



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 301 S. PARK, DRAWER 10096
HELENA, MONTANA 59626-0096

Ref: 8MO

March 19, 1999

Mr. Michael L. Balboni, Acting Forest Supervisor
Kootenai National Forest
506 US Highway 2 West
Libby, Montana 599232

Re: Pinkham Timber Sales and Associated Activities
Project Draft EIS

Dear Mr. Balboni:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Environmental Protection Agency, Region VIII, Montana Office (EPA) reviewed the above-referenced Draft Environmental Impact Statement (DEIS).

The EPA recognizes that resource trade-offs are involved in land management decisions, however, we are concerned about potential the adverse environmental impacts associated with the proposed action (i.e., large peak flow increases in some streams, large forest openings from regeneration harvests, open road density exceeding forest standards, etc.). We suggest that it may be possible to reduce these adverse effects and better optimize the ability of the preferred alternative to address both project purpose and need (i.e., reducing wildfire risk, improving forest health, and providing timber to the local economy) and the significant issues (forest health, wildlife habitat and security, air and water quality, scenic quality, etc.), by constructing a modified preferred alternative.

We recommend that the Forest Service further evaluate the individual treatment methods/units and consider constructing a modified preferred alternative by picking and choosing treatment units and road management from among the present action alternatives. Inclusion or discussion of such additional alternative evaluation in the FEIS would also better explain to the public the trade-offs involved in making land management decisions, and may lead to improved public acceptance of decisions. Desirable features we consider worthy of including in a modified preferred alternative include:

└ Meet or exceed forest standards for open road density and restrict motorized vehicle access adequately to protect wildlife and wildlife habitat and watersheds while allowing reasonable public access. Given the heavily roaded nature of the project area, and the need for numerous road closures/obliteration, to meet Forest Plan Standards, the EPA recommends particular scrutiny of all units necessitating road construction. New road construction should be minimized, and road obliteration and reconstruction is encouraged to reduce road caused watershed problems and road related wildlife security/habitat impacts. Consideration should also be given to converting proposed new permanent roads to temporary roads which are obliterated following project use;

└ Treat as many acres as possible to restore desired forest health conditions and reduce fuel loadings in high fire risk areas while protecting other resource values (e.g., wildlife habitat and security, air and water quality, control of noxious weeds);

We note of course that the Forest Service will need to evaluate and analyze the impacts (e.g., water yield, sediment production, air quality modeling) of any new modified alternative, and display those impacts in the FEIS.

The EPA also believes that monitoring is a necessary and crucial element in identifying and understanding the consequences of one's actions, and should be an integral part of any management decision. Specific monitoring information should be disclosed in the FEIS to assure that the effects of the proposed activities on water quality (i.e., physical, chemical and biological effects) and air quality will be determined.

Our more detailed comments, questions, and concerns regarding the analysis, documentation, or potential environmental impacts of the Pinkham Timber Sales DEIS are enclosed for your review and consideration as you complete the Final Environmental Impact Statement (FEIS). Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the Pinkham Timber Sales DEIS has been rated as Category EC-2 (Environmental Concerns - Insufficient Information). A copy of EPA's rating criteria is attached.

As can be seen from the enclosed comments, we have environmental concerns about projected high peak flow increases in some area streams, and about adverse wildlife impacts from exceedances of forest standards for open road density, and from regeneration timber harvests that would leave many large forest openings. The EPA also notes that proposed actions in the Tobacco River and Kooconusa Reservoir drainage will need to be consistent with the Montana Department of Environmental Quality's development of a TMDL for these waterbodies, and believes additional information is needed to fully assess and mitigate all potential impacts of the management actions.

The EPA appreciates the opportunity to review and comment on the DEIS. If we may provide further explanation of our concerns please contact Mr. Steve Potts of my staff in Helena at (406) 441-1140 ext. 232. Thank you for the opportunity to comment.

