cannot show a frequent episode of such fires. Nonetheless, the Iron Honey Pulse type disturbance was hailed as good because it was contended that implementing large canopy openings (clearcuts or shelter wood cuts of hundreds or thousands of acres) would allow the USFS to stay out of the affected area for quite some time before reentry. The fact that Iron Honey does not appear, by any reasonable assessment, to be a candidate for such heavy handed "fire" treatment is lost in the IPNF arguments in behalf of Alternative 8. The general concept of the Pulse treatment may warrant consideration if applied within a Resource Area that had a healthy watershed habitat but clearly, Iron Honey does not enjoy such a distinction.

In summary, regarding fire risk being a driving force behind the selection of Alternative 8, it is patently clear that the true goal of Alternative 8 is to accelerate the change of stand species distribution within the analysis area; period. The IPNF offers no credible evidence that the analysis area is facing an abnormal fire risk. Certainly, when extreme drought conditions are present, any and all forest stands are elevated to higher fire risk but that risk is not the norm for Iron Honey. The IPNF portrays the Iron Honey RA as being in an unnatural stage relative to stand species. This is curious since the present species mix of timber within the Iron Honey area does not strike me with surprise. The coveted Western White Pine, the USFS tells me, is a "*long-lived seral*" species. Eventually, after perhaps several hundred years, even this seemingly indestructible tree would have been succeeded, absent of a major disturbance, by the species that exist today; shade tolerant Western Hemlock, Grand Fir, etc.. This brings up another interesting point that is not mentioned by the IPNF. The Geological Assessment of Feb. 1998 says this of Western White Pine on page 29.

"Historically, mountain pine beetles played a major role in mature white pine forests of the Coeur d'Alene River Basin. Outbreaks were recorded in the early 1900's, killing as much as 50% of the mature white pine trees in a stand and spreading over tens of thousands of acres."

This discloses a fact that is not readily made known by the authors of the Iron Honey project and that is that Western White Pine is not a silver bullet. It has its own Achilles Heel, just like most of nature's living things.

However, the replacement process of these seral trees was drastically hastened due to the high-grade logging that took place during the early to mid 1900's. I fail to be surprised nor am I convinced there is anything abnormal about the present status of species in this area. The IPNF constantly harps on this contrived unnaturalness, apparently to justify its endeavors to rather quickly change the species back to a distribution more to it's liking. I would suggest that the evolution of changes in stand composition obviously takes a tremendous amount of time and should not be attempted within such a compressed time frame as advocated in their DEIS or FEIS.

This leads to my second area of criticism of this project.

Aquatics:

During the early 1990's, the IPNF came out with a number of Environmental Assessments (EA) proposing to "save the forest" by logging. In many of those documents, the IPNF disclosed substantial data that admitted that the streams and rivers within and near the subject analysis areas were in very damaged conditions. It was in these EA's that the public first learned of such problems as Peak water run off, of water release problems related to excessive canopy removal, of Rain-on-snow events, etc.

These very damaging reports, published by the IPNF, were the principal reason a number of those EA's were successfully appealed. However, since about the mid 1990's, the IPNF has abandoned almost all reference to such claims of large overstory or canopy removal exacerbating peak water yields. It appears there is a direct attempt to disavow such a link between clearcuts, or near clearcuts such as large shelterwood cuts that remove about 70 percent of the timber, and peak water yields.

Nonetheless, on page II-40 of the DEIS and on page II-10 of the FEIS, they explain that they eliminated further consideration of Alternative 4, Extensive Use of Only Prescribed Fire, because

"The large scale application of fire would likely result in a substantial increase in water yield and would consume commercially-valuable timber." (bolding added for emphasis)

Additionally, in the FEIS on page III-61 they weakly concede that canopy openings contribute to peak water yields by saying that the No-Action Alternative would produce

"a gradual reduction of water yields and an increase in sediment inputs (the later due to no stream crossing removals). The streamflow regime would continue to recover from past timber harvest as the watershed revegetated."

The FEIS clearly points out that Alternative 6, designed primarily for aquatic improvement, offers significantly superior improvement to the area stream and river habitat saying

"Alternative 6 would be the most beneficial for restoring natural watershed function and condition."

It is interesting to note however, in describing Alternative 6, the IPNF seems to be loath in even hinting that part of the peak flow problem is attributable to large canopy openings. They further seem to fix an inordinate amount of blame of the abnormally high peak flows to roads, inside ditches, road channel crossings, etc. Again, we are given assurance that

“removal of 85 percent of the road channel crossings within all the tributaries of the Upper Little North Fork will significantly reduce the length of the channel network and contributing area in these sub-watersheds. With this reduction in the contributing area, it also can be expected that peak flows will be reduced”
(FEIS, page III-69).

I am sure that these particular road related features of the existing environment in Iron Honey, or for that matter the entire Coeur d’Alene River Ranger District, are a major “contributor” to the peak flow issue. However, they are strangely silent on any contribution to peak flows caused by overstory removal.

Other than those infrequent acknowledgements, mentioned earlier, regarding the effects of water yields caused by excessive canopy removal, the IPNF is silent on this subject. We have been told during recent meetings with the IPNF staff that Kappesser’s work was not applicable, in part, because his work was not peer reviewed. It is interesting that those who criticize Kappesser’s findings offer absolutely not one utterance of recognized or counter peer reviewed science.

It seems that the IPNF has shifted nearly the entire blame of large depositions of sediment (large coble bedload) exclusively to encroaching roads and stream crossing failures. Again, there has not been any evidence or information submitted that quantifies where and how many of those stream crossings have been the source of this sediment. As stated before, it is strangely convenient for the IPNF to ignore the possibility of sediment delivery coming from any source other than road shoulders and stream crossings simply because, if that were true, they do not have to recognize the effects of peak runoff aggravated by large canopy openings.

If the majority of the deposition of sediment now found in the lower reaches of streams and river bottoms and flood plains is truly due nearly exclusively road related sources, then an inventory of failed crossings and road shoulders encroaching upon riparian areas would explain such a staggering volume of bedload. I seriously doubt that this is the case for the very simple reason that we would be witnessing an incredible number of stream crossing failures and road shoulder washouts. Although these types of failures are certainly of a major concern, I challenge the IPNF to substantiate such sources by providing a specific site-by-site inventory of such failures that would rationally explain just where the “contributors” of this huge amount of sediment are.

There are some documents that directly dispute, or seem to dispute, this apparent aversion by the IPNF of conceding what causes, or at least significantly contributes to, peak water yield.

The Geologic Assessment of the Coeur d'Alene River Basin report (Feb. 1998) says the following:

"There are two distinct conditions that are influencing the watershed, streams, and habitats, throughout the basin. Cumulative responses to powerful and frequent slope disturbances, including the massive turn-of-the-century fires (did not happen in Iron Honey) and later management responses, (logging; and did happen in Iron Honey) could easily have provided the triggers for the ensuing long-term and extensive channel failures – lack of dynamic equilibrium – we are seeing today."

Another statement that the above report makes (page 9) corroborates past hydrologist G. Kappesser's findings that stream channel armoring is capable of significantly contributing to sediment problems.

"With the exception of the Rathdrum Prairie, the Coeur d'Alene River Basin is unique in that its landscapes have the highest drainage dissection in north Idaho. The stream channels in the basin store more unconsolidated, alluvial soil and rock material in the stream bottoms and along the toe-slopes than most other areas in the Idaho panhandle. These materials are very susceptible to movement."

Finally, the IPNF makes a statement admitting that tree canopy removal increases peak flows. Here is what they said in the DEIS on page III-61 – 62.

"The hydrologic regime in Iron Creek (also Hudlow, Honey, Sob, Solitaire and Upper Little North Fork) and its tributaries has been significantly altered as a result of timber harvest and road building, in four respects. First, it can be inferred from peak flow increases that periods of spring peak flow are longer in duration (Troendle and King, 1983). The timing of runoff from increased water yields is dependent upon air and snowpack temperature and exposure to solar radiation, which are controlled by elevation, aspect, slope, and shading from topography and/or vegetation.

Second, data from the Idaho Panhandle National Forest and several studies (Kappesser, 1991; Christner and Harr, 1992; Harr, 1981) suggest that rain-on-snow generated peak flows increase in magnitude significantly as a result of tree canopy removal.

Third, ----- Increases in stream power results in increased probability to create and transport sediment. Data indicates that annual runoff and rain-on-snow generated peak flow risk has been greatly increased over natural levels (Appendix D, Tables D-1 and D-2)"

Nearly all of this language has been removed and replaced by a much milder explanation in the FEIS. In Appendix D, pages 11 and 12, there is a very brief discussion of the effects of timber harvest on the increases in total runoff.

This is significant because if Mr. Kappesser's contention(s) is correct, the IPNF cannot cure the sediment bedload problem simply by removing stream crossings while ignoring the size of canopy openings.

As stated before, Mr. Kappesser advises that watersheds are at risk of excessive water yields when the Equivalent Clearcut Areas (ECA) reaches 20 percent or more. In fact, this gentleman further advises that caution should be exercised if the ECA starts to exceed 10 percent.

When one reviews the Appendix D in the FEIS, every creek summarized, with the notable exception of two creeks, indicates they are “*Non-Functioning*” or “*Functioning at Risk*” and further that these damaged creeks have ECA’s ranging from 10 % to 19%. Furthermore, the overwhelming number of acres within these sub-watersheds lies within the Rain-on-Snow zone.

The only two creeks that are in “*Properly Functioning Condition*” are Tom Lavin Creek, which has a low ECA of 9% and Lewelling Creek, which has an ECA of only 5%.

There is another interesting omission by the IPNF in regards to the issue of water runoff. Way back in the List of References section of both the DEIS and the FEIS, they cite a report by J. A. Jones and G. E. Grant entitled “Peak flow responses to clear-cutting and roads in small and large basins, western Cascades, Oregon”. However, the IPNF never quotes any material from this report. Reading this report divulges some very interesting findings by these true research scientists. They studied 34 years of weather data in a series of harvest areas ranging from 60 to over 600 km². Their report explains the following: “*The objective of this study is to quantify long-term changes in storm hydrograph behavior associated with clear-cutting and road construction....*”

They report;

“Collectively, the statistical analysis reported here strongly suggests that there has been a large increase in peak discharges attributable to forest harvest in both small and large basins in the western Cascades.”

This report goes on to explain why their research is superior to other similar studies and offers much more detail than reported in this paper.

It obviously should be noted that some of the results of their work in the Cascades of Oregon might not be exactly duplicated or applicable in the Iron Honey RA due to different geology, weather, etc. However, I am confident that most of their findings have strong correlations to our Panhandle National Forest. Certainly, the Jones and Grant research is far more thorough and revealing than anything conducted by any IPNF staff. To discount the implications of the Jones and Grant research would be the worst kind of dereliction.

This brings up my last concern regarding how the IPNF has presented the Iron Honey project.

Intensive Forest Management:

I have stated my concern before about the inappropriateness of applying the so-called Pulse management technique within a watershed that is struggling to recover from very similar past intensive management. Idealistically, the pulse approach to the management of public timber lands sounds plausible when applied in a watershed that has been relatively unharmed. However, to ignore the cumulative effects of past land management activities is wrong. In attempting to sell the public on the apparently nice feature that the pulse approach provides, and that is once the pulse project is complete, there would not be another entry into that Resource Area for quite some time (decades).

This is not the case when trying to implement this pulse technique on the existing badly damaged Iron Honey area.

When one summarizes the traditional measurements that indicate the present status of the Iron Honey area, they portray a watershed that is definitely in trouble. The Iron Honey area, which is 21,600 acres in size, is reported in the FEIS to have undergone the following:

“More intensive management began in the late 1950’s with the use of clearcutting harvests fragmenting the landscape into smaller patch sizes. Salvage of the remaining white pine often took place between harvest units.”

Most, or all, of this was done since 1950 as the IPNF records are so poor that they do not have an inventory of how much timber was removed during the 1930’s and 1940’s. Suffice it to say that a significant amount of the available land suitable for growing timber has been cut at least once in the last half of the 20th century and, in some cases, some areas have been harvested more than once.

Some where between 25 and 35 percent of the Resource Area has been logged well within one rotation period. This figure is difficult to determine because of the ambiguity of the reported harvest acres within the Iron Honey RA. In the FEIS, on page III-2, the IPNF states

“There were approximately 3,750 acres of clearcuts, 2,736 acres of overstory removal and liberation harvests, 1,400 acres of commercial thinning, 1,221 acres of salvage logging, and 1066 acres of selective harvest within the analysis area.”

However, these same types of harvests are again reported in the FEIS on page III-89, but the figures differ by some degree.

“There have been approximately 3,900 acres of clearcut harvests, (+ 4%) 1,350 acres of stands that have had seed tree and shelterwood harvest, (wasn’t even mentioned on page III-2) 3,200 acres of overstory removal and liberation harvest, (+ 17%) 1,750 of commercial thinning, (+ 25%) 1,850 acres of salvage logging, (+ 52%) and 1,200 acres of selective harvest within the analysis area.” (+ 13%)

There is nothing offered within the FEIS to explain these discrepancies. In any event, a considerable amount of the Iron Honey overstory has been removed over the last 50 to 100 years.

Add to this extreme harvesting regime the fact that this same area has a road density of 8.6 miles of road per square mile and one can only now begin to appreciate the severity of this intensive management style.

However, when you review the preferred Alternative 8 that is proposed for the Iron Honey RA, it becomes evident that this pulse approach is more than intense. Nearly all of the proposed 1,900 shelterwood acres occurs only on about half of the resource area; so the concentration is extreme.

In other words, the planned 27 MMBF will be spread over only about 10,000 acres or about 50% of the 19,900 acre RA. It so happens that the proposed cut units occur in some of the most seriously damaged watersheds within the Iron Honey area.

The majority of the harvested acres are to take place in the Iron Creek area whose stream reaches are listed as "Non-Functioning" in the FEIS in Appendix D, page D-3. Additionally, this same area has an extremely high road density of 12.4 miles of road in each square mile. Finally, this same area has an Equivalent Clearcut Area (ECA) of 17 percent.

The other drainage that is scheduled for shelterwood cuts is Solitaire Creek, which is not in much better condition than Iron Creek. This creek has a road density of 9.9 miles of roads per square mile and an ECA of 19 percent.

The IPNF would have us believe that applying the better part of a 27 million board foot harvest off of 1,900 acres spread across approximately a mere 10,000 acres (about half of the Iron Honey RA) will produce virtually no cumulative effects. Even the most naive should be suspicious of this claim.

When all of the hype is set aside, what the IPNF is advocating, as stated before, is to implement the overwhelming amount of harvest (1,900 acres) in the Iron Creek and Solitaire Creek drainages; the two creek systems that are in worst condition than any of the other creeks or sub-watersheds within the Iron Honey RA. I fail to see how the IPNF can expect the public to accept that this is forest management being applied with a key goal of allowing a badly damaged stream system to heal. It is painfully obvious that the primary goal proposed here is to accelerate the reintroduction of high value tree species back into the IPNF. The public has constantly been told, "Trust us" by the IPNF. I truly believe the public wants to do just that; trust the USFS to manage those public lands on a credibly stained yield program and not constantly resort to chicanery in order to redirect their primary emphasis on getting the cut out. It is unfortunate that the very valuable white pine fell victim to blister rust and pine beetle and hence was salvaged to the degree that it was. However, that is history and cannot be compensated for quickly. To attempt to do so, as is proposed in the pulse approach, is to do so at the unwarranted expense of other beneficial uses of the resource area.

John E. Bentley
Post Falls, Idaho
Dec. 26, 2001

RECEIVED

DEC 27 2001

COYA RIVER R.D.

2015 E. 36th
Spokane, WA 99203
Dec. 24, 2001

Dear Joseph,

#13

FEIS-50

I have gone fishing on the North Fork of the Coeur d'Alene River, gone mushrooming, and my grandfather tried mining there. I do not want 20% of the canopy removed on any sale, Iron Honey or otherwise. That is enough to scare any taxpayer who wants to see our National Forests healthy for centuries.

Also, as a Spokane resident, I object to the increased danger of flooding, bringing metals into the Rathdrum/Spokane aquifer.

Please stop this sale. Too many trees, at too high a cost to the future. Take the Iron Honey sale off the block!

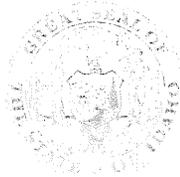
Sincerely,

Carl Ellis

509-533-0587

DON PISCHNER
DISTRICT 4-B
KOOTENAI, SHOSHONE
& BENEWAH COUNTIES

HOME ADDRESS
P.O. BOX 7
LEWIS & CLARK, IDAHO 83816
(208) 667-5770



Rec'd
12-27-01

FEIS-51
COMMITTEES
APPROPRIATIONS
TRANSPORTATION & DEFENSE

House of Representatives
State of Idaho

#14

December 23, 2001

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

Dear Ranger Stringer:

I am in support of the IRON HONEY Ecosystem Management Plan, preferred alternative #8.

After witnessing your power point presentations, reading much of your material, and joining on a field tour, I decided to test my understanding of your proposed basin restoration plan. Hence, I am including my writing expressing my support of Iron Honey and why. It is from a layman's point of view and hopefully makes some sense.

In addition, you will find a copy of a resolution approved by members of the Western Legislative Task Force. This group is made up of two-to-three legislators from each of seven western states.

As I told you, my grandparents lived along the Iron Creek rail spur near Chilco pre-1900. If they were here today they could tell stories of interest. Let's wish for our grandchildren a few decades from now to tell their own stories—about "return of the giants." Iron Honey may afford that sooner, than never.

Sincerely,

A handwritten signature in cursive script that reads "Don Pischner".

Don Pischner

IRON HONEY
an Ecosystem Management Plan
for United States Forest Service Lands
in north Idaho's Panhandle National Forest

Let's support "active forest management" by advocating for the IRON HONEY Ecosystem Management Plan.

There is no question that forest management on United States Forest Service lands has been passive over the past few years. Policy decisions have moved from local to a more top-down-approach. Forest rangers as we knew them, have been displaced by a variety of biologists and administrators skilled in public relations. A maze of overlapping laws and regulations has led to "gridlock" of forest management decisions. Often matters lead to litigation. Hence the judicial, rather than professional foresters, decide what happens to national forest lands.

Over the past decade a new approach to forest care and management has resulted from a region-wide environmental evaluation based on science findings. In 1996, a multi-million dollar study of Pacific Northwest Inland Forests conditions was published. Known as the *Interior Columbia Basin Ecosystem Management Project*, it rates forest health from a wide-ranging view. The local national forests of the Idaho Panhandle received further scientific scrutiny upon completion of the 1998 *Coeur d'Alene River Basin Geographic Assessment*.

So today a relatively small national forest area in north Idaho between Montana and Washington (northeast of Hayden Lake and south of Lake Pend O'Reille) has been identified in need of mending. Specifically, the Iron Creek basin drainage and the Honey Creek basin drainage, have received restoration recommendations by forestry officials. Their plan currently is in the EIS stage (Environmental Impact Statement).