Sincerely,

Original Signed By John F. Wardell

John F. Wardell
Director
Montana Office

Enclosure

cc: Cindy Cody/Virginia Rose, EPA, 8EPR-EP, Denver
Ann Puffer, Forest Service-Region 1, EAP, Missoula
Roxanne Lincoln, MDEQ-Resource Protection Planning Bureau, Helena
Dale Harms, USFWS, Helena

EPA Comments on the Pinkham Timber Sales and Associated Activities Draft Environmental Impact Statement

Brief Project Overview:

The Rexford Ranger District of the Kootenai National Forest evaluated four alternatives to reduce fuel accumulations and risk of wildfire; reduce tree density, root rot disease, and forest health; and provide timber to the local economy in the Pinkham Decision Area. The Pinkham area is located 3-17 miles west and southwest of the Town of Eureka, Montana.

Alternative 1 is the no action alternative.

Alternative 2, the proposed action and preferred alternative, would treat 7,980 acres including timber harvest of 6,370 acres (24.3 MMBF), underburning of 7,740 acres, and excavator piling and burning on 240 acres. Approximately 1.1 miles of new road and 1.0 mile of temporary road would be constructed and 38 miles reconstructed. This alternative would include a programmatic Forest Plan amendment to manage open road densities above the 0.75 level mi/mi² prescribed for wildlife protection (i.e., at 1.78 mi/mi²).

Alternative 3 would treat 7,510 acres including timber harvest of 5,850 acres (21.1 MMBF), underburning of 7,310 acres, and excavator piling and burning on 200 acres. Approximately 1.1 miles of road and 1.5 miles of temporary road would be constructed, and 38 miles reconstructed. Alternative 3 would implement additional road restrictions to meet the open road density standard of 0.75 mi/mi².

Alternative 5, would treat 6,930 acres including timber harvest of 5,320 acres (12.0 MMBF), underburning of 6,160 acres, and excavator piling and burning on 770 acres. Alternative 5 would only implement salvage and commercial thinning (no regeneration harvest). No new permanent or temporary road would be constructed and approximately 36 miles of road reconstructed.

Comments:

Alternatives

1. The EPA recognizes that resource trade-offs are involved in land management decisions, however, we are concerned about potential the adverse environmental impacts associated with the proposed action (i.e., large peak flow increases in some streams, large forest openings, open road density exceeding forest standards, etc.). We suggest that it may

be possible to reduce these adverse effects and better optimize the ability of the preferred alternative to address both project purpose and need (i.e., reducing wildfire risk, improving forest health, and providing timber to the local economy) and the significant issues (forest health, wildlife habitat and security, air and water quality, scenic quality, etc.), by constructing a modified preferred alternative by selecting treatment units/methods and road management options from among the current alternatives.

We recommend that the Forest Service further evaluate the individual treatment methods/units and consider constructing a modified preferred alternative by picking and choosing treatment units and road management from among the present action alternatives. This may allow an optimal alternative from a resource and environmental perspective to be found that may better address project purpose and need and the significant issues. Inclusion or discussion of such additional alternative evaluation in the FEIS would also better explain to the public the trade-offs involved in making land management decisions, and may lead to improved public acceptance of decisions. We note of course that the Forest Service will need to evaluate and analyze the impacts (e.g., water yield, sediment production, air quality modeling) of any new modified alternative, and display those impacts in the FEIS.

Desirable features we consider worthy of including in a modified preferred alternative include:

- └ meet or exceed forest standards for open road density and restrict motorized vehicle access adequately to protect wildlife and wildlife habitat and watersheds while allowing reasonable public access. Given the heavily roaded nature of the project area, and the need for numerous road closures/obliteration, to meet Forest Plan Standards, the EPA recommends particular scrutiny of all units necessitating road construction. New road construction should be minimized, and road obliteration and reconstruction is encouraged to reduce road caused watershed problems and road related wildlife security/habitat impacts. Consideration should also be given to converting proposed new permanent roads to temporary roads which are obliterated following project use;
 - └ treat as many acres as possible to restore desired forest health conditions and reduce fuel loadings in high fire risk areas while protecting other resource values (e.g., wildlife habitat and security, air and water quality, control of noxious weeds).
2. Of the alternatives presented in the DEIS the EPA favors Alternative 3 and Alternative 5 over Alternative 2. Alternative 3 would better address wildlife needs by meeting the forest open road density standards, and limiting forest openings to 40 acres or less, while still being responsive to the wildfire risk reduction, forest health, and economic purpose and need of the project. However, we believe that this alternative could be improved by modifications after further review and evaluation.

For example, the EPA recommends reconsideration of proposed timber harvest in units 18, 118, and part of unit 19 in Alternatives 2 and 3. It is stated on pages II-19 and II-29 that harvest of these units for Alternative 2 and Alternative 3 requires the construction of 1.1 miles of new permanent road. Since these units only provide 1,102 MMBF of timber in Alternative 2 and 770 MMBF of timber in Alternative 3, it does not appear to us that this relatively small volume of timber provides adequate justification for construction of 1.1 miles of new road. New road construction results in adverse erosion and sediment production impacts and adverse wildlife security and habitat impacts as well as high cost. Is the cost of road construction and the adverse environmental effects of new roads justified by the proposed timber harvest in these units?

Alternative 5 would not implement regeneration harvest and would not construct new permanent or temporary roads. This alternative would better address wildlife needs by meeting the forest open road density standards, and avoiding large forest openings, although there is some question of whether this alternative is responsive to the wildfire risk reduction, forest health, and economic purpose and need of the project.

3. It is difficult for the reader of the DEIS to ascertain specific reasons for inclusion of some units in one alternative but not another. We believe it would be helpful to include additional discussion of the rationale for selection of particular treatment methods/units and road management decisions for the alternatives. This would improve public understanding of the proposed project, and better achieve the public disclosure purpose of the EIS.

Also, it is difficult for the reader of the DEIS to suggest a modified or new alternative since explanation of the rationale for inclusion of specific units in individual alternatives was not provided in the DEIS. We believe more meaningful suggestions for selecting treatment units among the existing alternatives to reconstruct a new or modified alternative may be forthcoming to the Forest Service if rationale for selection of the treatment units for the alternatives were provided. Perhaps a table could be included in the Appendix of the FEIS to identify treatment units and their rationale for each alternative.

Air Quality and Fire

4. We support the Forest Service use of prescribed fire to control forest fuel accumulation and reduce risk of wildfire and to influence forest composition and structure (e.g., low intensity fire in specific planned locations spread out over time so that some vegetative cover could become reestablished before runoff, with fire carried out during climatic conditions that minimize air quality impact). We believe that judicious use of prescribed fire provides a good resource protection scenario where it can be carried out with minimal risk to water quality/fisheries, wildlife habitat, and noxious weed spread and air quality impacts. Site-specific evaluation of underburning risks should be incorporated into the modified preferred alternative.

We do have several comments on the air quality analysis information in the DEIS as follows:

- a) If there is a meteorological station representative of the area, a windrose should be presented to indicate the direction of the prevailing winds. Windroses, representative of each quarter of the year, would be beneficial to give the public an idea of the direction of prevailing winds during the spring, summer, and fall seasons when prescribed burning is likely to occur. This information will be of interest to local residents to determine their susceptibility to impacts from burning in their immediate area (page III-33).
 - b) In the discussion on Atmosphere and Wind Flows on page III-34 there is a comment that “Strong winds help to disperse smoke rapidly.” Strong winds prevent smoke from being carried aloft by thermal buoyancy which would result in greater dispersion downwind. What is the maximum wind at which prescribed burning will be allowed?
 - c) On page III-41 the fourth bullet states, “ Night time burning in the vicinity of local communities would be avoided,.... .” This statement should also apply to early morning hours (i.e., prior to 10 AM), since a radiation inversion typically does not disperse prior to mid-morning periods. Also, please be more specific as to the latest time in the day when burning is allowed. Radiation inversions can start as early as 6 PM, and burning should be avoided whenever such inversion conditions exist. Is night time burning allowed outside the vicinity of communities?
 - d) The EPA believes monitoring of activities will be beneficial to improving understanding of impacts upon air quality. We encourage you to develop a monitoring plan to help you establish a quantitative and qualitative understanding of the impacts to air quality. Such a monitoring plan would also help to validate quantitative predictions for future activities. Careful scheduling of the many burning activities to coincide with proper climatological and meteorological conditions will be necessary to avoid air quality problems. We note that the PM-10 nonattainment area of Whitefish is located southeast of the project area, and the Class I air quality area of Glacier National Park is located east of the project area.
 - e) We suggest that consideration be given some use of mechanical treatments in lieu of prescribed burns in areas where there are nearby home developments to reduce the risk of the escape of prescribed burns that may threaten nearby home developments, and/or where and when adverse air quality impacts from burning may be particularly severe.
5. Prescribed burning in certain areas may have the potential to stimulate or promote noxious weed problems (e.g., Dalmation toadflax or leafy spurge growth) or destroy insects that may have been planted for biological weed control. Have the potential effects of prescribed burns upon noxious weed problems been considered? We suggest that such considerations be

evaluated for each individual burn unit.

6. It may be preferable in high risk fire areas to accept a higher level of short term water quality impact from forest treatments now, than to suffer through potentially more catastrophic sedimentation and air quality impacts from a wildfire in the future. We recommend that trade-offs of forest treatments/wildfire risk reduction vs. short term direct water and air quality and wildlife impacts from treatment units and road management be discussed more fully in the FEIS. Perhaps this could be done in association with the evaluation of new or modified alternative.

Aquatic Resources

7. Are the many existing roads in the Decision Area a source of nonpoint source pollution? We favor alternatives that propose to remove (obliterate) or improve roads with known hydrologic problems (e.g., surface erosion, interception and routing to streams). It would be of interest to identify in the FEIS the existing roads that cause nonpoint source pollution problems so that these roads could be prioritized for obliteration or improvement.
8. We note that the Tobacco River and Koocanusa Reservoir are listed as a water quality limited water bodies by the Montana Department of Environmental Quality (MDEQ). These listed streams will need development of Total Maximum Daily Loads (TMDL). The TMDL process identifies the maximum load of a pollutant (e.g., sediment, nutrient) a waterbody is able to assimilate and fully support its designated uses; allocates portions of the maximum load to all sources; identifies the necessary controls that may be implemented voluntarily or through regulatory means; and describes a monitoring plan and associated corrective feedback loop to insure that uses are fully supported.

We recommend that the Forest Service contact the Montana Department of Environmental Quality (i.e., Roxanne Lincoln at 444-7423 in Helena) to ensure MDEQ concurrence on, and coordination of, proposed activities in the Tobacco River and Koocanusa Reservoir drainages with the MDEQ's TMDL development.

9. The EPA is concerned about the large estimated peak flow increases of as much as 13-15% in some Pinkham Creek watersheds (Table 17, page III-50). Such large peak flow increases may have the potential to erode unstable stream banks and reduce channel stability. We believe it would be helpful if further discussion or explanation were provided in the FEIS to better describe how the recommended maximum peak flow increases shown in Table 17 were arrived at. In particular the differences in channel condition and stability that allows recommended peak flow increases up to 20% in some watersheds (e.g., Workman Draw, Pinkham 08) and only 10% in other watersheds (e.g., Cum. Upper Pinkham, Cooks Run) should be better explained. We note that the higher projected peak flow increases from timber harvest in the Pinkham area seem to occur in those watersheds where the Forest Service has determined that

higher recommended maximum peak flow increases can be tolerated. We also note that projected peak flow increases are very close to recommended maximum peak flow increases in several watersheds (e.g., Cum. Pinkham 06/07, Gut, Workman Draw). Has a factor of safety been considered in developing these recommended peak flow increases? Would it be appropriate to convert some of the proposed regeneration cuts to improvement cuts or thinning, and/or deletion of some regeneration units to reduce peak flow increases?