Identified as the *Iron Honey Ecosystem Management plan*, it is comprehensive and includes the following stated goals:

- * *Restoring early seral (mature ecological stage) vegetative component--western white pine--through regeneration harvests*
- * *Focusing on aquatic restoration through a number of priority watersheds as identified in the integrated strategy.*
- * *Creating and managing security...to foster population increase of mature/old forest related species.*

The preferred EIS Alternative (#8) comprises 21,600 acres of land of which less than 10% (1900 acres) will be harvested. Sale of 27 million board feet of wood promises \$6 million in receipts with \$2 million of that for rehabilitation goals in the form of stewardship funding.

To gain a geographic perspective, one might imagine the size of Iron Honey by imagining this page (8 ½ x 11) as relative to the Idaho Panhandle. Folding in the middle, the half pages represent the split between private/state ownership and the federal Panhandle National Forests--2.5 million acres. Repeated folding would not be possible down to the relative small size needed to represent the basin plan. The Iron Honey proposal addresses a mere 1/10th of 1% of the Panhandle National Forest Lands. The planned timber treatment area in this scale exercise corresponds to the size of a pinhead. By no means does this example lessen the landscapes importance; rather it portrays Iron Honey as one small positive step toward Best-Management-Practices.

Trees will be thinned and pruned. Yes, trees will even be cut and sold, thus providing funding for this proposed basin wide program. Most trees are fir species, now mature and useful, yielding "wood" for utilization and enhancement of our quality of life.

The past century witnessed a 90% reduction in the western white pine species. By the 1960's the giant western white pine were nearly gone, decimated by a combination of white pine blister rust disease, high-grading, over-cutting, mountain pine beetle attack, and exclusion of stand-replacing fires. Douglas fir and grand fir, each susceptible to a much greater variety of insect and disease problems, now stand in place of the white pine giants. This shift to an invasive species has resulted in less productivity and increased problems.

Even so, one preservationist threatens legal appeal of this Coeur d'Alene basin restoration plan developed by forestry technicians and scientists. Gaining media attention, he chose to degrade Iron Honey as "just another logging job," preferring instead passive forest management.

Natural regeneration has not worked. An aggressive planting program, using genetically improved, blister rust-resistant stock and appropriate silvicultural techniques holds promise for a return of the white pine. As a bonus the Iron Honey plan promotes improved aquatic connections by correcting inferior roads, culverts, and stream banks thereby reducing sedimentation. Better wildlife habitats are high on the priority planning list.

It's time to support active forest management based on the best available science. In this way, man will assist in the return of the white pine giants, improve the fish and wildlife habitats, while reducing risks to forests from insects, disease and fire. Support Iron Honey.

Don Pischner
Coeur d'Alene, Idaho

dp

WESTERN LEGISLATIVE FORESTRY TASK FORCE
RESOLUTION 01-1

The Iron Honey Ecosystem Restoration Project

A resolution to the Chief of the United States forest Service, Dale Bosworth, the Office of the Regional Forester for Region One of the United States Forest Service, and to the Idaho Congressional Delegation, and to include other interested parties.

WHEREAS, the resources most at risk in the Coeur d'Alene River Basin are the water, old forests, and those stands of trees that are most at risk to insects, disease, and fire; and

WHEREAS, the Upper Little North Fork of the Coeur d'Alene River has been identified as a high priority for restoration; and

WHEREAS, the Coeur d'Alene River Ranger District of the Idaho Panhandle National Forest has conducted an extensive study and evaluation of the Iron Creek and Honey Creek drainage of the Coeur d'Alene River Basin; and

WHEREAS, the western white pine forests in the basin have been compromised due to harvesting and infestation of forests by blister rust; and

WHEREAS, the watershed was found to have suffered damage when forest health was impaired, too many roads and stream crossings were developed, and there was a resulting loss of diversity and numbers of animals including aquatic species; and

WHEREAS, after thorough study, a recommendation identified as the Iron Honey Ecosystem Restoration Project was developed and is now subject to public comment; and

WHEREAS, the recommendations call for active forest management programs including harvest of 27 million board feet of existing mature Douglas fir and Grand fir with proceeds to be applied to other portions of the project including judicious reduction of roads, consolidation of forest blocks, restoration of blister rust resistant white pine species, improved stream channel stability and greater security for diverse animal and aquatic species.

NOW, THEREFORE, BE IT RESOLVED by the members of the Western Legislative Forestry Task Force, that we endorse the concepts incorporated in the Iron Honey Ecosystem Restoration Project and urge its implementation under alternative 8. We advocate that the project should be evaluated as a total, balanced design, which requires complete implementation to achieve the integrated impacts and comprehensive goals.

COEUR D'ALENE

AREA CHAMBER OF COMMERCE

#15

12/27/01

Mr. Joe Stringer
District Ranger
Coeur d'Alene River Ranger District
2502 East Sherman Ave.
Coeur d'Alene, ID 83814

Dear Sir,

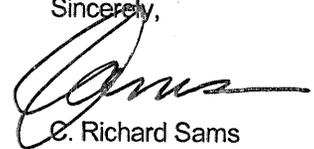
The Coeur d'Alene Area Chamber of Commerce would like to take this opportunity to comment on the USDA Forest Service's proposed Alternative 8 Iron Honey restoration plan.

It is the Chamber's position that the plan should be implemented. The Chamber takes this stance for the following reasons:

1. This alternative has a minimal impact in terms of logging when considered against the scale of the entire Idaho Panhandle National Forest (IPNF). The Iron Honey project encompasses 22,000 acres of the 2.9 million acres in the IPNF. Less than 10 percent of the Iron Honey landmass will be logged, according to USDA Forest Service personnel. Moreover, the forest within Iron Honey was dramatically altered due to abandoned logging practices that left the forest out of balance. The plan will attempt to correct this situation using the best science and management practices currently available.
2. This alternative incorporates logging as a tool to help regenerate the indigenous tree species of the proposed project area.
3. This alternative provides for the harvest of 27 million board feet of timber, according to the USDA Forest Service. The agency's forest management plan for IPNF currently allows an annual harvest of 240 million board feet. The Iron Honey plan will help boost North Idaho's timber industry and overall economy.
4. This alternative funds a multimillion-dollar watershed restoration plan that will, in addition to reducing sedimentation by 30-53 percent, likely increase the indigenous fish population by 50 percent within 5-7 years of project completion.
5. This alternative will reduce the probability of a stand-replacing fire that would, among other things, significantly increase the current elevated sedimentation level and further degrade fish habitat.

In conclusion, it is the Chamber's belief that the plan combines good science with practical thinking to achieve the best results for the Iron Honey watershed within the framework of the multiple-use policy under which the Forest Service is obligated to act.

Sincerely,



C. Richard Sams
Coeur d'Alene Area Chamber of Commerce Chairman

Rec'd
17-28-01

#16

426 W. 22nd
Spokane WA 99203
12/27/01

Joseph Sturzer
District Ranger
Coeur d'Alene River Ranger District
2505 East Sherman Avenue
Coeur d'Alene ID 83814

Dear Mr. Sturzer:

Thank you for the opportunity to comment on the Iron Honey Timber Sale. It is not a good idea - not at all! The Forest Service is proposing to remove way too much of the forest canopy on 1,919 acres.

This will increase the chance of flooding; it will worsen the inevitable flooding conditions, and cause heavy metals to enter my drinking water of the Rathdrum Prairie aquifer.

Proposing this timber Sale is an unconscionable abuse of Forest Service powers.

Sincerely,
Laura Laufer
LAURA LAUFER

RECEIVED

#17

DEC 31 2001

COEUR RIVER R.D.

12/27/01

Joseph Stringer
District Ranger
Coeur d'Alene River Ranger District
2505 East Sherman Avenue
Coeur d'Alene, ID 83814

Dear Mr. Stringer,

Thank you, for the opportunity for to comment on the Iron Honey Timber Sale. I hope you enjoyed your Holiday Season, and hope you had an opportunity to play in the North Idaho Snow.

It is nice to know that the Forest Service is finally talking about restoring this watershed. The Iron Honey area is already heavily roaded and heavily logged, for example, 69% of the forests in the area are less than 100 years old and there are 9 miles of road per square mile in the project area. Winter rain-on-snow floods are aggressively erosive, with higher flow velocities over shorter time intervals.

During winter floods the tailings-bearing sediments are scoured from the channel, eroded from the banks, deposited on the floodplain and carried into and across CDA Lake and on to the beaches of the Spokane River as far down as Lake Roosevelt (as observed during the winter flood of 1996). Multiple-storm winter floods include those of 1917, 1933, 1961, and 1982. Single-storm winter floods include those of 1946, 1951, 1964, 1974, 1980, 1990, 1995, 1996, and 1997. Lake CDA and the Spokane River feed one-third Spokane Valley/ Rathdrum Prairie aquifer (the sole source drink water for nearly half million residents of the Spokane area).

With the Coeur d'Alene Basin Cleanup in the near future, how can Forest Service insure that this project will not help destroy 359 million dollars worth of cleanup work?

I can only support Alternative #6 and even that alternative needs modification so that it doesn't damage soils from heavy equipment. I would like the Forest Service to know they cannot heavily log 1,919 acres to fix this watershed. This logging will only cause more problems, not fix the watershed.

Happy New Year,

Laura Fulliger

Laura Fulliger

2420 P Chris Lane

Medical Lake WA 99022

509-244-4191



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

RECEIVED

DEC 31 2001

COEUR D'ALENE RIVER R.D

#18

2110 Ironwood Parkway • Coeur d'Alene, Idaho 83814-2648 • (208) 769-1422

December 28, 2001 Dirk Kempthorne, Governor
C. Stephen Allred, Director

Joe Stringer
District Ranger
Coeur d'Alene River Ranger District
Idaho Panhandle National Forests
2302 E. Sherman Ave
Coeur d'Alene, ID 83814

Dear Mr. Stringer,

Thank you for the opportunity to comment on the new alternatives described in the Iron Honey Final EIS. Since our June 7, 2000 comment letter on the draft EIS, we have developed the *North Fork Coeur d'Alene Sub-basin Assessment and TMDLs* and have submitted this package to the Environmental Protection Agency for approval. This package includes a sediment TMDL for the entire North Fork Coeur d'Alene River watershed. Briefly, conclusions of the *Assessment* are that forest roads are the primary source of excess sedimentation; that most sediment comes from roads which are encroaching on stream channels and at stream crossings; and that sediment affects fish density in most of the North Fork sub-basin. Habitat issues also affect fish populations however, they are beyond the scope of the TMDL process at this time.

After reviewing the new alternatives 8 and 8+, we conclude that if all mitigation is completed in a timely manner, there will be a net reduction of sediment, consistent with IDAPA 58.01.02.054. which requires no increase or a net decrease of the pollutant of concern. Attached is a worksheet explaining these rules more fully. Our remaining concerns with alternatives 8 and 8+ are the potential for stream sedimentation from the reconstruction of 30 miles of unused roads, the harvesting of trees within Riparian Habitat Conservation Areas and the potential for livestock grazing in restored riparian areas. We offer the following comments on each of these topics:

Roads

Approximately 12% of the existing roads in the project area are on sensitive landtypes that are prone to high landslide potential, surface erosion and/or sediment delivery. Numerous past road failures in these areas point out their incompatibility with this landtype. Roads in these sensitive areas should be obliterated without attempting reconstruction unless they are a necessary part of the permanent road network.

A high percentage of crossings in each sub-watershed (21-57%) have failed or are in the process of failing (FEIS section 3.2.3.F). The majority of these crossings are on unused roads. Alternative 8 requires the reconstruction of 30 miles of road, the reconditioning of 56 miles of road, the replacement of 21 culverts, and brushing, blading and shaping sufficient to accommodate modern logging equipment. It follows that this road work would further tax existing drainage systems and involve considerable disturbance of soils in efforts to achieve needed width, grade and surface requirements. The EIS notes that even recent timber harvests and associated roads have contributed to cumulative effects that are affecting recovery of fish habitat in these streams (page III-15). We suggest further minimizing the amount of road work necessary for timber harvest. The question which needs to be clearly answered in the ROD is, "Is the value obtained by timber harvest worth the risk of re-opening 86 miles of road which is

generally poorly located and capable of generating huge sediment loads to the river even in a brushed-over unused condition (FEIS section 3.2.3.C)?"

Riparian Zone Harvest

Removal of riparian canopy cover is a major factor in increasing stream temperature which stresses aquatic macroinvertebrates and fish populations. Many years of growth are required for trees to become sufficient in size to provide effective stream shading. Alternative 8 provides for 185 feet of riparian zone harvesting to occur. Although not currently listed as impaired due to temperature, data indicates that the Little North Fork does not meet State temperature criteria. Additional riparian harvesting should be minimized to reduce further contribution to this impairment.

Livestock Grazing

Appendix A discusses that there are currently 45 cow/calf pairs in the project area from June 1 to September 30. It also states that most of their use follows the riparian areas. Newly restored riparian areas are particularly vulnerable to damage from grazing cattle which tend to congregate for long periods of time in areas of good forage combined with water. A considerable amount of damage can be done by even a few cattle to a newly replanted site in a short period of time. During the re-growth phase of restoration projects, cattle should be excluded from these areas.

While Alternative 6, when contrasted to Alternative 8, offers a more desirable restoration package (the restoration of 1.7 miles more riparian habitat, the removal of 47% more culvert crossings, no additional road construction/reconstruction and the reduction of an additional 256 tons/year of sediment in the North Fork), we believe both Alternatives 6 and 8 are consistent with the TMDL. Even with these restoration efforts, further sediment reduction in this watershed may be necessary until beneficial uses are fully supported.

Thank you for the opportunity to comment on this proposed action. If you have any questions please contact June Bergquist of my staff at (208) 769-1422.

Sincerely,



Gwen P. Fransen
Regional Administrator

enclosure

cc: DEQ-Dave Mabe, Steve Allred
IFG-Ray Henneky
IDL-Jim Colla

Waters of the State - Their Support Status and Related Rules

The term "support status" describes what beneficial uses are or are not supported by that waterbody. Waters of the State can be grouped into four categories when describing their support status:

1. Full Support Waters:

Meet Idaho Forest Practice Rules

2. Waters on the 303(d) List Prior To TMDL Approval by EPA:

Follow IDAPA 58.01.02.054.04 and 054.05. Which are as follows:

04. High Priority Provisions. Until a TMDL or equivalent process is completed for a high priority water quality limited water body, new or increased discharge of pollutants which have caused the water quality limited listing may be allowed if interim changes, such as pollutant trading; or some other approach for the pollutant(s) of concern are implemented and the total load remains constant or decreases within the watershed. Interim changes shall maximize the use of cost effective measures to cap or decrease controllable human-caused discharges from point and nonpoint sources. Once the TMDL or equivalent process is completed, any new or increased discharge of causative pollutants will be allowed only if consistent with the approved TMDL. Nothing in this section shall be interpreted as requiring best management practices for agricultural operations which are not adopted on a voluntary basis.

05. Medium And Low Priority Provisions. Until TMDLs or equivalent processes are developed for water quality limited water bodies identified as medium or low priority, the Department shall require interim changes in permitted discharges from point sources and best management practices for non point sources deemed necessary to prohibit further impairment of the designated or existing beneficial uses. Nothing in this section shall be interpreted as requiring best management practices for agricultural operations which are not adopted on a voluntary basis.

a. In determining the necessity for interim changes to existing activities and limitations upon proposed activities, the Department, in consultation with basin and watershed advisory groups, shall evaluate the water quality impacts caused by past regulated and unregulated activities in the affected watershed.

b. Consideration of interim changes shall maximize the use of cost-effective and timely measures to ensure no further impairment of designated or existing uses.

3. Waters with Approved TMDLs Prior to Development of an Implementation Plan:

IDAPA 58.01.02.054.04 applies to all waters in this status.

4. Waters with Approved TMDLs and Implementation Plans: (none as yet in CdA Region as of 1/08/01)

Follow implementation plan.

RECEIVED

DEC 31 2001

COEUR RIVER R.D.



#19

December 19, 2001

Mr. Joe Stringer, District Ranger
 Coeur d'Alene River Ranger District
 2502 E. Sherman Ave.
 Coeur d'Alene, ID 83814

Dear Mr. Stringer,

On behalf of the members of Shoshone Natural Resources Coalition, I wish to make known that SNRC supports the decisions the Forest Service is making in regards to managing the Iron Honey Resource Area.

The needs of the area have been thoroughly studied. The objectives are sound and appear achievable. The Project Team's combined career experience of almost 350 years, brings the integrity of the scientific judgements to an extremely high level. The financial aspect of the project looks well thought out. Under Alternative 8, which would be the preferred Alternative, there is some "built-in" funding. This is responsible behavior. Money never is abundant, especially in these times. A sensitivity to those who do not wish to see timber harvested has been articulated and taken into account.

It is our belief that Alternative 1, the No-Action alternative, is not acceptable. Our forests need management, just ask the people of Los Alamos, New Mexico and Hamilton, Montana. The Forest Service has learned much over the years. Scientific understanding has increased. Technology has shed a brighter light on the needs of a forest. The techniques of the past have been replaced by better methods gleaned from new knowledge.

Our group is made up of people who live, work and recreate in the woods. We choose to live in the Silver Valley of North Idaho because we love being amongst the trees, the clean air, the hills and the animals. Most of us would not trade it for another place on earth. It is very important to us and to the future generations we represent, that these forests are healthy and strong. Too often, people wishing to lock human beings out of the forests, forget that man has been here a long time. It is our obligation to take care of the forests. We are not moving away.

Past practices, in the eyes of 21st Century vision, are seen as mistakes. This is how we learn. The plan for the Iron Honey Project takes those mistakes into account. Most of the objectives address how to fix the results of those practices and put this particular area back on the road to a healthy future.

Thank you for the opportunity to comment on this FEIS.

Sincerely,

Kathy Zanetti, Facilitator

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DEC 31 2001
CD'A RIVER R.D.



Shoshone
Natural
Resources
Coalition
*A Voice for
Responsible
Resource
Management*

#19

December 19, 2001

Mr. Steve Bateman, Ecosystems Staff Officer
Coeur d'Alene River Ranger District
2502 E. Sherman Ave.
Coeur d'Alene, ID 83814

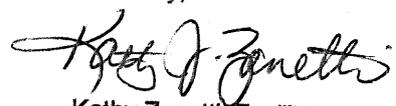
Dear Steve,

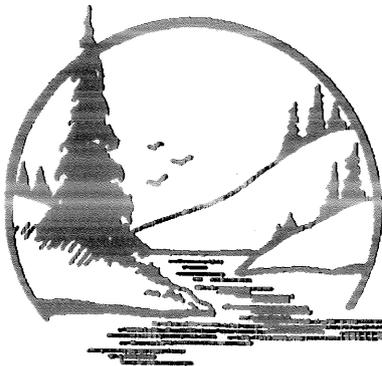
On behalf of the members of Shoshone Natural Resources Coalition, I want to thank you and your colleagues for attending our meeting on December 11th. This is a busy time of year and we are appreciative of your making the trek across the Pass to get here.

Your presentation on the Iron Honey Resource Area was enlightening and excellent. It seems to be a well thought-out project. We are sending a letter to Mr. Stringer in support of your Preferred Alternative 8. We will also send this to the newspapers as a letter to the Editor.

Thank you again and have a wonderful holiday. Best wishes in the coming New Year.

Sincerely,


Kathy Zanetti, Facilitator



FEIS-58
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DEC 31 2001

CD'A RIVER R.D.

Kootenai Environmental Alliance #20

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

December 28, 2001

Dear Mr. Stringer:

The following comments are submitted in response to the Iron Honey Resource Area FEIS. The comments are also being submitted on behalf of The Lands Council, Spokane, WA.

Stewardship Contract:

The Iron Honey FEIS does not mention or discuss the issue of Stewardship Contracts that are planned as part of the proposed logging. This is in spite of information that was released by the Forest Service to members of Kootenai Environmental Alliance (KEA) and The Lands Council (TLC) on November 8, 2001 during the Iron Honey field trip.

The complete lack of any information, analysis, and data regarding Stewardship Contracts and the Iron Honey FEIS is a significant NEPA issue. NEPA requires that information must be made available to the public before decisions are made and before action are taken, 40 CFR 1500.1(b). There was also no mention of or discussion in the Iron Honey DEIS concerning the issue of Stewardship Contracts.

The public cannot comment on issues that are not mentioned or described in either the DEIS or FEIS.

The lack of Stewardship Contract information in the FEIS requires that a Supplemental FEIS be written. The Supplemental FEIS should fully describes the financial impacts, and impacts to the watershed and fisheries from one or more Stewardship Contracts that are planned to be awarded as part of the Iron Honey project.

Old Growth/old trees:

KEA first raised the issue of logging of trees with a dbh > 20" in the Iron Honey area as part of a November 22, 1997 letter to District Ranger Matthews.

The Iron Honey DEIS on page A-8, response #16, indicated trees would logged that had a dbh > 20" with each Alternative.

KEA submitted written comments on June 2, 2000 in response to the Iron Honey DEIS. Old growth/old tree comments and concerns were described on page 6 of the June 2 letter.

The Iron Honey FEIS on page A-13 of Appendix A includes response 2(j). In the response the Forest Service indicated that Mr. Mihelich did not define what he considers an “old tree”.

It is important to point out that in the Iron Honey DEIS on page 27, in the second paragraph the Forest Service specifically used the words “old trees”. The following sentence is taken from the paragraph cited. “Under some alternatives, harvest is proposed in stands that contain old trees but which do not demonstrate other old-growth characteristics.”

It is also important to point out that on page 131 of Chapter III of the DEIS the term old trees is again used by the Forest Service. “Although these stands may contain large old trees and provide some old growth characteristics, opening caused by root disease may be common, and a key component of remnant white pine are larch will be missing.”

The Forest Service’s response in the FEIS at 2(j) did not indicate the Forest Service first used the term “old tree” in the Iron Honey DEIS.

The Forest Service’s response at 2(j) also did not address KEA’s request regarding the number of acres of trees with a dbh > 20” that would be logged with each action Alternative. This is a significant old growth issue, particular in light of the degraded old growth condition within and adjacent to the analysis area, and the volumes per acre that would be logged in the logging units selected with preferred Alternative 8.

Table E-5 on page E-4 of the FEIS lists the size of each of the 14 logging unit and the volume that would be logged from each unit. Unit #13 is 77 acres in size. 3,157 Mbf would be removed from this unit, which translates into 41,000 bd ft per acre. It is likely there are a significant number of trees in this unit with a dbh > 20”.

In Unit #9, 22,500 bd ft per acre would be logged.

In Unit #5 over 18,000 bd ft per acre would be logged.

In Unit #8, 16,000 bd ft per acre would be logged in the 266-acre unit.

In Unit #1 nearly 18,000 bd ft per acre would be removed.

In Unit #10, 327 acres in size, 14,000 bd ft per acre would be removed for a total of 4,593 Mbf in this Unit.

It is likely every unit cited have trees with a dbh > 20”.

The Supplemental FEIS should include stand data from the District’s Stand History Master List—Form 23, for each stand in the 14 Units proposed for logging with Alternative 8. This data would indicate the average dbh, average height, trees per acre, basal area per acre, and compartment year origin for the stand component in the 14+ category on Form 23.

The Supplemental FEIS should also include stand data from Form 23 for the old growth stands that are adjacent to the logging units selected with Alternative 8.

It is also important to point out the significant changes between the DEIS and FEIS regarding the issue of logging trees that have old growth characteristics. The DEIS on page 34 at the bottom of the page describes the changes to old growth management indicator species pine marten and pileated woodpecker. These changes are shown in table II-9 at the top of page 35. Alternatives 2, 5, and 7 would result in the logging of 286 acres of trees that are in stands that are 150 years or older.

In contrast, the old growth discussion in the FEIS, Chapter II, pages II-36 through II-38 completely omitted any mention of logging in stands that are 150 years or older. There is also no table on pages II-36, II-37, or II-38 that indicates the number of acres that would be logged in stands 150 years or older with any of the action Alternatives. It is highly likely that Alternative 8 would result in the logging of 286 acres of trees that are in stands 150 years or older. The FEIS should have supplied the same data that was found in table II-9 of the DEIS.

It is also clear the old growth discussions in Chapter III of the DEIS has been significantly changed when reviewing the old growth discussions in Chapter III of the FEIS. On page 131 of the DEIS it was indicated there are 686 acres of verified or recruitment old growth in Old Growth Unit 20. On page 90 of Chapter III of the FEIS it is indicated there are 686 acres of allocated old growth in Old Growth Management Unit 20. The FEIS implies that allocated old growth and recruitment old growth are identical when this is not the case. Recruitment old growth does not have the characteristics of old growth and therefore cannot be classified as allocated old growth, as described in the FEIS glossary, page AG-11.

Additionally, the DEIS on page 131 included the following sentences. "Currently 5% of the Iron Honey analysis area currently meets old growth criteria or will meet the criteria in 50 years or less. To encourage good distribution of old growth the Iron Honey Analysis area would benefit from allowing **mature stands** to trend towards old age." (Emphasis added).

These two sentences have been dropped from the old growth discussions on pages 88 through 91 of Chapter III of the FEIS. The FEIS should have included both of the sentences unless current data and analysis indicates both sentences are inaccurate.

Units 6, 8, 12, 13, and 16 are adjacent to stands of trees that are either verified old growth, existing old growth recruitment, or proposed old growth recruitment. The old growth analysis in the FEIS, pages II-36 through II-38 does not contain expert agency comments that explain why there would not be an increases in fragmentation of old growth stands due to the proposed logging in units 6, 8, 12, 13, and 16.

Cumulative Watershed Effects (CWEs):

On pages II-8 and II-9 of the Iron Honey FEIS there is a discussion of a number of issues that were raised relating to the Project. The following sentence is taken from page II-9. "In addition, the Ecology Center and Kootenai Environmental Alliance emphasized the importance of the cumulative effects analysis, which is addressed through the documentation in Chapter III, rather than as a separate issue."

The cumulative effects analysis in Chapter III concerning Aquatics does not include a discussion of, or specific scientific analysis of CWEs relating to the planned logging in the analysis area.

There are a number of significant issues relating to CWEs and the proposed logging due to highly degraded condition of the watershed as described on page III-7 of the FEIS. "The Geographic Assessment lists all the tributaries within the analysis area as functioning- at- risk or properly functioning except Iron Creek, which is listed as non-functioning."

The dismal fisheries conditions in the watershed, particularly concerning bull trout and westslope cutthroat trout indicate there have been and continue to be significant CWEs in the analysis area. There are only two watersheds that are classified as properly functioning; these are Tom Lavin and Lewelling, pages D-7 and D-8 of the FEIS.

The 1993 USDA Forest Service Pacific Southwest Research Station report "Research and Cumulative Watershed Effects" includes a detailed examination of a number of issues relating to CWEs. [General Technical Report PSW-GTR-141, Leslie M. Reid]

These issues include; problems associated with the use of models and modeling, the use of statistics, methods for predicting CWEs including the ECA procedure, and shortcomings associated with the use of ECA procedure. Additional CWE issues include the relation between watershed processes and CWEs, and effects of environmental change on hydrology, and channel sediment transport.

Chapter 8 of the report is titled "Summary of Research and Cumulative Watershed Effects". The first page of Chapter 8, page 93, includes the following sentences. "A cumulative effect is a change influenced by multiple, progressive, or repeated activities. Effects can accumulate through time or grow by contributions from multiple sources. Accumulations through time require that either the triggering mechanism be persistent, or the recovery time be greater than the period between disturbances".

On page 94 of Chapter 8 there is a paragraph that includes the following sentences. "Few predictive models for watershed processes can assess the results of interactions between processes. For example, a temperature model may accurately predict changes occurring from increased flow, but the thermal impact of secondary effects, such as that due to the loss of riparian vegetation from destabilized streambanks, are not predicted by a flow-based model. Similarly, changes in sediment input can alter channel morphology, which may then modify rates of sediment input from bank erosion."

The following sentences are found in the paragraph immediately following the paragraph cited from page 94. "Our current inability to accurately calculate rates of sediment

accumulation and scour in channels as a function of sediment input and flow is of particular concern. These mechanisms are the driving force for altering channel morphology, and morphological change affects other watershed processes and frequently impacts resources. Patterns and trends can often be predicted qualitatively, but quantitative predictions are rarely possible.”

There is no indication in the Aquatics section or in Appendix D of the FEIS that a CWE analysis, as described and analyzed in PSW-GTR-141, was performed for the watersheds in the Iron Honey analysis area. There is also no indication that a CWE analysis was performed for the watersheds in the Little North Fork River system below the Iron Honey analysis area, which would be impacted from the proposed logging with Alternative 8.

An authentic CWE analysis would have provided information and data regarding the degree of short-term and long-term effects to fisheries and fisheries habitat in the watersheds within and adjacent to the project area from the proposed logging. An authentic CWE would also have described the extent of the ongoing degradation in combination with specific degradation that would occur in one or more Creeks in the project area due to the proposed logging.

WATSED Model issues:

KEA in our June 2, 2000 comment letter raised the issue of whether a personal computer version (PC) of the WATSED model was used as part of WATSED modeling. Appendix A of Iron Honey FEIS, pages A-10 through A-13 does not mention this issue and there is no information in Appendix D that addresses the issue of whether a PC version of WATSED was used for WATSED modeling.

The Supplemental FEIS should supply the requested information that would indicate if a PC version of WATSED was used as part of the aquatics analysis. If a PC version exists, the ROD should also indicate if the PC version has the same capabilities as the IBM mainframe version.

There is a separate WATSED issue concerning changes to a watershed from what was listed in Appendix D of the DEIS and what is listed in Appendix D of the FEIS. In the DEIS on page D-5 of Appendix D, Table D-2 describes the characteristics of the Upper and Lower portions of Iron Creek. This drainage area is listed as 6.1 square miles.

In the FEIS on page D-4 of Appendix D, Table D-2 describes the characteristics of the Upper Iron Creek above Rablens. This drainage area is listed as 2.7 square miles.

There is no explanation in Appendix D of the FEIS as to why the size of the watershed was reduced. The remaining Tables, D-3 through D-15 are the same in both the DEIS and FEIS.

The Supplemental FEIS should include information that will explain why the size of the watershed was reduced by 3.4 square miles and indicate whether the size reduction changed any calculations regarding changes to estimated peak flow (Q2cfsm), current

runoff modification, ECAs, estimated annual sediment, and current sediment load modification.

An additional WATSED issue concerns the accuracy of information presented on page III-22 of the FEIS concerning hydrologic recovery of Hudlow Creek and its tributaries. It is indicated in the paragraph titled Stream Flow Regime that average monthly peak flows have been reduced from about 12% to 8% due to vegetative and hydrologic recovery. The Hudlow II timber sale resulted in 475 acres being clearcut from 19 logging units. The logging of the 19 units took place after 1990.

The DEIS on page 64 included the following sentences. "Data indicate that monthly peak flows and rain-on-snow generated peak flow risk is greatly increased in both the East and West Forks of Hudlow Creek, as well as the drainage as a whole (Appendix D). As previously discussed, these increases represent spring peak flows that are longer in duration, an increase in magnitude of rain-on-snow generated peak flows, and an increase in the effective gradients of some of the channels."

It is likely the reforestation of the 475 acres of clearcuts did not begin until 1994 or later. The discussion in Appendix D of the FEIS does not provide information that indicate how there could be a 4% reduction in average monthly peak flows in the Hudlow Creek drainage at the same time there are 475 acres of clearcuts less than 10 years old. The estimated peak flow (Q2 cfsm) is listed on page D-5 as 37 for the 5.4 square mile drainage. This is equivalent to approximately 5,380,574 gallons of water moving every hour during peak flows on average every two years. The Functioning-at-Risk classification indicates the drainage has not recovered from logging that occurred in the drainage before the Hudlow II timber sale started. Information obtained by KEA indicates there has been 1,416 acres of regeneration logging in Compartment 302 since 1960.

The Supplemental FEIS should supply data from the WATSED model that would indicate the numbers of acres in Compartment 302 that are classified as having 100% vegetative and hydrologic recovery.

An additional WATSED issue concerns estimates of sediment production. On page A-10 of Appendix A, FEIS, it was stated model results were compared to IPNF gauge data and the results were an overestimation of sediment.

The Supplemental FEIS should include analysis that would indicate if there have been instances when the model underestimated sediment production by up to 300% or more.

WATBAL Model issue:

Questions regarding the use of the WATBAL model were also raised by KEA in the June 2, 2000 letter. On page A-11 of the FEIS, Forest Service response 2(c) indicates there is a Watbal Technical User Guide 3. KEA obtained a copy of the most recent version of Watbal that is used on the Clearwater National Forest (CNF). The CNF version is labeled

WATBAL v.2.0. The Forest Hydrologist indicates on the cover page the Guide was revised on May 24, 2001.

The Supplemental FEIS should indicate whether there is in fact a WATBAL v.3.0. If there is a WATBAL v.3.0 the Supplemental FEIS should indicate the date that v.3.0 was upgraded from the May 24, 2001 revision by the CNF and indicate if v.3.0 is included in the project files.

Net Associated Sediment Risk Model:

KEA raised a number of issues regarding this model in our June 2, 2000 letter. The FS responded on page A-10, Appendix A, FEIS, there is no documented scientific basis for the model.

The Supplemental FEIS needs to indicate the year the Model was first used on the IPNF and Region 1 and indicate the Forests in Region 1 that are currently using this Model.

Aquatics issues/fisheries:

In the FEIS on page III-61 it is indicated that canopy openings contribute to peak water yields by saying that the No-Action Alternative would produce

“a gradual reduction of water yields and an increase in sediment inputs (the later due to no stream crossing removals). The streamflow regime would continue to recover from past timber harvest as the watershed revegetated.”

The FEIS clearly points out that Alternative 6, designed primarily for aquatic improvement, offers significantly superior improvement to the area stream and river habitat saying

“Alternative 6 would be the most beneficial for restoring natural watershed function and condition.”

“removal of 85 percent of the road channel crossings within all the tributaries of the Upper Little North Fork will significantly reduce the length of the channel network and contributing area in these sub-watersheds. With this reduction in the contributing area, it also can be expected that peak flows will be reduced” (FEIS, page III-69).

The IPNF's February 1998 document “Toward an Ecosystem Approach: An Assessment of the Coeur d'Alene River Basin” includes the following language from page 53:

“There are two distinct conditions that are influencing the watershed, streams, and habitats, throughout the basin. Cumulative responses to powerful and frequent slope disturbances, including the massive turn-of-the-century fires (did not happen in Iron Honey) and later management responses, (logging; and did happen in Iron Honey) could easily have provided the triggers for the ensuing

long-term and extensive channel failures – lack of dynamic equilibrium – we are seeing today.”

On page 9 of the Assessment there is the following language concerning stream channels and bedload movement issues in the Basin.

“With the exception of the Rathdrum Prairie, the Coeur d’Alene River Basin is unique in that its landscapes have the highest drainage dissection in north Idaho. The stream channels in the basin store more unconsolidated, alluvial soil and rock material in the stream bottoms and along the toe-slopes than most other areas in the Idaho panhandle. These materials are very susceptible to movement.”

The Assessment also included a separate 8 page discussion titled “Coeur d’Alene River Basin Geographic Assessment: Fisheries”. On unnumbered page 6 there are the following sentences. “The observed differences in relative abundance of habitat types, such as pools, riffles, pocket-water and run within managed and unmanaged watersheds of the Coeur d’Alene indicate land management activities have had a dramatic effects on stream structures. The primary change within streams has been the loss of organic debris and the mobilization of bottom substrate. The result has been wider, shallower, and less stable stream in basin (sic) with land management activities than in basin (sic) without management activities. This is especially true in headwater systems.”

The DEIS on pages 61 and 62, contains the following language.

“The hydrologic regime in Iron Creek and its tributaries has been significantly altered as a result of timber harvest and road building, in four respects. First, it can be inferred from peak flow increases that periods of spring peak flow are longer in duration (Troendle and King, 1983). The timing of runoff from increased water yields is dependent upon air and snowpack temperature and exposure to solar radiation, which are controlled by elevation, aspect, slope, and shading from topography and/or vegetation.

Second, data from the Idaho Panhandle National Forest and several studies (Kappesser, 1991; Christner and Harr, 1992; Harr, 1981) suggest that rain-on-snow generated peak flows increase in magnitude significantly as a result of tree canopy removal.

Third, ... Increases in stream power results in increased probability to create and transport sediment. Data indicates that annual runoff and rain-on-snow generated peak flow risk has been greatly increased over natural levels (Appendix D, Tables D-1 and D-2”.

The DEIS also indicated that the hydrologic regime in Hudlow Creek, Honey, Sob, Solitaire, and Upper Little North Fork have also all been altered in the same four respects as Iron Creek and its tributaries.

On page 72 of the DEIS, and on page III-28 of the FEIS Jones and Grant (1996) are cited. The conclusions found in Jones and Grant (1996) do not indicate watershed restoration work performed before the logging of 1,900 acres will in fact reduce water yields, sediment levels, or the transport of fine and coarse bedload in the Creeks in the analysis area.

On page 77 of Chapter III of the FEIS there is a discussion of the Inland Native Fish Strategy (INFS). The following sentence is included in the INFS discussion. "The original Forest Plan direction actually permitted degradation of water resources at the discretion of the line office, and allowed "significant" degradation after review by the State."

The preface of the IPNF Forest Plan stated "The Forest Plan is in compliance with the National Forest Management Act of 1976 (NFMA); the regulations for National Forest Land and Resource Management Planning (36 CFR 219); and the National Environmental Policy Act of 1969 (NEPA), including the Record of Decision for the EIS covering the Forest Plan." On page II-9 of the Forest Plan under the Water discussion it was stated "Management activities will comply with state water quality standards."

The Supplemental FEIS must list the section(s) of the Forest Plan that allowed "significant" degradation of water resources after review by the State.