10. The EPA also believes that water quality/aquatics monitoring is a necessary and crucial element in identifying and understanding the consequences of one's actions, and should be an integral part of any management decision. While it was stated that a Monitoring Plan is located in the Project file, we believe monitoring information should be included in the NEPA documents. Would the Tobacco River (a water quality limited stream in need of a TMDL) or Pinkham Decision Area streams which flow into water quality limited water bodies be monitored?

We believe the EIS should include a commitment in the DEIS to carry out adequate water quality monitoring activities to assure that the project's aquatic and hydrologic effects are detected. How will the Forest Service detect actual effects of the proposed activities on water quality and the aquatic ecosystem, and know that BMPs are effective (or ineffective), and in-stream beneficial uses maintained (or not maintained), and whether corrective actions may be needed without adequate water quality monitoring?

The BMP Implementation Process should require evaluation of BMP effectiveness in protecting water quality and maintaining water quality standards are maintained and protecting beneficial uses. Water quality monitoring of streams that are subject to potential timber harvest activities is need to provide a feedback mechanism to management to ensure that BMPs are effective. Monitoring is needed for site-specific application of BMPs and to validate and document BMP effectiveness for future development and improvement of BMPs. We believe some minimal level of monitoring should be carried out during and after the timber sale to detect hydrologic or aquatic habitat effects that may actually occur in potentially affected drainages. We realize Forest Service monitoring budgets are limited, however, some level of monitoring in drainages that are prioritized for potential affects is appropriate.

We would like to see clear water quality monitoring goals and objectives identified and described in the FEIS (e.g., what questions are to be answered; what parameters are to be monitored; where and when monitoring will occur; who will be responsible; how the information will be managed and evaluated; and what actions will be taken based on that information).

The monitoring plan should at a minimum include sampling design, methodology, parameters, sampling site locations shown on a map, and frequency or pattern of sampling. The EPA strongly recommends incorporation of a biological component, such as rapid bioassessments using macroinvertebrates, in a monitoring program. Monitoring of the aquatic biological

community is desirable since the aquatic community integrates the effects of pollutant stressors over time and, thus, provides a more holistic measure of impacts than grab samples of turbidity and suspended sediment. We encourage you to use the following reference materials in designing and disclosing a monitoring program:

"Monitoring Guidelines to Evaluate Effects of Forestry Activities on Streams in the Pacific Northwest and Alaska", Lee H. McDonald, Alan W. Smart, and Robert C. Wissmar; May 1991; EPA/910/9-91-001.

"Rapid Bioassessment Protocols for Use in Streams and Rivers", James A. Plafkin; May 1989; EPA/444/4-89-001.

Such specific monitoring information should be disclosed in the FEIS to assure that the effects (i.e., physical, chemical and biological effects) of the proposed activities on water quality and the aquatic ecosystem will be determined, and to validate and document BMP effectiveness in protecting water quality, beneficial uses, and Montana Water Quality Standards. This specific information is also needed to provide assurance that instream beneficial uses will be maintained. The effectiveness of mitigation measures can only be known if monitoring is performed and data collected. Without this information the EIS is inadequate to fully assess the role of monitoring and evaluation in project implementation.

11. We are pleased that skidders, dozers, or other heavy equipment would not be allowed for skidding logs within the RHCA, and that log skidding outside the RHCA would only be allowed on frozen ground or when soil moistures are below 18% (page III-49). We are also pleased that erosion control would be kept current with skidding activities and that road blading would be focused on reducing road surface erosion and sediment delivery from drainage systems on Roads 7211 and 7281 into the Tobacco River.