The Supplemental FEIS must also indicate whether Amendment No.1 to the Forest Plan, August 1989, also allowed "significant" degradation of water resources after review by the State of Idaho.

Large woody debris:

In the Aquatics section of the FEIS the placement of large wood in a number of Creeks in the watershed is mentioned, including on pages III-31, III-32, III-33, III-35, III-41, III-49, and III-52. There is no discussion on these pages or other pages in the Aquatics section regarding the long-term effectiveness of previous placements of large woody debris in streams and Creeks on the District. The effectiveness of log structures placed in Steamboat Creek during 1993 and 1994 was described in Boston Brook project files. Of the 164 pieces of wood placed into Steamboat Creek in 1993, only 89 pieces (54%) remained after 1995. The 1996 IPNF Monitoring and Evaluation report indicated on page 37 there were instream structures and other improvements in Creeks on the IPNF that were damaged due to the 1996 floods.

Frequent high water events in the Iron Honey analysis area are cited in both the DEIS, page 64, and on page III-21 of the FEIS.

Accurate analysis and expert agency comments need to be included in the Supplemental FEIS regarding monitoring results of the effectiveness of log structures being placed in

various Creeks on the District. The potential results to fisheries and fisheries habitat in the analysis area if installed log structures were to fail due to high flow events must also be described in the Supplemental FEIS.

TMDL:

The main stem of the Little North Fork of the Coeur d'Alene River above Laverne Creek is listed under Section 303(d) of the CWA (Act).

The Act at Section 502 (19) defines pollution as the "man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water."

The main stem of the Little North Fork currently is not in compliance with sections 101(a)(2) and 303c of the Act as it applies to "serve the purpose of the Act".

The Supplemental FEIS must include language that indicates whether the 1998 Idaho Administrative Code, as cited on page 79, Chapter III of the FEIS, supersedes TMDL regulations found in 40 CFR 130.7 and Section 303(d) of the Act.

The information presented on page 79 of Chapter III regarding the current requirements for the Little North Fork above Laverne Creek does not conform to the TMDL information found in the following EPA documents. "Stressor Identification Guidance Document, EPA/822/B-00/025, December 2000, and "Protocol for Developing Sediment TMDLs, first edition, EPA 841-B-99-004, October 1999.

The Act does not allow for a net increase in the pollutant of concern, (sediment). The Forest Service's statement in the FEIS, at A-16 of Appendix A, that Section 303(d) allows for an increase in pollution to an impaired waterbody such as the main stem of the Little North Fork Coeur d'Alene River is not accurate.

Logging:

The following information is being entered into the record regarding the amount of logging that has taken place in the two Compartments where the entire 1,900 acres of proposed logging would take place. Information obtained by KEA indicates the size of Compartment 304, Honey, is 4,749 acres. Approximately 1,597 acres in this Compartment have had regeneration logging, of which 1,356 acres were clearcut after 1961. Compartment 305, Iron, is 8,979 acres in size. Approximately 2,532 acres in this Compartment have had regeneration logging, of which 1,567 acres were clearcut after 1950.

Rain-on-snow/mining cleanup:

The Forest Service neglected to fully address the issue of rain on snow flooding in the short-term. As stated in the FEIS it will take at the very minimum five to nine years for the project area to begin vegetative recovery. A major concern on this issue is that during the five to nine year period the EPA will be implementing activities to remedy problems caused by over 100 years of heavy metal contamination in the Coeur d'Alene River

Basin. During the five to nine year time span the project area will be at high risk for one or more rain-on-snow events.

Since mining began in 1886, thirteen major floods have inundated the floodplain of the CdA River valley, and 26 lesser floods have flooded much of the valley floor (S.E. Box, unpub. compilation, 1994, from USGS Water Supply Papers and Water Resources Data Reports). Since then there was the large 1996 flood. This flooding was most likely enhanced by resource extraction, and had a large effect on mining waste transport from the main stem of the CdA to Lake CdA and the Spokane River. It should be noted that one-third of the Spokane Valley/ Rathdrum Prairie Aquifer (the sole source drinking water for nearly half a million people) is recharged by Lake CdA and the Spokane River. There is evidence that heavy metal contamination as effected the drinking water for Spokane residents. (Marti and Garrigues, 1999) When there are flood events the likelihood of heavy metal contaminates entering the aquifer is increased.

Winter rain-on-snow floods are less frequent but more aggressively erosive, with higher flow velocities over shorter time intervals. Winter floods commonly begin when the lake level is down, and hydraulic differential between the upper basin and the lake is high. During winter floods tailings-bearing sediments are scoured from the channel, eroded from the banks, deposited on the floodplain and carried into and across CdA Lake and on to the beaches of the Spokane River (as observed during the winter flood of 1996). Multiple-storm winter floods include those of 1917, 1933, 1961, and 1982. Single-storm winter floods include those of 1946, 1951, 1964, 1974, 1980, 1990, 1995, 1996, and 1997 (S.E. Box, unpub. compilation, 1994, from USGS Water Supply Papers and Water Resources Data Reports).

Rain-on-snow events are common on mountain slopes within the transient-snow zone of the Pacific Northwest. These events make more water available for runoff than does precipitation alone by melting the snowpack and by adding a small amount of condensate to the snowpack. In forest openings (such as those resulting from clearcut logging), the amount of snow that accumulates and the turbulent- energy input to the snowpack are greater than below forest stands. Snowmelt simulated during three rain-on-snow events (measured in a previous study in a clearcut in the transient-snow zone of the H.J. Andrews Experimental Forest in Oregon) demonstrated that melt generation is most sensitive to turbulent- energy exchanges between the air and the snowpack surface. As a result, the most important climate variable that controls snowmelt is wind speed. (Marijke van Heeswijk et al, 1995).

Also, the FEIS omits critical factors that determine the intensity and sensitivity of rain on snow events. These factors are slope, aspect, the amount of existing hydrologically unrecovered canopy and the amount of proposed canopy removal. Kappesser's rain on snow model determines the risk factor for rain on snow based upon the above criteria. The FEIS does not disclose the existing risk using the above factors. There are references to the importance of considering these factors in FS and other scientific papers.

The FS neglected to review wind velocity increase, among other factors that effect rain on snow events, in the FEIS. Vegetation removal of this magnitude will clearly result in wind velocity increases. As is stated above this could increase the severity of flooding in the basin. We suggest after modeling the increase of wind velocity the Forest Service enter the data in to Riverside Technology, Inc.'s Snowmelt Equation (See Figure 1). This will show the chance for flooding will increase below the Iron Honey project area. As stated previously, increased flooding could cause serious problems for the EPA's 359 million dollar cleanup project.

Flooding of this type also causes stream channel degradation, meaning much of the remediation work done in the project area could be destroyed. The FEIS describes the long history of stream channel problems in and below the project area. The rain-on-snow analysis lacks a high degree of accurate scientific analysis required by NEPA.

Snowmelt During Rain-on-snow Periods

$$M = 6.12 * 10^{-10} * \Delta t * [(T_a + 273)^4 - 273^4]$$

$$+ (0.0125 * P_x * T_a)$$

$$+ 8.5 * UADJ * \Delta t / 6 * [(0.9 * e_{sat} - 6.11) + 0.00057 * P_a * T_a]$$

M = snowmelt (mm)

Δt = Computational time interval (hours)

UADJ = average wind function during rain-on-snow periods (mm * mb⁻¹ * 6hr⁻¹)

T_a = temperature of the air (°C)

P_x = water-equivalent of precipitation (mm)

e_{sat} = saturation vapor pressure at the air temperature (mb)

P_a = atmosphere pressure (mb)

(Fig. 1, Kane, Michael, Riverside Technology, Inc Equation for rain on snow melt during rain on snow events.)

Soils:

We are concerned that the Forest Service will be in violation of a fundamental requirement in the National Forest Management Act to:

"... ensure that timber will be harvested from National Forest System lands only where (i) soil, slope, or other watershed conditions will not be irreversibly damaged. (iii) protection is provided for streams, stream banks, shorelines, lakes, wetlands, and other bodies of water from detrimental changes in water temperatures, blockages of water courses, and deposits of sediment, where harvests are likely to seriously and adversely affect water conditions or fish habitat ." 16 USC 1604(g)(3)(E). The implementing regulations at 36 C.F.R. § 219.27(a)(1) state, "All management prescriptions shall... Conserve soil and water resources and not allow significant or permanent impairment of the productivity of the land."

Logging with conventional ground-based equipment will cause unusually large amounts of soil compaction because of the very large areas to be treated. Removing over 26 million board feet of timber will further degrade soils and impact soil productivity. The loss of the A Horizon for soils that have trees or equipment dragged through them is likely, but the long-term impacts of this action are not disclosed.

Soil loss and compaction from forest management operations reduces forest productivity by loss of organic matter important for nutrient and water storage and release; direct loss of nutrients in the mineral portion of the soil; reduction of pore space available for soil and water storage, use and exchange with the biota; increase in soil strength impeding the growth of roots; and loss of microorganisms necessary for healthy soil and plants (Curry, 1971; Froelich, 1988; Brady, 1974).

Froelich (1988) reported a 5-15% growth reduction in 17-30 year-old stands of Ponderosa pine and a 10-50% growth reduction in seedlings from soil compaction. These reductions are for height—Froelich reported that the stand volume reductions were 69-73%. He further stated that the rule of thumb was that it takes the length of a harvest rotation to recover to normal densities. Helms (1984) reported a 59% reduction in stand volume of soils of highest bulk density over soils of lowest bulk density in his study of 15-year-old Ponderosa pine on the Tahoe National Forest. Annual shoot growth was reduced by 43% at age 2 years and 13 percent at age 15 years. A review of the literature finds that 40-70 years is required for recovery to normal density with subsoil effects taking the longest to recover.

Coats and Collins (1981), using a number of sources, estimated productive capacity losses from compaction (7.5-10%), area in roads and landings (2-15%), burning (nitrogen loss of 10% of total nitrogen storage; 0-5%), and surface erosion (cumulative 10 year loss; 15-30%) for a hypothetical management unit on steep granitic soils in California. Total productive capacity loss would be 25-60%. This loss would be persistent for at least one rotation length. Additional activities during that time would cause cumulative productivity losses.

Curry (1971) details the degradation vortex that occurs when soil loss degrades the site to the extent that its ability to reproduce vegetation of a similar type or productivity is compromised and thus longer and longer periods of regeneration are required for each succession. As an end member of this process, the researchers of the Hubbard Brook experiment report that they believed that the ability of the site to support the native vegetation had been compromised (Bormann, 1968). One of the authors recalls a silviculturalist from his days with the Forest Service remarking that he fully expected that clearcut operations (1980s style) would degrade a site one-site class per rotation. Froelich (1977) confirms this in stating that skid trails are reduced to one site class below that of the surrounding area.

Thinning operations can have many of the same affects depending on the use of machinery and roads, whether the material is exported offsite, whether the thinning facilitates other degrading uses (e.g., off-road vehicles, unrestricted livestock grazing), and the near-term weather/runoff conditions.

Soil and soil productivity are irreplaceable in human timescales; therefore, management activities that accelerate erosion or create soil compaction must be prohibited."

The FEIS discusses impacts on soils in terms of the compaction and landslide potential (FEIS at II-39) but bases the analysis on aerial photographs, rather than actual on-the-ground surveys. The site-specific analysis and testing apparently has not been done. The discussion of direct and indirect effects mentions units that may be marginal, it would be helpful to see a list of the units, where they are on the map, and whether the units have been tested according to the protocols that we list below:

2.2 - SOIL QUALITY STANDARDS

The National Forest Management Act requires that lands be managed to ensure the maintenance of long-term soil productivity, soil hydrologic function, and ecosystem health. Soil resource management will be consistent with these goals.

Soils can be impacted by compaction, puddling, displacement, burning, erosion, and mass movement during or following management activities. Impacts and aboveground organic matter losses that adversely affect hydrologic function or cause losses in site productivity are detrimental. Soil quality standards, or goals, are the management of soil properties and site characteristics in a manner consistent with the maintenance of long-term soil productivity, hydrologic function, and ecosystem health. The ultimate objective is to maintain natural soil structure and fertility. Because soil structure and fertility are difficult to quantify, surrogate soil parameters are often monitored. These parameters include soil disturbance, severely burned soil, ground cover, and aboveground organic matter (litter and woody debris).

Guidelines used as indicators of soil quality, and as measures of conformance to soil quality standards, are presented below.

1. **Soil Disturbance.** If system roads are evaluated as part of an activity area, at least 80% of the area must have soil that is in satisfactory condition; that is, no more than 20% of the area may have detrimentally disturbed soil. If system roads are evaluated separately and are discounted as part of the activity area, at least 85% of the area must have soil that is in satisfactory condition. Examples of management options limiting the effects of soil disturbance, along with appropriate mitigation measures, are listed in Exhibit 1.

Figure II-16 of the FEIS shows a comparison of compaction between alternatives, by acre, but does not disclose how those numbers were obtained, or how they relate to the 80% satisfactory condition. The discussion of III-128-135 gives percentages, but it is unclear whether this is including roads and skid trails, and whether individual units are near or at the threshold of damage.

2. **Soil Displacement.** Soil displacement will be evaluated along line transects. Detrimental displacement is displacement that results in the loss of either 1 inch or one-half of the humus-enriched surface layer (A-horizon), whichever is less. The loss of the litter layer alone could be detrimental on some marginal sites.

3. **Soil Compaction.** Bulk density is used as an indicator of soil compaction. An increase in bulk density correlates to decreases in soil porosity, air exchange, root penetration, and infiltration. and permeability. A 15% increase (20% in volcanic ash soils) in natural bulk density or a 50% reduction in infiltration rate is considered to be detrimental. Bulk density measurements are generally taken 1 inch below the mineral soil surface using a coring tool, or other appropriate method. Measuring soil infiltration rates may be appropriate when monitoring rangelands since the compacted layer is often too thin to measure using core sampling techniques. Changes in the natural soil structure are also good indicators of soil compaction if a more qualitative method is desirable.

The FEIS does not disclose whether any bulk density measurements were taken of existing condition or how that will change with the alternatives. The impacts of tree removal and compaction affect on site moisture retention, which in turn impacts watershed dynamics (Amaranthus, 1989)

4. **Above-Ground Organic Matter.** Litter and large woody debris are required to retain nutrients and microorganisms necessary to supply and cycle nutrients needed to maintain site productivity.

- a. **Litter.** Suggested litter retention is 30% (Dumroese, 1993).

- b. **Large Woody Debris.** The minimum amounts of large woody debris required to maintain adequate nutrient supplies to sustain site productivity will vary by habitat type and fire history. These values are being supplied by research studies (Harvey, 1987).

The FEIS at II-22 states that fine organic matter and large woody debris would be retained on the ground for necessary sustained nutrient recycling. While a concern about

potassium levels is mentioned in the FEIS, it appears to be based on a general concern about low potassium geological formations, rather than actual site (unit) data. Since substantial amounts of biomass have already been removed, we would like to see actual site conditions analyzed for the baseline condition. Under the proposed alternative 70% of the canopy cover will be removed, 50% of the foliage and branches, and an unknown percentage of the total woody material will be removed. This is a significant concern that should trigger site specific testing.

We believe the proposed logging units may already be at a nutrient deficit, and removing a high percentage of the remaining material may further impact the soil productivity. In addition we have cited numerous studies that look at decay rates, soil productivity, the relationship of soil organisms, bryophytes, fungi, arthropods and lichens to the soil resource. With the exception of a brief mention of mycorizal fungi, none of these are discussed in the FEIS.

We would like to know how the compaction and soil conditions were monitored. Below is the protocol that is to be used:

2.4 - MONITORING METHODS. Activity areas may be sampled by one or both of the following strategies:

- 1) an entire activity area may be sampled at grid points or along line transects, or
 - 2) activity areas, or soil delineations within activity areas, may be stratified by management impact and sampled to determine differences among impacted areas.
- Disturbance can simply be categorized as either within or exceeding guidelines, or it can be quantified by classes or continuous variables.

2.41 - Areal Extent Sampling. Unstratified sampling (strategy 1) is most appropriate for sampling soil displacement, puddled soil, and qualitative estimation of soil compaction where the record for each point or line segment is simply whether the impact is or is not detrimental (according to the severity guidelines). Stratified sampling (strategy 2) has the advantage that disturbance within each of the strata can be characterized more efficiently, with less sampling than would be necessary without stratification. It is most appropriate for sampling bulk density and is measured as a continuous variable. The significance of differences between strata can be determined by Student's t-test where there are only two strata (disturbed and undisturbed), or by analysis of variance where there are more than two strata.

1. Determine Sample Size. The number of samples required depends on the desired precision. Where the precision is crucial, preliminary sampling will allow computation of the required number of samples utilizing Student's t distribution, which is given in any basic text on statistics.
2. Sample Design. Monitoring data are obtained either by sampling at points, or by measuring lengths of disturbance or impact along randomly-selected lines or on grids. Step-point sampling is generally adequate. Soil type and land use or disturbance strata

may be sampled independently to improve precision.

2.42 - Soil Sampling Techniques. Soil displacement, puddling, severely burned soil, ground cover, and above-ground organic matter can be determined visually and measured. Soil compaction can be measured semiquantitatively with a spade or quantitatively with a cone penetrometer or by collecting, drying, and weighing samples of known or determined volume (core sampling). Visual and tactile (spade) estimations of soil compaction are very effective and can be calibrated with soil strength (Clayton, 1987). Another suggested method, combining semiquantitative (eg., none, low, moderate, high) with quantitative techniques, is to establish classes of compaction using a spade. Representative soil bulk density core samples are then collected from each compaction class, and bulk density is determined. (It is important to adjust bulk density samples to account for coarse fragments).

Bryophytes, Fungi, Lichens, Arthropods, Mollusks, and Amphibians:

Woody debris, underground wood, and snags will vary considerably between alternatives, yet the FEIS fails to disclose how the action alternatives will leave the project area, and how logging will impact bryophytes (Andersson and Hytteborn 1991), fungi (Harvey, et al 1981, Larsen 1978, etc.), lichens (Soderstrom, 1988), arthropods (Moldenke and Lattin. 1990), mollusks, and amphibians (Welsh 1988). These citations are germane to this discussion and their research should be analyzed and incorporated into the Iron Honey project.

In the 1990's the Northwest Forest Plan was created and implemented to protect forest resources, including. That Plan recognized the importance and inter-relations between these species and mammals, birds and plants. The Plan created standards to Survey and Manage these species. We contend that this methodology and implementation is needed and required on the IPNF to meet NFMA viability standards.

It is well recognized by scientists that all forests contain bryophytes, fungi, lichens, arthropods, mollusks, and amphibians and that they play an important role in sustainability and successional processes. Arthropods alone constitute well over half of the biological diversity in late successional and old-growth forests, yet their role in the decay of woody debris and soil productivity is never discussed in the FEIS. Despite the dramatic changes in the past, and proposed for the Iron Honey project area, the IPNF projects have failed to disclose the presence, habitat condition or viability of these species.

Soil Productivity, Woody Debris (WD), Decay of Retained Tops

The basic microbial growth rate (the rate at a WD quality of unity) increases with ambient temperature but decreases along the gradients of July precipitation-to-potential evapotranspiration ratio and January precipitation under forested conditions; and WD decay may be accelerated or hampered after canopy removal, depending on local air humidity. (Yin 1999). Vogt 1986, Edmonds 1988, Freedman 1996 and others) discuss

the nutrient dynamics of above-and below ground wood and the importance of those processes on a host of other species. The loss of on site moisture by tree removal is important (Harmon1995) and the timber sale units will experience very different decay processes and therefore productivity as a result.

The FEIS should disclose that the large-scale removal of biomass in the Iron Honey project would have impacts on nutrient flows that are significant, but not analyzed in the FEIS. The nutrient losses from logging go beyond potassium (Clayton 1985 and other authors), for example there is a concern with phosphorus, which is not discussed in the FEIS.

The impacts of the loss of biomass on nitrogen in soils, carbon sequestration and micronutrients are not discussed in the soil productivity section, yet impacts can be significant (Jurgensen1984, 1987, 1990 and 1997)

The FEIS fails to disclose the effects of continued fire suppression on soils and related processes. The FEIS also fails to disclose the effects of long-term artificial disturbance processes (logging) on soils and related processes in their efforts to mimic natural disturbances and trend the ecosystem towards historical conditions. For example, continued fire exclusion is known to slow the recycling of carbon and nitrogen (Smith & Fischer, 1997). Logging and it's related ground disturbance has numerous impacts on soils and soil microorganisms.

The FEIS fails to disclose the effects of this project on soil productivity. 75% of the project area falls into habitat types that are under fire group eight where damage to the volcanic ash layer present in soils decreases productivity substantially (Smith & Fischer, 1997). The FEIS fails to adequately consider this issue.

Trending the Iron Honey ecosystem towards historical conditions:

In the Purpose & Need, the FEIS states that an objective of this project is to “(t)rend the vegetative species composition toward historical levels...” (pg. I-2) But, an important question in response to this “objective” is what are historical levels, recognizing that a diversity of species composition was present across the landscape and that no one point in time should be used as a basis? To answer this, it is important to establish the dominant processes that historically shaped the composition of tree species in this area. Some of the processes in this area are fire regime and return interval, annual precipitation, slope, aspect, elevation, and geographic location.

Through the FEIS, we learn that fire played a dominant role in shaping the forests of this area historically. “Prior to European settlement in the Coeur d’Alene River subbasin, fire was the most important disturbance occurring across the landscape (pg. III-85). The FEIS gives a mean fire return interval for lethal fires of 203 years and a mean fire return interval for all fires of 84 years (Ibid.). Other research indicates that stand-replacing fires probably occurred at average intervals of 200 to 250 years, but areas of the N. Fork Coeur d’Alene River basin showed individual intervals as short as 18 years and as long as 452

years (Smith & Fischer, 1997). Thus indicating a wide spectrum of diversity for species composition.

Leiberg (1897) gives us a glimpse back in time of generalized forest conditions typical of the project area, describing regions covered with white pine and densely timbered areas. He goes on to describe the northern faces of the mountains to be covered in young growth (white fir) frequently forming the densest of thickets, not to be penetrated except by a liberal use of the ax. Leiberg (Ibid.) described the white pine zone to be stands of forest very close, with a vast amount of vegetable debris, dense growth, and a diversity of conifers. Seldom did he find pure stands of white pine. There was very little grass, indicating a closed canopy, and heavy coverage of mosses, liverworts, and fungi. Trees per acre varied from 600 to 3,000 depending on dbh, and his report indicates saplings on the order of thousands in the same space that the large growth occupied. Speaking to fire, Leiberg (Ibid.) found that the fires of the white pine belt were by far the most destructive and numerous than other conifer zones and he describes the forests in the Coeur d'Alene as being honeycombed with burns in all directions and sizes.

As for precipitation, the FEIS notes 25-55 inches per year (pg. III-84) and that the analysis area is dominated by moist habitat types indicative of the heavy rainfall that occurs (pg. III-89). Habitat types, which reflect the influence of slope, aspect, elevation, and geographic locations, are given for the project area as follows:

- 88% habitat types are warm/moist
- 6% habitat types are cool/moist
- 5% habitat types are warm/dry
- 1% habitat types are cool/dry

75% of the project area is of the forest habitat types found within fire group eight (Smith & Fischer, 1997). This is important in that it allows us to generalize about the historical species composition of the project area. The publication cited previously indicates that these areas would have the following characteristics:

- Floristically diverse with up to 10 species of conifers occurring during succession.
- Climax species include western hemlock and western red cedar.
- Seral species include western white pine, western larch, grand fir, Douglas-fir, subalpine fir, Engelmann spruce, ponderosa pine, and lodgepole pine.
- Very productive, reflected in relatively heavy fuels. Despite this, fire hazard remains low to moderate because understory humidity is usually high and understory vegetation usually remains green throughout the summer.
- Fuels in a stand opened by fire or other disturbance dry more quickly in subsequent years, so these stands may be subject to reburns with severe fire behavior.
- Timber harvesting increases woody fuel loadings.
- Western larch is the more common relict species, followed by Douglas-fir, ponderosa pine, and western red cedar after a fire.
- Low and mixed-severity fires increase structural complexity within stands and heterogeneity across the landscape.
- Profuse, diverse regeneration of herbs and shrubs after fire is typical.

- The replacement of western white pine by Douglas-fir and grand fir as seral species following disturbance accelerates succession to climax species.
- Fires occurring early in succession reduce the importance of western white pine.
- Continued fire exclusion slows the recycling of carbon and nitrogen. Exclusion of low and mixed severity fire reduces vigor and crown volume of western larch and thus reduces fire resistance. Loss of mixed-severity fire may lead to a coarser-grained landscape pattern and reduced ecological diversity (Brown and others, 1994)

In order to trend the ecosystem towards historical levels, logging is proposed in the FEIS “to better mimic the large stand-replacing fires that occurred historically” (pg. I-5). Hence the use of regeneration harvests, which are very similar to clearcuts. It is important to note that this project makes no attempts to mimic low or mixed severity fire effects despite their historical role in this area. Smith & Fisher (1997) report that low and mixed-severity fires increase structural complexity and ecological diversity within stands and heterogeneity across the landscape. These attributes are not discussed either in relation to existing conditions or effects in the FEIS.

At this point, it is also important to note that the FEIS is proposing logging as a form of stand conversion to “early seral species” in order to create forests “more resistant to insects and disease”. “Stands with a major component of these (western white pine and western larch) early seral species would also be more resistant...” (pg. I-3)

Several important questions now come to mind:

- Are forests dominated by “shade intolerant, early seral species” (pg. III-83) the norm historically for this area?
- How well do regeneration harvests mimic stand-replacing fires?
- Are current levels of insects and disease outside of endemic levels to suggest a need for such a radical alteration (logging and the associated ground disturbance)?

A noted confusion in the FEIS is that stand-replacing fires apparently did not promote long-lasting, early seral species forests. The FEIS states, “Because most of this area did not burn in the large fires of the late 19th and early 20th centuries, there was an abundance of large white pine, which attracted the logging industry in the first half of the century.” (emphasis added; pg III-1) Leiberg (1897) supports this in stating that a great abundance of western white pine was found in the **unburned** region of the North Fork (emphasis added).

The historical presence of white pine at the time period noted above is used through the FEIS as justification for stand conversion. However, the FS fails to note that this time period of abundant white pine directly parallels a time period in which stand-replacing fires were absent. Thus, it appears that the stand conversion that this project is promoting is structured around a point in time in which a dominant disturbance process was lacking, thus questioning the means and the goal that the FEIS proposes.

Equally alarming is the fact that in promoting this stand conversion, the FS is not managing the landscape on a sustainable, long-term basis. By promoting the values of “shade intolerant, early seral species”, the FS leads the public to believe that this project will maintain early seral species in this watershed, however that is impossible (naturally) due to the nature of forest succession and disturbance processes. The FEIS completely ignores these considerations, which are critical to the cumulative analysis of this project.

The FEIS also fails to acknowledge the diversity inherent within forest succession and the establishment of seral species following disturbance. The Iron Honey project proposes narrowly focused approach that is not reflective of historical diversity. For example, Smith and Fischer (1997) note that habitat types under fire group eight typically follow 3 generalized pathways of forest succession following disturbance. These differ in part by which species are first to regenerate following disturbance. In scenario 1, western white pine and western larch are the early seral species, in scenario 2, cedar and grand fir are major seral species, and in scenario 3, lodgepole pine dominates early succession. As can be expected, the results of each pathway are distinctly different. The FEIS fails to acknowledge and discuss this diversity and instead places all their bets on one means to an end that itself is temporary.

In addition, Smith & Fischer (1997) noted that species composition following disturbance depends on the site itself, the species present before the fire, the size and intensity of the burn, and postburn conditions. In addition, development varies with seed source, presence and vigor of pathogens, and disturbance history. None of these factors are discussed in terms of effects or existing condition in the FEIS.

Through artificial stand conversion, this project may and is likely to affect numerous other components of the ecosystem that have evolved with a diversity of disturbance processes and a diversity of forest successional pathways, not with artificial restoration means. All of these effects should have been disclosed in reference to artificial stand conversion and the species composition of a fixed point in time.

We have the following questions then:

- How does this artificial stand conversion affect the ecosystem components beyond forest structural stage both locally and across the landscape, both in the short- and long-term?
- What are the effects of stand conversion to wildlife habitat, hydrological processes, water temperature, riparian integrity, soil microorganisms, soil temperature, genetic diversity, bryophyte populations, ecological integrity, nutrient cycling processes, etc., both in the short- and long-term?

The FEIS also fails to adequately disclose the effects of using logging as a mechanism to replace fire. And, the FEIS fails to disclose that fire suppression will continue, which continues to eliminate a dominant force that shapes and maintains the health of these forests. Thus leading the reader to the assumption that the FS plans to use logging as the dominant disturbance process in these watersheds for the indefinite future. However, the FEIS fails to disclose this, to adequately disclose the long-term impacts of using logging

as a means to mimic a natural disturbance process, and fails to disclose the mean return interval that logging will occur on in order to maintain these “insect resistant” species.

By attempting to utilize logging as a “restoration mechanism”, the FS indirectly puts forth the notion that logging is an acceptable replacement for fire. On page III-116, the FEIS indicates that additional logging would only be excluded from this watershed for 30-40 years, insinuating that logging is the preferred displacement process for this watershed in the opinion of the FS. This indicates a decision already made and thus a bias on part of the decision maker.

Also, what exactly are the long-term impacts associated with a shift in disturbance process from fire to logging? This should have been discussed in the FEIS for the public and decision maker to consider. The FEIS indirectly acknowledges the importance of this issue in the FEIS, “If the role of fire is altered, or removed, this will produce significant changes in the ecosystem” (pg. III-138).

While admittedly the role of fire had already been altered and removed, the FS is now justifying that action under the heading of “restoration”, which itself has not been adequately discussed and disclosed. Further justification for this concern is found on pg. III-145 of the FEIS where the FS acknowledges that “it is essential for managers to consider that current conditions may be considerably different from those conditions that occurred historically” when attempting to mimic natural disturbances. It is disappointing that the FS is willing to raise this issue in terms of the use of prescribed fire, but fails to review this in regards to logging and the associated ground disturbance which may in fact have much greater implications.

Lastly, turning to the subject of insects and diseases, the FEIS is misleading about the need to log to reduce risks from insects and disease. By the FEIS’s own admission, there is no risk currently and to propose to essentially clearcut 1900 acres to reduce a non-existent risk is inappropriate given the known and unknown effects of the logging and associated ground disturbance.

Numerous statements in the FEIS lead one to the conclusion that insects and disease are at normal levels and will continue to exist at normal levels.

-“increased **endemic** levels” (pg. III-87) emphasis added

-“does not have the same epidemic levels of beetles that many other areas are experiencing” (pg. III-90)

-“Douglas-fir are not as common here...the forest cover type on only 15% of the Iron Honey Analysis Area” (pg. III-90)

-“conditions (from trees killed by pests) are similar to those found by Leiberg (1897)” (pg. III-143)

Furthermore, the FEIS fails to provide any evidence that insects and disease could reach abnormal levels, nor give a definition for what abnormal levels actually are. The FS is clearly aware that the Douglas-fir “epidemics” predicted by the FS on both the Colville NF and Idaho Panhandle NF did not come to fruition as expected.

On page III-145, the FEIS refers to “significant accumulations of additional fuel... from forest pest agents”, which seems contradictory to the statements made previously in the FEIS (see above) indicating that insect and disease agents are at endemic levels. This statement is indirectly used to justify concerns about fire hazard resulting from insects and disease, but is contradictory in relation to what is previously stated.

The FEIS fails to give adequate consideration to the value and importance of insects and disease in forest ecosystem processes. Alternate views to the FS put forth a number of values provided by insects and disease. Insects act as a natural thinning mechanism, eliminating weaker trees and reducing competition among survivors (Schowalter and Withgott, 2001). Insects can retard or advance forest succession depending on moisture levels. In moist situations, where fire is rare and fire-intolerant species crowd pines, insects advance succession by killing pines and making room for shade-tolerant, fire-intolerant firs (Ibid.), which in some forest types are the climax species. The same report suggests that landscape-level changes in canopy cover driven by insects may even influence regional climate. Insect outbreaks produce large amounts of nutrient-rich materials, from insect bodies to plant debris, thereby stimulating decomposition and soil enrichment (Ibid.). Such soil effects relate back to productivity of the site.

Lastly, the FEIS fails to scientifically substantiate their implied bias against insects and disease and instead has created an objective of this project to create forests more resistant to insects and disease. This implied bias is clearly not in line with an ecosystem approach, which values and accounts for *all* the processes and factors within an area. By purporting a need to resist insects and disease, the FS falsely portrays insects and disease as an enemy that requires premeditated defensive action. This is unacceptable in light of the role that the FS plays in educating the public about “ecosystems”, in providing holistic stewardship of public lands, and in providing objective information. This is unacceptable in that it creates a biased document that does not meet the terms of NEPA for providing unbiased factual material for the public and decision maker.

Further notes:

The FEIS has not provided consistent nor ample evidence that the project area was historically dominated by white pine, ponderosa pine and western larch over the thousands of years that it has evolved.

The FEIS states that “over 40 percent of these areas (were) dominated by white pine” but gives no evidence nor cites any report for this statement. (pg. III-85)

The FEIS fails to analyze regional climate changes in conjunction with the proposed activities and effects of this restoration project, yet the FEIS acknowledges that climate change is directly implicated in the major fire patterns that have shaped this ecosystem for decades (pg. III-140).

The FEIS makes inappropriately subjective and emotional statements regarding the use of fire alone for stand restoration as being “downright harmful and wasteful” (pg. III-145).

That the FS chose to cite this particular reference in assessing the effects of alternatives indicates that this is “fact” and therefore should be used in decision-making. There is no scientific evidence supporting such a statement as “fact”. By presenting this emotional opinion, the FS biases the material presented to the public and decision maker. We are sure that you are aware that it is not in accordance with NEPA.

The FEIS fails to give adequate consideration to the fact that fuels and fuel accumulation are natural processes of forests, especially moist site, multiple species forests. By such failure, the FEIS fails to provide necessary information about the benefits of dead wood, fuels, and dense forests to wildlife and soils.

The FEIS fails to consider why fire, followed by planting could not be a suitable restoration technique.

Seral species development varies with aspect, slope, and elevation. The FEIS fails to take this into consideration with their blanket prescription for artificial regeneration. Individual units are not assessed with enough detail.

Despite the lack of sufficient old growth in the area, the FEIS proposes logging of mature stands and fails to acknowledge that the replacement of western white pine by Douglas-fir and grand fir as seral species following disturbance accelerates succession to climax species (Smith & Fischer, 1997). In an area lacking in old growth, this may be an important consideration for retaining stands of Douglas-fir and grand fir. Relating to this, the FEIS fails to recognize that conditions other than historic may need to be maintained in order to provide essential habitat for at-risk wildlife until such time as suitable habitat can be restored more broadly on the landscape (Wisdom et al., 2000; ICBEMP, 2000).

The FEIS fails to consider the impacts of logging to increased fire risk and increased levels of insects and or disease. Consider that McKelvey et al. (1996) state:

"Logging on Forest Service and private lands has been primarily of the large overstory trees--accelerating growth in the dense understory and increasing landscape-level homogeneity of slash, ... increase the vulnerability of stands to damage from wildfires."

Skinner and Chang (1996) state:

"Current management strategies and those of the immediate past have contributed to forest conditions that encourage high-severity fires."

The Fish Bate Timber Sale analysis file from the Lolo National Forest (pg. 152) notes:

Repeated intermediate harvests, partial harvesting, or uneven-age management, such as economic selection cutting or sanitation/salvage cutting could increase both the frequency and severity of root diseases in stands. Even one harvest entry in stands has been found to greatly increase the frequency of root disease compared with stands that have not had tree harvest entries. Studies have shown a doubling of root disease frequency in stands on the Lolo National Forest in

Montana with at least one harvest entry compared to those with no history of tree harvest.

The FEIS fails to adequately disclose that proposed logging methods could prolong Douglas-fir beetle outbreaks when stumps remain or when slash greater than 8-inch diameter remains. In the book, *Western Forest Insects*, R.L. Furniss and V.M. Carolin (1980) note that in British Columbia stumps are a significant source of Douglas-fir beetles.

The FEIS fails to adequately disclose that logging methods could increase the incidence of root disease. Douglas-fir beetles are known vectors of fungi known to be pathogenic to Douglas-fir (Harrington & others, 1981; Ross & Solheim, 1997). Certain fungi may be associated with successful mass attack of Douglas-fir (Lewinsohn & others, 1994). Also, Douglas-fir beetles and other insects may carry root disease pathogens that may be vectored to trees during maturation feeding or unsuccessful attack (James & Goheen, 1981). Douglas-fir beetles and other insects may vector a particularly virulent plant pathogen known as black-stain root disease (Goheen & Cobb, 1978; Witcosky & others, 1986; Landis & Helburg, 1976). Black-stain root disease may not be host-specific and, once established in a stand, may increase as a problem over the years (Smith & Graham, 1975). Trees declining from black-stain root disease may harbor a succession of insect vectors (Witcosky & Hansen, 1985). Certain logging practices and road construction are known to exacerbate conditions that favor black-stain root disease spread (Harrington & others, 1983; Hansen, 1978). Harvest and mechanical thinning produce abundant food and breeding sites for several black-stain root disease insect vectors and possibly infection courts for plant pathogens (Harrington & others, 1985). Also, logging stumps and tree wounds caused by logging operations may produce volatiles that are attractive to bark beetles and other potential plant disease vectors (Rudinsky, 1966).

Livestock grazing:

The FEIS fails to adequately consider the cumulative effects of the effects of this project on livestock grazing. Through this project, a considerable amount of additional "range" will be created through logging and road building. This greatly facilitates the use of this area by domestic livestock and thereby increases the potential for the spread of noxious weeds, increases the likelihood of livestock access to water bodies which can negatively effect water quality and stream bank stability, and increases the risk of fire. The FEIS fails to give adequate consideration to these effects, both directly, indirectly, and cumulatively.

In addition, the FEIS fails to discuss and disclose the interrelationships between domestic livestock grazing and forest health concerns. The Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin (PNW-GTR-382) notes:

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.

Noxious Weeds:

The FEIS fails to adequately consider the direct, indirect, and cumulative effects of this project on existing noxious weed populations, the introduction of new noxious weed species, and the spread of noxious weeds. Furthermore, the FEIS fails to disclose the effects of increased noxious weeds on wildlife habitat, fire hazard, restoration efforts, sensitive plant species, and soils. Even further, the FEIS fails to disclose that this project will result in the likelihood of increased use of herbicides in the project area and the effects therein.

Misc.

The FEIS fails to disclose why western white pine and western larch could not be planted currently in natural or man-made openings that already exist.

The FEIS fails to consider ecological integrity of the area as a whole, and instead focuses its discussions and goals on singular aspects, such as forest health and insect and disease potential. Ecological integrity would imply a hard look and evaluation of the projects effects on biological diversity, soil fertility, genetic diversity conservation, genetic dispersal, and evolution of future biological diversity (SAF, 1993; Perry, 1998).

NEPA:

NEPA at 40 CFR 1502.9(c) (1) requires a Supplemental FEIS “if (i) the agency makes substantial changes in the proposed action that are relevant to environmental concerns; and (ii) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.”

There are significant new circumstances and information relating to the Iron Honey project and substantial changes in the FEIS that are relevant to environmental concerns. The new issues and changes are described in the submitted comments.

Sincerely,



Mike Mihelich, Forest Watch Coordinator
Kootenai Environmental Alliance
On behalf of The Lands Council, and Kootenai Environmental Alliance
208-667-9093

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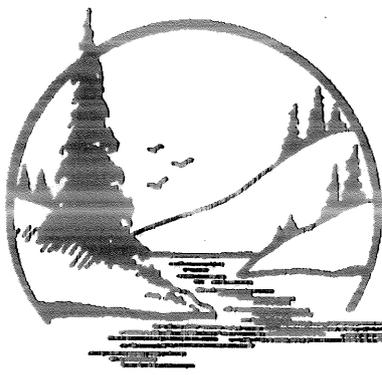
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FEIS-59

DEC 31 2001

CD'A RIVER R.D.

#21

Kootenai Environmental Alliance

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

Coeur d' Alene River Ranger District
Attn: Iron Honey Resource Area Final EIS
2502 East Sherman Avenue

28 December 2001

Re: Public comments on the Iron Honey Final Environmental Impact Statement on behalf of Kootenai Environmental Alliance and the Coeur d'Alene Audubon Society.

The first and only time that Coeur d'Alene Audubon took action to appeal a USFS timber sale was in the early 1990's. Audubon has since tried to maintain a cooperative working relationship with the district, leaving legal challenges and appeals to groups better equipped to deal with the array of complex issues inherent in such endeavors. I was asked by KEA to review sections of the Iron Honey EIS including forest vegetation and wildlife. After reviewing the aforementioned sections, I am compelled to respond to the many inaccuracies contained therein.

The first inaccuracy I would like to address is on page III-154 under H. Neotropical (Migrant) Birds: Your document contends that Breeding Bird Survey data "on National Forests found an increase of 10 species of neotropical birds and a decrease of 5 species." As coordinator for Idaho's Breeding Bird Survey for over 10 years I can attest that this information is patently incorrect. It is a well-known fact that for nearly thirty years fifty percent of all neotropical migratory bird species have been in decline. Nongame Wildlife Leaflet # 10, "Idaho's Migatory Landbirds," states "although no data are available for almost half of Idaho's 119 neotropical migrants, Breeding Bird Survey data show that nearly a third may be declining."

Birds likely to be affected by the Iron Honey Project include but are not limited to the following neotropical migratory bird species: Townsend's Warbler, Vaux's Swift, Hammond's and Cordilleran Flycatchers, Tree Swallow, Brown Creeper, Veery, Swainson's and Hermit Thrushes, and Solitary Vireo. Half of these species are in decline and the other half suffer a lack of data to determine their status.

The second inaccuracy I would like to address is on page III-157 under B. Bald Eagle and Existing Conditions: Numerous sightings of bald eagles during the breeding season have been recorded by myself and other Audubon members along the North Fork during the breeding season. Single birds have been documented both below Enaville and above Big Hank Meadow on the North Fork. A pair of bald eagles was observed at the confluence of Steamboat Creek and the North Fork during the 2000 and 2001 breeding seasons.

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It seems certain that the pair seen on several occasions at Steamboat Creek have a nest somewhere in the vicinity and fish both up and downstream from the site. It is also likely that the pair nesting near the Mission Flats uses both the South Fork and the North Fork for supplemental food gathering opportunities. Logging activities on the Little North Fork may cause silt to enter the North Fork, inhibiting visual acuity for fishing bald eagles and affecting the success ratio of fish taken.

The third inaccuracy I would like to address occurs on pages III-169-170, D. Black-backed Woodpecker: Your document states that the Iron Honey Resource area is "inherently low in habitat for the black-backed woodpecker because of the lack of lodgepole pine and larch." In order to secure a grant so that Coeur d'Alene Audubon might monitor and document the behavior of black-backed woodpeckers on the Coeur d'Alene River Ranger District following the bark beetle infestation, we received a letter from your district biologist that was approved by the ranger. That document stated that most of the literature available on the black-backed woodpecker focuses on irruptions occurring in beetle-killed Ponderosa pine or after large-scale fires. Because it takes years for an outbreak to reach completion, this cycle has never before been studied in Douglas fir on the National Forest in Northern Idaho. The grant, which paraphrases the biologist's letter, states that "this would be the first information of its kind on the Forest and would help the USFS in the planning of management activities and future projects."

It is true that in Washington and Oregon--and even on the St. Joe in Idaho--black-backed woodpeckers do occur in lodgepole pine forests. On the Coeur d'Alene River Ranger district however, the birds utilize spruce and Douglas fir. David B. Marshall's study documents and supports that black-backed woodpeckers "also range into areas dominated by Douglas fir and hemlocks." Scharpf, Bent, Bell, and Goggans, et al, also support Marshall's findings in four different studies from 1939 to 1987.

I also take issue with the statement that another concern for the woodpecker is the "already low numbers of large-diameter snags within the Iron Honey Resource area as a result of past harvest practices." Goggans found that the black-backed woodpecker "use smaller diameter trees for nesting as a defense against having larger woodpeckers take over their cavities." I assume you were concerned about nesting trees and not foraging trees as the diameter of a tree is not an issue for foraging.

The EIS also states that "323 acres of nesting habitat" occurs within the resource area. Goggans concluded that 478 acres are needed to support a single woodpecker and that over 900 acres are required for a nesting pair. He also concluded that the age composition had to be 59% mature or over-mature trees.

Goggans also touches on the issue of habitat fragmentation. He states "Fragmentation should be minimized to the extent possible, so that the 956 acres are contiguous or at least interconnected." Iron Honey and the surrounding areas are already highly fragmented and the shelter wood plan only makes matters worse. Dan Svingen and I

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documented, in a 1992 study of the woodpeckers on the St. Joe, that "They avoided very young stands and logged areas for both feeding and nesting." Therefore, the sections under "Direct and Indirect Effects and Cumulative Effects/Determination of Effects" become irrelevant because they are based on a fallacious and erroneous interpretation of misrepresentative data.

Black-backed woodpecker populations cannot tolerate or survive the theoretical hypotheses of the "pulse" method of management you propose in the final EIS. These birds and those previously mentioned need help now and may not survive to benefit from hypothetical benefits in the distant future.

The fourth issue I wish to discuss is why the white-headed woodpecker is listed in the EIS but never addressed. Why are they even mentioned in the EIS since they were extirpated from the forest decades ago? The folks who perpetrated and created the current monoculture on our forest through the over-harvesting of white pine, larch and ponderosa pine, abetted by the fire suppression policies of the day, probably did so with the best of intentions. I have no doubt the people responsible for the shelter wood plan have similar good intentions but I find this attempt at unnaturally manipulating the forest toward white pine and larch as misguided as the actions that eliminated these species in the first place!

Finally, I wish to address Page III-160 3.6.4 Sensitive Wildlife Species, A. Goshawk: The EIS states that there is "one known occupied territory" in the analysis area and "two additional territories that could be occupied." Hayward et al. is cited as listing prey species of the northern goshawk as small mammals, songbirds, and waterfowl. While it is true that goshawks will take ducklings, sometimes wading into the water to capture and kill them, they are hardly going to be an important prey item in the Iron Honey area. Squires and Reynolds list the following prey species in "The Birds of North America, No. 298, 1997" as: various species of squirrels; jack rabbits and snowshoe hare; blue and spruce grouse; Stellar's and gray jay; American crow; pileated, black-backed, three-toed, hairy woodpecker, and especially northern flicker; and various passerines. At least three of these prey items are old-growth indicator species that would be directly impacted by your plan for Iron Honey. Increased edge and clear cuts would make the prey base for goshawks available to other, larger raptor species such as the red-tailed hawk and other predators. Stephen Jones states in the BLM's "Report No. 17 The Accipiters. . ." that goshawks require a "stable prey base and should be subjected to conservative human use and that principle habitat features remain stable." Kenward found that "goshawks in logged locales probably suffered from a reduction in quality habitat for hunting and from lower prey density."

Coleman, Crocker, and Bedford (Wildlife Society, 1990) maintain that nest buffers either large or small did not maintain goshawk reproduction. "The recorded occupancy rates were 75-80% lower where timber harvest occurred around buffers and nestling production was 94% lower." They concluded that "nest buffers by themselves are ineffectual," and that "other raptors replace goshawks in most logged territories."

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Because goshawks maintain 3 to 5 nesting sites within a territory identifying one nest site is inadequate for managing a territory. The microclimate of a nesting stand, as well as large trees for nearby perching and plucking, are of vital importance for nesting goshawk.

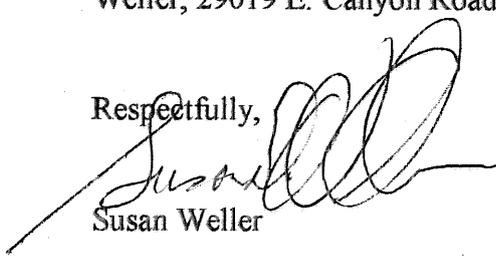
On Page III-149 the EIS states that according to the National Forest Management Act the forest service is to "maintain viable populations of existing and desired species, and to maintain and improve habitat of Management Indicator Species." To be quite blunt, the USFS has no idea if viable populations of any of the species mentioned in this letter, or if viable populations of lynx and wolverine, exist on Iron Honey or on the Coeur d'Alene River Ranger District. The plan for Iron Honey plays Russian Roulette with the future of old-growth species and assumes that these creatures have time to wait for conditions that may or may not be realized in the distant future.

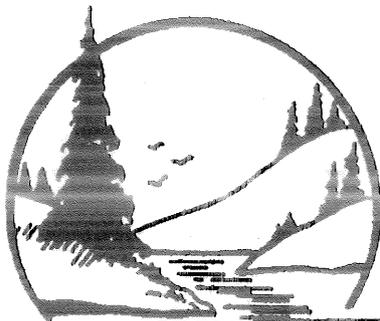
The USFS also assumes in this plan that the areas in question will not be targeted for timber harvest in the future. We all know there are no assurances that these areas will be kept safe from future political administrations and future forest supervisors. On pages II-49-50, the majority of alternative plans indicate that the thinned stands would be "managed for maximum growth and yield, and would be regeneration harvested when they mature." The intentions of the USFS in Iron Honey are not even thinly disguised as attempts to manage and sustain viable populations of wildlife. Alternative 8 flatly states that old growth in the Iron Honey "would be reduced by 4 percent."

Abandon this plan because it is obviously and only an attempt to take more timber out of an already heavily logged area under the guise of science. I had hoped things had changed since Audubon filed its first appeal in 1992 on the Skookum Creek and Barney Rubble's Cabin RA. The Iron Honey EIS has completely dashed those hopes.

In the EIS Audubon is listed as one of the organizations to receive a copy. We did not. In the future, please send all conservation correspondence intended for Audubon to Susan Weller, 29019 E. Canyon Road, Cataldo, ID 83810. Thank you.

Respectfully,


Susan Weller



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DEC 31 2001

COEUR RIVER R.D.

#22

Kootenai Environmental Alliance

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

12/29/01

Joe Stringer, Ranger
Coeur d'Alene River Ranger District
2502 E. Sherman Ave.
Coeur d'Alene, ID 83814

Re: Iron Honey FEIS

Dear Mr. Stringer,

Please accept these comments on the Iron Honey Resource Area Final Environmental Impact Statement (hereafter referred to as the "FEIS") on behalf of the Kootenai Environmental Alliance and The Lands Council and the Idaho Sporting Congress.

WILDLIFE

Many MIS and Sensitive species need habitat associated with old growth forests. These habitat characteristics include large dead trees; large live trees with defect or signs of decadences such as heart rot and decay, large contiguous areas with high canopy closure, and large pieces of down wood on the forest floor. Just as important, mature non-old growth and near old growth forest areas also provide many of these important habitat characteristics used by these species. In short, these species need forest habitat that is largely unaltered by human activities such as clearcutting, salvage logging, prescribed burning, firewood cutting, and road building.

The IPNF's failure to incorporate scientific findings for snag guidelines, to monitor MIS and to meet Forest Service old growth and snag guidelines are violations of the Forest Plan, NFMA, and NEPA.

MIS

The IPNF Forest Plan adopts the pine marten, pileated woodpecker, and northern goshawk as management indicator species (MIS) for old growth, in accordance with NFMA implementing regulations at 36 CFR § 219.19(a)(1). The Forest Plan also adopts several Standards to assure viability of old growth dependent species across the Forest, as directed by NFMA's diversity requirements.

Forest Plan Standard 7a requires the IPNF to "Maintain at least minimum viable populations of management indicator species distributed throughout the Forest" (emphasis added). IPNF Forest Plan old growth Standards 10(c) and 10(f) concern distribution of old growth habitat, addressing both Forest Plan and NFMA regulation requirements that address diversity, defined as "The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan" (36 CFR § 219.3, emphasis added).

The Forest Plan states that monitoring and evaluation will provide the decision-maker and the public with information on the progress and results of implementing the Forest Plan. The importance of old growth and snags for wildlife species is reflected in the Forest Plan's adoption of the pileated woodpecker as a management indicator species (MIS) for old growth and cavity nesting habitat, and the northern goshawk and pine marten as MIS for old growth habitat. Additionally, the Forest Plan recognizes that snags and large pieces of down wood in various stages of decay are essential components of old growth habitat and the FEIS states that snags, and large diameter overstory trees are in short supply (p. III-161). The IPNF will not employ the most current, relevant science and has failed to monitor these MIS and their habitat. The Iron Honey Restoration Project would continue the Forest Service-facilitated degradation of habitat for species depending upon old growth, live and dead trees providing opportunities for cavity nesting, and large pieces of downed wood on or near the forest floor.

The IPNF's Forest Plan was approved on September 17, 1987. In attempting to fulfill NFMA's monitoring and reporting requirements, the Plan required the Forest Service to monitor several items on an ongoing, annual, biannual, or five-year basis and to report on the results of the monitoring at annual, biannual or five-year periods. Thus the Plan embodies NFMA's two monitoring obligations: (1) to conduct monitoring, (2) to evaluate and report to the public the results of that monitoring. The FEIS fails to disclose population trends of its old growth MIS—including pine marten, pileated woodpecker, and the northern goshawk.

Forest Plan Monitoring item F-1 requires the annual monitoring of "Population trends of indicator species" and this monitoring information is to be reported every 5 years. Additionally, "Downward population trends" are the "threshold to initiate further action." The Ecology Center January 25, 2000 letter to the Forest Supervisor identified several monitoring items for which Forest Plan monitoring was not done, or was performed inadequately. Consider this letter from the Ecology Center as part of our FEIS comments. Those include old growth management indicator species. The IPNF, in a letter dated May 20, 1999, stated that no population trend data is available for the pileated woodpecker and the northern goshawk¹. Despite the selection of these two species as forest wide MIS and the Forest Plan's monitoring requirements, the IPNF has, in approximately 12

¹ A copy of this document was supplied to the Appeal Deciding Officer with the appeal of the Douglas-fir Beetle ROD, IPNF, in 1999.

years of implementation of the Forest Plan, failed to monitor population trends, as the Forest Plan requires.

The FEIS has inadvertently mis-numbered pg. II-27-28 regarding mitigation sections 2.6.10 (c) and (d); Mitigation to Reduce Effects to Wildlife. This is important to note since this identifies the mitigation measures to be applied to protect MIS species. For instance the FEIS refers to 2.6.10(c) and (d) in the case of the northern goshawk nesting sites in the Colt Mountain area which is in the vicinity of proposed harvest Unit 6 which, P. III-161. Just east of Unit 6, Alternative 8 map identifies existing old growth area. It is noted that goshawks are sensitive to disturbance, therefore any activity near the vicinity of any nesting site should be eliminated, versus mitigating for the inevitable negative affects. The FEIS also refers to the wildlife mitigation, 2.3.10(c) and (d) for the Canadian lynx. Therefore a Supplemental FEIS needs to be done so the public has the correct wildlife mitigation information.

Cumulative Affects

Mitigation measures call for Unit 6 to be surveyed prior to unit layout p. II 27-28. The FEIS fails to disclose whether that has been done.

The Iron Honey FEIS violates guidelines FSM 2621.3(1) and (3); to define area of sufficient size to allow adequate evaluation of the cumulative effects on MIS and an analysis of all management activities and collective effects on the distribution and abundance of habitat in space and time, on vegetation succession and on natural disturbance regimes. Under Alternative 8, the project area would be divided into at least three subdivisions, with activities occurring in no more than two subdivisions at any time. This would allow the remaining subdivision(s) to provide security for big game and other wildlife species during project implementation (p. II-27). There is no indication where these subdivisions are located and how big in size they are and whether this mitigation technique is scientifically plausible. These subdivisions would be inadequate since the cumulative affects on wildlife outlined on p III-190 discusses the West Gold Creek Timber Sale and the post Douglas-Fir Beetle project activities to be ongoing and coinciding with the Iron Honey project once initiated. This would in turn will "not provide a displacement area" for big game and other large-ranging species (p. III-190) as hoped for in mitigation measures and displacement of big game and wildlife into the Iron Honey area from the Douglas-Fir Beetle project would "further reducing displacement areas for wildlife" (p. III-190).

Which "large-ranging species" is the FEIS referring to? Would they be gray wolf, northern goshawk, pileated woodpecker, lynx, pine marten, fisher, black-backed woodpecker? Also the Douglas-fir-Beetle Project has displaced wildlife from that project area into the Iron Honey, especially those insect dependant species, such as the black-backed woodpecker. Therein the FEIS further fails to take into consideration and analyze cumulative affects of the Savant Sage Timber Sale post-sale, West Gold Creek Timber Sale and post Douglas-Fir Beetle Project activities, violating NEPA regulation 40 CFR § 1508.7.

Additionally, under Chapter III-Wildlife, the FEIS fails to provide an extended cumulative affect area map as was done to the Aquatics section, p. III-9. This would enable the public to view the concurrent cumulative affects of the West Gold Creek Timber Sale (north of project area) and Douglas-Fir Beetle project (west of project area) that lie adjacent to Iron Honey Analysis Area.

Old Growth MIS Pine Marten

Pine marten inhabit late successional coniferous forests, preferring old-growth fir or spruce-fir stands (Koehler and Hornocker 1977, Spencer 1981) and are used by the Idaho Panhandle National Forests as management indicators of these habitats (IPNF Forest Plan 1987). They are present in the Iron Honey Analysis Area. An important component for marten is dead trees including snags, stumps, and down logs. Marten prefer stands with greater than 30 percent canopy closure and are usually within close proximity to cover. Alternative 8 would remove 70% of the canopy, leaving the bare minimum for pine marten needs that would be in jeopardy anyway due to increase exposure to wind. They prefer spruce-sub alpine fir stands with large overstory trees (greater than 19 inches in diameter), and many down logs (more than 20 per acre)(Warren 1989). However the Iron Honey analysis area comprises only 1,950 acres (or only 9%) of sub-alpine fir stands.

It is recommended that suitable habitat for individual pine martens be distributed geographically in a manner that allows for interchange of individuals between habitat patches (Warren, 1990), but the FEIS fails to identify this corridor and fails to take guidelines for Moderate Quality Sub-drainages into account as outlined in the Forest Carnivore HCA/S (Idaho Dept of Fish and Game, 1995). The guideline calls for 60% of the preferred and suitable habitat as late-successional forest be interconnected by travel corridors comprised of closed-canopy forest (i.e. > 40%) and patches should be a minimum of 80 acres with 50% of their perimeter adjacent to forested sites (p. 55). Nowhere in the FEIS is there discussion, analysis or recommendations to that effect.

The Iron Honey Project FEIS violates NFMA regulation 36 CFR § 219.19, which requires habitat to be well distributed across a planning area (national forest) at:

Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. For planning purposes, a viable population shall be regarded as one, which has the estimated numbers, and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area. In order to insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well distributed so that those individuals can interact with others in the planning area.

Implementation of Alternative 8 would result in the "loss of four marten territories" (p. III-180) and fails to disclose how many of the 7,195 acres of pine

marten habitat that is present would be lost. The loss of these territories and breeding pairs will not meet the population viability for the old growth MIS species.

Pine marten depend upon continuous, intact late successional forests that provide canopy cover for traveling corridors, foraging and nesting. However on pg. III-116, the FEIS states that landscapes within the analysis area and most of the Upper Little North Fork of the Coeur d'Alene River contain a heavily roaded, fragmented matrix that provide neither large blocks of mature/old forest or large areas with potentially long lived early seral tree species (IPNF, 1998). Pine marten are very susceptible to trapping; high road densities increase vulnerability. They prefer areas with road densities of less than 1 mile per square mile (Warren, 1989). The Iron Honey Analysis Area however has a road density of 9.2 miles/sq. mile and when compared to the direct affects area, the west side of North Fork of the Coeur d'Alene River, road densities increase to over 12 mi/sq mi. Marten rarely venture greater than 150 feet from forest cover, especially in winter (Warren, 1989).

Tables III-46 and III-47 of the FEIS identifies the total Habitat Suitability Index for the project area for pine marten forage and cover as .37 and .25 respectively, which fails to meet the value of .50 or greater which is considered to have sufficient habitat to support a marten. What is the foreseeable Post Sale HSI for pine marten cover and forage?. Similarly, only the post-sale HSI is shown in Table III-48, but not HIS for forage and cover. Wouldn't one think if you can produce forage and cover HSI, one can produce the post-sale HSI, and vice versa? What is the HSI for black-backed woodpecker?

Throughout the FEIS, the Forest Service claims that post sale old growth recruitment would occur within the next 50 to 100 years, and therefore would trend toward optimal marten habitat. But according to Thompson and Harestad's review and research on the effects of logging on martens and a proposed model of stand development and carrying capacity, late successional forest recruitment is still not beneficial to the marten (Thompson and Harestad 1994). Adverse effects of logging, through the loss of habitat, are categorized as either short-term or long-term. Over the short-term, studies we reviewed show that martens avoid recent clearcuts. Over the longer term, forests may become too fragmented on the landscape scale to provide suitable habitat, and if logged mixed-wood forests regenerate to deciduous forests, they provide insufficient prey and unsuitable habitat during winter.

Pileated Woodpecker

Based on the HIS values the implementation of Alternative 8 would likely result in the loss of 200 acres of habitat and a reduction of 3 breeding pairs of pileated woodpecker (p. II-183). "snags that provide forage and nesting habitat across the landscape (for pileated woodpecker) within the Iron Honey Resource Area would also be reduced: (FEIS p. III-193 & 184). This is a huge problem since pileated woodpeckers depend on stands with high snag densities (greater than 12 per acre) (Warren, 1989).

Furthermore, in response to public comment 7(m) regarding the removal of important components such as snags and dead trees from the pileated woodpecker's habitat, the data collected for HSI for MIS was via the timber stand database (TSMRS) in order to query the estimated dead wood component. However, that is not the case as stated on p. III-153, which says that TSMRS does not provide accurate samplings on standing and downed dead tree component and on p. III-170 admits that "information on snags is not found in the database", regarding black-backed woodpecker habitat in the analysis area. Therefore HSI values generated by TSMRS are inadequate.

Sensitive Wildlife Species

Fisher

Alternative 8 fails, and therefore would *not* maintain close, to the optimal 40% in late successional stage forest, as called for in the Forest Carnivores in Idaho Habitat Conservation Assessment and Conservation Strategies (1995). Late successional forest is the preferred and suitable type for fisher. According to project files, 6,310 acres should be maintained as late successional forest to support fisher, but only 5,795 acres, or 37%, was identified. This leaves an immediate 515-acre shortage for the fisher. Alternative 5, which was noted as the most detrimental alternative to the fisher, would result in the most late successional forest acreage lost; 1,335 acres. In fact Alternative 5 had the lowest fisher habitat ranking and would reduce the most late successional stage habitat (considered a trigger of significance; and "would therefore impact individuals or habitat with a consequence that the action may contribute to a trend towards Federal listing or cause a loss of viability to the population or species" (p. II-42). Even though Alternative 5 would loss twice as much, there is little late successional forest to begin with, 6,310 acres which is 30% of the entire Iron Honey Analysis Area, therefore Alternative 8 should have the same conclusion; "would therefore impact individuals or habitat with a consequence that the action may contribute to a trend towards Federal listing or cause a loss of viability to the population or species".

Northern Goshawk

Within the Iron Honey Project area, there is one known occupied territory and potentially two additional territories that could be occupied. The nesting site is in and around Colt Mountain area, which is in the vicinity of proposed harvest Unit 6. Just east of Unit 6, Alternative 8 map identifies existing old growth area. It is noted that goshawks are sensitive to disturbance, therefore any activity near the vicinity of any nesting site should be eliminated, versus mitigating for the inevitable negative affects.

Black-backed Woodpecker

A field survey needs to be done for the black-backed woodpecker to evaluate its distribution the Iron Honey Project area since its "distribution in Idaho is unknown" (p. III-169). The FEIS infers that the species may inhabit the area

because the potential habitat exists in old growth stands and similar habitat in Washington is occupied.

Threatened Species

Canadian Lynx

Regarding lynx travel corridors in the Iron Honey Project, Alternative 8 would create large openings that would result in travel corridor fragmentation and inhibit lynx's ability to travel since lynx avoid large open areas. The FEIS lowers the bar on the regeneration of these large openings to 15-50 years (pIII-159) before lynx being to reutilize the disturbed area, while it admits on the same page that lynx would "not move across the area until the harvest units are 30 years or more in age." So on what basis are you generating your decisions? Furthermore, lynx's main prey populations, the snowshoe hare, are already low from previous pre-commercial thinning over the last 10-20 years. Any further pre-commercial thinning as proposed by Alternative 8 would more than likely result in a further decline of the lynx's prey base.

As stated in the FEIS responses to comments, the effect analysis and determination of effects in the biological assessment specific to this project will require concurrence from the U.S. Fish and Wildlife Service. We expect that will be documented in the ROD.

Gray Wolf

The most recent wolf signs documented was just outside the Iron Honey Project Area in 1981. Iron Honey is within the Elk Habitat Units 2 and 10, which is used by elk and deer during spring, summer and fall months. Elk and deer are the wolf's prey base that would be greatly affected by the Iron Honey Project, by being displaced into other areas, including the area they were displaced from originally, such as the Douglas-fir Beetle Project area and West Gold Creek Timber Sale area. The only secure place for big game would be Tom Lavin Creek and maybe Independence Creek (FEIS p. III-156).

Big Game MIS-Elk

Current elk habitat potential for Elk Habitat Unit (EHU) 2 is 63%, which is below the Forest Plan goal of 65% (Forest Plan Appendix B, Summer Range Elk Management Plan) and after the completion of Alternative 8, elk habitat potential would decline to 57% in EHU 2 (p. II-44), failing to achieve the Forest Plan goal of 65%.

Failure to Monitor MIS

The IPNF's failure to incorporate scientific findings for snag guidelines, to monitor MIS and to meet Forest Service old growth and snag guidelines are violations of the Forest Plan, NFMA, and NEPA.

Without having monitored the population trends of indicator and sensitive species, the IPNF cannot know the impacts of Forest Plan implementation on

these species. It cannot know whether its the Forest Plan's old growth retention standards or snag and cavity nesting retention guidelines are adequate for the persistence of old growth dependent and cavity nesting species in the face of large-scale logging and road building projects. It cannot know whether it has maintained viable populations as NFMA at 36 CFR § 219.19(a) requires the Forest Plans do: ("establish objectives for the maintenance and improvement of habitat for management indicator species"). The regulations also require under 36 CFR § 219.27 (a)(6) that the Forest Service to "Provide for adequate fish and wildlife habitat to maintain viable populations of existing native vertebrate species and provide that habitat for species chosen under § 219.19 is maintained and improved to the degree consistent with multiple-use objectives established in the plan."

For the MIS northern goshawk, which is also on the Sensitive species list: "Historic numbers of goshawks were likely higher than they are today, because many of the species they prey upon were likely more numerous. This is because the habitat of their primary prey species was more plentiful than today." (Id. at III-255.).

Snag Retention Does Not Meet Forest Plan

Researchers have noted for many years that snag-retention levels were inadequate in many "managed" Forests, and that more and larger snags would need to be left in order to provide adequate habitat for both primary and secondary cavity nesters (Bull 1997, Balda 1975, Evans 1995, Torgerson and Bull 1995). Research in recent years has also shown how burned forests with high levels of snags provide particularly important habitat for several species of woodpeckers that opportunistically colonize these areas. The FEIS acknowledges that lack of snags and snag retention, "already low numbers of large-diameter snags within the Iron Honey Resource Area as a result of past harvest practices" (FEIS p III-170), "because of overall low snag densities...: (FEIS p. III-193), and "snags that provide forage and nesting habitat across the landscape (for pileated woodpecker) within the Iron Honey Resource Area would also be reused: (FEIS p. III-193 & 184). The logging of over 1,900 acres and removal of 70% of the canopy cover will exacerbates the current conditions.

ICBEMP

The FEIS refers to the Iron Honey analysis being "tiered" to several documents, Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin, Toward an Ecosystem Approach: An Assessment of the CDA River Basin, IPNF Forest Plan, Available Conservation Assessments and Strategies for Wildlife Species, Douglas-fir Beetle Project Final EIS, and additional scientific literature as appropriate, but fails to identify what components and information is being used and how to analyze issues and concerns. These documents do not replace discussions needed for a site-specific NEPA analysis.

While the Iron Honey FEIS, the Iron Honey power point presentation, and District Ranger Joe Stringer continuously refers to ICEMP (Interior Columbia Basin Ecosystem Management Project) to justify Alternative 8 actions, they fail to disclose protection needed for northern Goshawk fledgling areas as outlined in the East Side Screens and ICBEMP.

The FEIS fails to adopt ICBEMP's recommendations for goshawk, which is said to be the most up to date science, but fails to identify, discuss, protect or even analyze fledgling areas. NEPA (Sec 1500.1 (b)) requires that up to date science be used for implementation of a federal project, then Iron Honey FEIS fails to do that. For example throughout the FEIS, and December 13, 2001 KP BX segment on Iron Honey by Steve Jackson, Joe Stringer, District Ranger for the Coeur d'Alene Ranger District, describes the creation and implementation of the Preferred Alternative 8 as being based on ICBEMP, and acknowledges that the project area is within a High Restoration Priorities Sub basin (USFS power point presentation, Nov 8, 2001). However, the FEIS fails to identify, discuss and analyze how the Iron Honey Project will meet the standards outlined in the Interior Columbia Basin FEIS's proposed Decision, such as the Objectives, Standards, Guidelines for A2 Subwatersheds, A2-01 thru A2-S4. East Side Screens should be adopted by IPNF on the Iron Honey project since similar habitat types in eastern WA and Eastern OR apply to goshawk and cavity nester populations in northern Idaho.

OLD GROWTH

The FEIS does not disclose if the IPNF is meeting Forest Plan old growth standard 10(b), which requires the FS to "Maintain at least 10 percent of the forested portion of the IPNF as old growth." As the Court in Cuddy Mountain stated: "Pursuant to NFMA, the Forest Service must demonstrate that a site-specific project would be consistent with the land resource management plan of the entire forest." The Iron Honey Restoration FEIS fails to meet the legal standard established by Cuddy Mountain.

Moreover, the IPNF's position on this issue contradicts previous statements by the Forest Service itself, which recognizes that forest wide habitat issues relate to species viability. In their response to comments on the Dry Fork Vegetation and Recreation Restoration Project Environmental Assessment, Lewis & Clark National Forest, 2000, the Forest Service acknowledges that viability is not merely a project area consideration, that the scale of analysis must be broader:

Population viability analysis is not plausible or logical at the project level such as the scale of the Dry Fork Vegetation and Recreation Restoration EA. Distributions of common wildlife species as well as species at risk encompass much larger areas than typical project areas and in most cases larger than National Forest boundaries. (Dry Fork EA Appendix D at p. 9.)

This is relevant in the case of the Iron Honey Restoration Project because, if the IPNF cannot demonstrate it has met its forest wide 10% old growth Standard,

every forest stand in the project area that has any habitat value whatsoever for old growth species is needed for maintaining viable populations of old growth species, until the IPNF can prove otherwise. We point out that the Iron Honey EIS still has not demonstrated compliance with old growth Standard 10(b), which means under the Cuddy Mountain tests the FEIS is inadequate. If we assume it's true that "Historically, old growth was found on approximately 10-25% of the landscape" (p. III-189) then how can the IPNF assume that compliance with Forest Plan old growth standards, if indeed it does comply, will maintain the distribution of dependent species as NFMA requires?

We have previously demonstrated that the IPNF's forest wide old growth inventory is flawed (Refer to and include as part of FEIS comments, Attachment 1 of the appeal of the East Slate ROD submitted by the Ecology Center, Alliance for the Wild Rockies, and the Lands Council, which is a Declaration submitted in the Lands Council v. Vaught federal court action against the IPNF and the Colville National Forest). Thus any decision based upon an assumption that the IPNF is meeting old growth standard 10(b) is arbitrary and capricious.

In order to assure that the kind of "treatments" prescribed for the old growth in the Iron Honey Project area will still result in old growth, it is necessary to be instructed by results from past efforts. We note that there is no reference in the FEIS to any long-term, peer-reviewed scientific study that indicates one can successfully replace natural processes with management-imposed changes so the old growth like that proposed to be "treated" can be maintained over time. That is because the interrelationships between the soils, the microorganisms in the soil, the moisture and dead wood in the soil, large standing and down pieces of wood, and the countless other plants and animals associated with old growth are far too complex to be replicate in any experiment. The relevance of these failures to the Myrtle-Cascade Project is obvious: the IPNF has approved of more logging and road building activities that would remove important habitat components for the survival of these MIS species.

FEIS Document Errors

The FEIS is not user-friendly and littered with reference errors, map legend errors, and pages not being in numerical order (as indicated above with p. II 27-28), thereby violating NEPA 40 CFR 1502.24:

The Forest Service cannot make a reasoned decision as to the environmental impacts of a proposed action where information contained in an EIS is incomplete or inaccurate", Methow Valley Citizens Council v Regional Forester 833 F.2nd, 810,815, (9th Cir. 1987).

Throughout Section II, the FEIS wrongly refers to Tables in Section III. For example, the graphs, starting on p. II-44, provide information on elk habitat potential, security in the various compartments and EHU, are referenced to Tables III-45 and III-46. However, Table III-46 is "Habitat suitability index values for pine marten cover in the Iron Honey Resources Area." The correct

reference would be to Tables III-44 and III-45. Similarly, under Management Indicator Species for Old-growth in Section II, p. 47, Figure II-32 is referenced to information found in Tables III-47 and Tables III-48 for Habitat suitability values for marten cover habitat and habitat suitability values for marten forage habitat, respectively. However, Table III-47 Habitat suitability values for marten forage habitat and Table III-48 is Habitat suitability values for the Pileated Woodpecker (post sale). This repetitive discrepancy is repeated throughout the document. Also, Figure III-18, the legend does not clearly identify the boundary line for Iron Honey Analysis Area in the legend (p. III-175). Only by referring to several other maps, can one identify the correct Analysis Area and its relationship to EHUs). As a result, a Supplemental FEIS needs to be done in order to correct these errors that would allow for proper public review and participation.

Furthermore, there appears to be a major discrepancy found between the EIS and the FEIS in regards to old growth. In the DEIS on pages 34 and 35 there is a discussion of logging in stands that are 150 years or older, in relation to MIS pine marten and pileated woodpecker. Table II-9 at the top of page 35 shows 286 acres would be logged with alt's 2, 5, or 7. The FEIS on page II-47 has a discussion of MIS for old growth but the Table II-32 doesn't address the number of acres > 150 years that would be logged with Alt 8, even though they do mention logging in stands that are over 150 years old.

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WATER QUALITY/QUANTITY/FISH

Ever since the passage and implementation of the National Environmental Policy Act (NEPA) in 1969, the Idaho Panhandle National Forests (IPNF) claimed that every one of its timber sales in the North Fork of the Coeur d'Alene (NFCdA) drainage would have no significant cumulative effect on the environment. Yet since that time, most of the streams in that drainage are so burdened with

sediment that they are classified as Functioning at Risk (FAR) or Not Properly Functioning (NPF). The situation is so dire that the NFCdA and the Little NF CdA River system are classified under the Clean Water Act as a Water Quality Limited Segment, 303(d).

The logging and road construction activities in the Iron Honey Restoration Project is concentrated in the headwaters of the east side of the Little North Fork Coeur d'Alene River, a tributary to the main stem of the North Fork CdA River. According to the IPNF Forest Hydrologist, Rick Patten the stream "has been hammered," "It's been killed."

The killer is the excessive logging and road construction carried on in this drainage by the timber industry at the behest of the U.S. Forest Service (FS). Now the FS wants to "improve" the conditions by more logging and 4.2 miles of new road construction and 30 miles of reconstruction. The size of the regeneration logging units is unprecedented—most are in the range of 100 acres to over 300 acres. The FEIS does not adequately show that this logging and road construction will actually improve the existing situation—the most likely scenario is that it will worsen the terrestrial and aquatic conditions and place the native fish populations in further jeopardy.

This excessive logging and road construction in the NF CdA and Little NF CdA rivers that has caused the problem has been made worse by the deliberate lack of road maintenance by the Forest Service (FS). The FEIS acknowledges that the majority of the channel crossings that have failed in the project area were located on unmaintained or irregularly maintained roads. This lack of road maintenance violates the Idaho Forest Practices Act.

The supposed problem with the vegetative component, caused by FS logging, is not an emergency situation. The priority is the degraded stream system. The areas proposed to be cut are currently providing some moderating effect on an already excessive peak flow problem, providing habitat for wildlife, and contributing critical ecosystem functions.

Alternative 6 provides the only reasonable option that appears not to worsen the existing problems with the terrestrial and aquatic ecosystems. The proposed alternative, Alternative 8 (Alt 8), calls for large clearcut type logging that would, by the admission in the FEIS, exacerbate the already excessive peak flows that is a major contributor to the existing sediment problem. In fact, it is proposing to create through logging, the largest clearcut-type openings of any timber sale in recent history

Press vs. Pulse

The FEIS does not provide a sufficient justification for the extensive clearcut-type logging in the headwaters of the Little NF. One stated intent for the extensive clearcut-like logging proposed in Alt 8 is that it will mimic a "pulse" disturbance. We contend that Alt 8 is just another in a series of "press" disturbances in the Little NF. The major pulse disturbances in this watershed are large stand

replacing fires. According to the FEIS these fires occur at a frequency about once every 200-250 years. The FEIS states that it intends, but will not commit, to stay out of the drainage for about 30-40 years. That in itself does not mimic a pulse disturbance in the project area. Logging and road construction also do not mimic a natural pulse disturbance such as fire. There is no justification for any further logging and road construction in the Little North Fork of the Coeur d'Alene River drainage given the history of abusive logging and road construction that has occurred within the last 50 years.

The implementation of Alt 8 will contribute additional sediment to the affected streams and thus will violate the Clean Water Act. The estimated increase in peak flows from already high flow levels will place previously logged riparian zones and the remaining encroaching streamside roads at increased risk for additional erosion. It will also perpetuate erosion of streambanks not confined by roads during periods of high flows due to the already severely aggraded nature of the affected streams.

Water Quality/Quantity/Fish

The FEIS does not provide sufficient information to conclude that Alt 8 complies with the Clean Water Act and will result in a net benefit to the affected streams and the westslope cutthroat fishery.

WATSED

The FEIS fails to acknowledge in the **Model Limitation** section, Appendix D-2, the fact that WATSED does not estimate sediment production from in-channel and stream bank erosion even though the FEIS at pg. D-13 states that these are among the major contributors to sediment production. These contributors to bedload sediment production are not included in the tables that measure **Projected watershed response**, nor are these sediment contributors listed in the WATSED results figures III-54 through III-56.

The FEIS acknowledges that "Road segments adjacent to streams are very susceptible to failure due to frequent high water." FEIS pg. III-21. The FEIS proposes to obliterate a minority of the streamside roads in the project and cumulative effects area. Those that remain are at great risk to contribute sediment to the stream during high flows, especially since these already high flows will be increased by the implementation of Alt 8.

The FEIS fails to disclose the amount of bedload aggradation that could occur in the affected streams from eroding stream banks, channel scour and road construction/reconstruction. We did not find any measurements that document the trend of sediment accumulation in any of the affected streams.

The majority of sediment production that WATSED estimates comes from road construction, and after three years the model estimates the amount of sediment produced from road construction and reconstruction is reduced to slightly higher than pre-construction levels. The FEIS relies heavily on this model for its cumulative effects analysis. The model's inability to estimate sediment produced

from in-stream, streambank, rain on snow, road and culvert failures makes it a poor choice to estimate the amount of sediment produced. Without a credible estimate of in-channel and streambank erosion and rate of aggradation the FEIS has no basis for its claim of a long-term benefit to the affected streams.

Several years ago, exact date unknown, the IPNF measured the accumulated sediment in the North Fork CdA River by Pritchard Creek and found that the bed of the river had accumulated so much bedload sediment that it was two feet higher than when the river was measured 30 years prior. The bedload sediment accumulation in the Little NF is so severe that in at least one section the River flows under the sediment. The sediment produced from the implementation of Alt 8 will most likely accumulate in the affected streams and continue to reduce fish habitat.

The FEIS estimates the amount of net associated risk (sediment) that will be reduced as a result of pulling culverts. It does not estimate the amount of sediment that could be produced from the remaining culverts in the cumulative effects area. The FEIS bases the reduction of sediment on the assumption that the culverts proposed for removal will fail, therefore, the same assumption must be made for the remaining culverts.

The FEIS does not adequately disclose the significance of the WATSED numbers. The FEIS states that the percentages of sediment increase as estimated by WATSED from the implementation of Alt 8 will not be measurable or detectable in the evaluated stream reaches. The FEIS compares the change in the percentage of peak flow increases to the existing condition. The existing condition is already negatively affecting the aquatic ecosystem therefore it is inappropriate to use it as a baseline.

The FEIS states that the sediment increases for the affected drainages resulting from the implementation of Alt 8 would not be measurable because it is well within the normal range of variability. The streams in the cumulative effects area are not in a normal, natural state. Therefore, they would react differently to any increase in sediment, whether or not the FS has the ability to measure the changes.

Riparian areas that have been previously logged are particularly susceptible to sediment production due to increased peak flows. The FEIS acknowledges that high water yields will place these areas at increased risk for streambank erosion. There are many logged riparian zones in the cumulative effects area.

Equivalent Clearcut Areas

The FEIS does not disclose the criteria for a when an area is no longer considered an ECA.

HEADWATER LOGGING

Alternative 8 concentrates all of the logging and road construction in the headwaters of the Little NF and in the headwaters of some of its tributaries. Headwater streams provide important fish spawning habitat and are very sensitive to increases in peak flows. This is acknowledged in the 1993 IPNF *Guidelines for Watershed and Stream Channel Evaluations and Project Implementation*. This document emphasizes the need to limit headwater logging in all drainages, especially in drainages with streams in condition yellow (FAR) or condition red (NPF). Peak flows will increase in all the affected drainages and thus the risk for damage is also greatly increased.

Rain on Snow (ROS)

The drainages where most of the logging is concentrated are at high risk (very sensitive) for rain on snow events. In spite of this, Alt 8 concentrates extremely large clearcut-like group shelterwood cuts in these drainages. Iron and Solitaire Creek, where much of the logging is proposed, have rain on snow sensitivity ratings of 80 and 83 respectively.

Rain on snow events in these large cuts could greatly increase the peak flows, increase the risk of further destabilization of the affected stream channels and increase bedload transport and production. The more heavily logged and roaded a drainage, the greater the impact from ROS events. The damage to fish habitat resulting from these events could result in an even further decline of an already imperiled westslope cutthroat fishery.

The FEIS also fails to disclose the additional proclivity towards damaging rain on snow events based on critical determining factors such as site-specific size, aspect, and slope of the regeneration cuts. These openings could be susceptible to damaging ROS events for much longer than is acknowledged in the FEIS.

The FEIS at pg. III-48 states that,

In the event of a large precipitation event within 7 to 10 years of the harvest, stream adjustments involving both deposition and scour could occur in low-gradient reaches. These would be indirect effects from higher flows, higher stream velocities and channel erosion in headwater channels.

We believe that these streams will be at risk for longer periods of time than 7 to 10 years after logging. Reforestation usually does not usually occur until three to five years after logging. The seedlings will not have the ability to moderate water yields 7 to 10 years after logging.

There is a high probability that large precipitation events will create a significant cumulative impact. The implementation of Alt 8 would result in created openings of 2,254 acres in the project area (FEIS Figure II-33 at pg. II-50). WATSED estimates do not factor the peak flows and sediment produced by rain on snow events. We could not locate in the FEIS any monitoring data that documents the amount of sediment produced by large rain on snow events.

The huge increase in clearcut-type shelterwood logging will increase peak flows during the period of spring snowmelt and will result in even greater peak flows during rain on snow events. The relationship of stream flow between heavily logged Big Elk Creek drainage and lightly logged or recovered Halsey Creek drainage is clearly shown in the graph derived from monitoring during 1989 and 1990 that accompanied, *A Procedure for Evaluating Risk of Increasing Peak Flows from Rain on Snow Events by Creating Openings in the Forest Canopy*, Gary Kappesser, USFS Idaho Panhandle National Forests, March, 1991.

In the same document, Kappesser formulated a rain on snow risk model. It displayed risk for damaging rain on snow events relative to the amount of canopy removal, slope and aspect in rain on snow zones. These factors are not disclosed in the FEIS.

Short and Long term effects

The FEIS does not adequately define the terms short and long-term. The long-term viability of westslope cutthroat trout is questionable under existing conditions. Further habitat degradation that could result from the acknowledged addition of sediment could result in the loss of viability of this species. The "short term" damage from Alt 8 might result in a cumulative effect that would preclude any "long term" viability for the westslope cutthroat trout.

Flooding flushing toxic metals into Lake Coeur d'Alene

It is our contention that the increase of ECAs from the implementation of Alt 8 will increase the risk of flooding and increase the risk of toxic contamination to Lake CdA and the Spokane River. The FEIS acknowledges that there will be an increase in water yields and peak flows over their already high levels in all of the drainages proposed to be logged. The existing levels are significantly higher than under natural conditions and currently contribute to the excessive flooding of the CdA River Basin.

The FEIS acknowledges the aggradation of bedload sediment in the Little NF and the NF CdA Rivers. As a result of this aggradation the rivers have become wider and shallower, therefore they become more susceptible to flooding. The increase in peak flows combined with the existing and additional aggradation anticipated from the implementation of Alt 8, will increase the risk of flooding.

In the flood of February 1996, there were higher stage levels with about ½ the flow than occurred in the flood of 1974. In other words ½ the amount of water in 1996 caused twice the flooding than in 1974. Paul Woods of the U.S. Geological Survey stated that, "You could have lower flow, but higher stage because the river can't handle it." *Spokesman-Review* 2/15/96.

The February 10th, 1996 flood flushed more than one million pounds of lead down the CdA River in Lake CdA according to the U.S. Geological Service (*Spokesman-Review*, 6/13/96). Mike Beckwith, a U.S.G.S. scientist said, "that

the flood could transport the same amount of material that normally would take years to wash downstream.” Id.

The following are quotes taken from the Environmental Protection Agency Coeur d’Alene Basin Final Remedial Investigation/Feasibility Study. These excerpts are used to demonstrate the linkage between flooding and the flushing of contaminated sediments into Lake CdA and the Spokane River.

Recontamination—Periodic flooding can recontaminate previously remediated areas where storm, snowmelt, or flood waters have caused erosion and subsequent redeposition of contaminated sediments. This is a particular concern for community recontamination in smaller basin communities. Many of these communities do not have surface water control systems (e.g., curbs, gutters, and ditches) that effectively control runoff during snowmelt and storm events. For residents living in or near flood plains, uncontrolled surface water runoff, especially during flood events, has a high likelihood of recontaminating properties where remediation has previously been conducted. U.S. Environmental Protection Agency Coeur d’Alene Basin Proposed Plan. Final Feasibility Study Report: Overview Part 1. Overview. Coeur d’Alene RI/FS. EPA Region 10. October 2001 at pg. ix

Remobilization of sediment in the streambed and streambanks of the lower basin is a substantial source of total lead loading. The expected value of total lead loading from the lower basin is 1,010 pounds per day, or about 67 percent of the total lead loading in the river at Harrison. U.S. EPA. Coeur d’Alene Basin Proposed Plan. Final Feasibility Study Report: Human Health Alternatives. Part 2. EPA Region 10. October 2001

Contaminated sediments transported in the Coeur d’Alene River Basin are derived from bank erosion, channel migration, bed material remobilization, and sediments from waste deposits adjacent to stream channels. Sediment is generally incorporated and transported as suspended load (smaller particles that travel in the flowing water) or bedload (larger particles that travel along the bottom of the channel) during the high-flow stream discharges during spring and summer snowmelt. The quantity of the sediment transported typically increases as stream discharge increases, as does the particle size moved. Id. at pg. 2-16.

Little sediment is transported through Coeur d’Alene Lake except during flood events. Most of the sediment entering the lake is deposited as deltas at the mouth of each tributary. Most of the fine material carried in by the Coeur d’Alene River is deposited in the lake before the water discharges into the Spokane River. Id. at pg. 2-17.

The FEIS does not demonstrate that the road and stream remediation efforts will offset the increased risk of flooding that could result from the implementation of Alt 8.

There is a history of concerns about using logging to generate funds to do watershed restoration. There have been comments sent to the IPNF by the Idaho Department of Fish and Game (IDFG), by Pete Bengeyfield, current Forest Hydrologist of the Beaverhead National Forest and by Allen Isaacson, former Forest Hydrologist for the IPNF. They essentially state that carrying on regeneration logging to fund restoration in the North Fork and Little NF CdA Rivers is counterproductive. These comments should be on file in the IPNF as they have been included in appeal documents and lawsuits filed against IPNF timber sales since 1990.

Cumulative effects

The FEIS does not adequately consider the cumulative watershed effects for the following reasons.

- It does not adequately assess or evaluate the rain on snow impacts of proposed logging in combination of past, ongoing and future timber sales.
- It does not adequately disclose the cumulative effect of in-channel and streambank erosion.
- It does not adequately disclose or discuss the cumulative aggradation of sediment in the affected streams.
- It wrongly interprets the significance of WATSED outputs in terms of change from the existing degraded condition.
- It does not clearly define the terms "short" and "long term" nor does it fully consider the supposed short-term effects on the aquatic biota.
- It does not do sufficient and specific evaluations of the impacts of previous, ongoing and proposed timber sales within the cumulative effects area.
- It does not acknowledge the relationship between bedload aggradation and the increase in stream temperatures.

Fry Emergence Forest Plan Standard

The FEIS is in violation of the IPNF Forest Plan because it does not apply the Fry Emergence Success standard. This standard is still in effect until it is amended. We do not agree with the FEIS when it states that the adoption of INFISH replaces that standard. The FEIS has not provided any monitoring evidence, as required by the IPNF Forest Plan, demonstrating that INFISH sufficiently protects fish spawning habitat and fry emergence.

This issue was thoroughly addressed in the Douglas-fir Beetle Project lawsuit filed against the IPNF and do not feel it is necessary to repeat our contentions in these comments. We wish to incorporate those arguments in these comments.

Monitoring

The FEIS does not provide sufficient monitoring information to support the conclusions that Alt 8 will result in a benefit to the affected streams and the

native fish populations. The IPNF has violated its Forest Plan (FP) aquatic and fish monitoring standards and requirements since the inception of the Forest Plan. The IPNF has not complied with the FP monitoring requirements for Best Management Practices, WATSED, and the Fry Emergence standard.

The FEIS does not provide quantitative monitoring data regarding the removal of culverts, i.e. how much sediment is produced by the removal process and how much unintended damage was done. There is no monitoring data on the effectiveness of and level 1 and level 2 obliteration of roads, especially level 1 obliteration in regards to moderating flow and sediment delivery. There is no quantitative, numerical monitoring disclosed regarding bedload sediment production and accumulation.

The one-year of WATSED validation is not sufficient. We do not understand how the WATSED could overestimate the amount of sediment since it does not account for in-channel and streambank erosion. It is not a good indicator of sediment reaching the stream because it does not account for what the FEIS calls the major sediment contributors.

WATSED monitoring is not sufficient to determine site-specific flow and sediment in the smaller drainages where the activities are located. Monitoring larger order streams can mask the true upstream impacts due to the dilution factor.

Inland Native Fish Strategy (INFS)

The FEIS Alt 8 proposes to build roads within Riparian Habitat Conservation Areas (RHCA). This violates INFIS because the FEIS does not demonstrate how these activities will maintain and improve the attainment of the Riparian Management Objectives. Headwater streams and ephemeral and intermittent channels are extremely sensitive to logging activities, especially where large regeneration cuts are proposed as in Alt 8. These cuts will increase peak flows that could scour and/or cause headcuts on these streams.

The FEIS does not disclose how building roads in RHCA is consistent with the Riparian Management Objectives, nor did we find in the FEIS a description of the Riparian Management Objectives for the areas to be roaded.

Forest Plan Violations

For the reasons stated above we believe the FEIS does not adequately demonstrate compliance with the following Forest Plan Water and Fish Standards:

1: "Management activities on Forest lands will not significantly impair the long-term productivity of the water resource and ensure that state water quality standards will be met or exceeded." FEIS at pg. III-78

2: "Maintain concentrations of total sediment or chemical constituents with State standards." Id.

6: "Activities within non-fishery drainages, including first and second order streams, will be planned and executed to maintain existing biota. Maintenance of existing biota will be defined as maintaining the physical integrity of these streams." FEIS pg. III-79.

Clean Water Act (CWA)

The FEIS Alt 8 violates the CWA because it will introduce additional sediment into the Little NF and its tributaries and thus will degrade its aquatic biota. The comments stated above support this contention.

Thank you for providing the opportunity to comment.

Sincerely,

Barry Rosenberg

Barry Rosenberg, Executive Director
Kootenai Environmental Alliance
and for The Lands Council and Idaho Sporting Congress

(208) 667-9093

#23

December 20, 2001

U.S. Forest Service
5815 Schreiber Way
Coeur d'Alene, ID 83815-8363

RECEIVED
DEC 21 2001
SO: MAIL ROOM. IPNF

Re: Iron Honey

To whom it may concern:

It would be impossible for any reader of this letter to realize how much the Little North Fork means to the writer.

Over sixty years ago, a neighbor man made me "his son" and fulfilled my dream. He took me fishing. That man's final resting place is, to me, the most sacred place on the face of the earth, the Little North Fork.

Fifty years ago, on opening day, the cars were almost bumper to bumper. Almost everybody took home a limit, but a 12" cutthroat was a large fish. As the years went by fly fishing and catch and release became the rules. While the fish were somewhat fewer, they were much larger. I could drive up in the afternoon and catch and release several 16-18" cutthroat. Then, about twenty years ago, almost over night the cutthroat were gone, the result of huge clearcuts. Now, those who allegedly represent the public's best interests are suggesting that we replicate this disaster.

It's long past time for those who supervise our forests to become true stewards, to take up their pulaskis and start doing the job right.



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