Soil Resources

12. The soils and landtypes analysis in Chapter III (page III-11) discusses project effects on soil resources, but does not clearly display erosion and sediment production potential relative to landtypes or harvest units. The DEIS discusses landtypes and indicates that "the standard features of Design Criteria 12 in Appendix 1 would prevent unacceptable disturbance." The Design Criteria 12 in Appendix 1 indicate that ground based operations would be allowed when the standard soil moisture level was 18% or less, and that harvester operations would be allowed as long as machinery operates on top of slash and soil moisture is 30% or lower. Who will be monitoring soil moisture levels during logging and skidding operations? How frequently will soil moisture levels be determined when equipment is operating?

Review of the project alternatives maps in Chapter II shows that several harvest units have

streams flowing through the unit. For disclosure purposes we recommend that proposed harvest units that are located on sensitive landtypes (i.e., high erosion potential-areas with clayey or sandy erosive soils, high slopes, and frequent or nearby drainages) be clearly identified in the FEIS. Will winter logging and operation on dry ground adequately protect all sensitive areas? Will tractor logging even on low moisture soils (i.e., < 18% moisture) in units with erosive soils that are adjacent to streams provide adequate protection for streams? Are all harvest units in sensitive areas needed? Should some of these sensitive areas be avoided? Will new roads and temporary roads be constructed in areas of low erosion potential? It may be that yarding methods with lower impact than tractors such as helicopter or skyline logging or logging on snow or frozen ground would be appropriate in areas with "high sediment risk."

Wetlands

13. Design criteria 13 in Appendix 1 indicates that all action alternatives were designed to avoid and protect wetlands. However, we did not see wetland areas within the Pinkham Decision Area identified. Are there are wetlands areas with the Decision area? Wetland areas should be identified to assure that harvest units will in fact avoid and protect wetlands. We encourage the Forest Service to delineate and mark the RHCA's and perennial seeps and springs and wetlands on maps and on the ground before harvesting so that timber contractors will be able to avoid them.

Vegetation and Disturbance Processes

14. The discussion of vegetation and disturbance processes on pages III-20-29 does not identify the role of past timber harvesting practices such as clearcutting and selective removal of large fire resistant trees, (along with the identified role of fire suppression) in creating forest health problems. The extent to which past harvest and fire practices have contributed to the forest health problems experienced today would be of interest.
15. We are pleased that regeneration units were designed "to retain all or most western larch, douglas fir and ponderosa pine trees over 14 inches in diameter" (page II-17).

Wildlife and Transportation

16. The EPA is concerned about the exceedance of the forest standard for open road density (0.75 mi/mi²), and by the extent of proposed regeneration harvest in big game movement corridors that is proposed with Alternative 2. The EPA is concerned about wildlife impacts that may occur from open road densities above the forest standard and from large forest openings and reduced habitat. We recommend that the Forest Service obtain and include in the FEIS written documentation from the U.S. Fish & Wildlife Service (USFWS) regarding their views on open road densities above the forest standard relative to grizzly bear impacts, and from the Montana

Dept. of Fish, Wildlife & Parks regarding their views on impacts to big game.

It is not clear why additional road closures are not proposed to achieve the 0.75 mile/square mile open road density standard in the preferred alternative? Will any roads be closed or obliterated in the Pinkham Area? In light of the potential impacts of the present preferred alternative to wildlife security and reduced wildlife habitat effectiveness we believe the FEIS should include detailed descriptions of the mitigation activities that are proposed to compensate for these potential adverse effects.

17. We also note that with the advent of all terrain vehicles (ATVs) and off-road vehicles (ORVs) it is difficult to effectively restrict motorized access to public lands with simple road closures (i.e., gated closures). An effective policing and enforcement program is needed to assure that motorized access does not occur in restricted areas. The FEIS should describe the Forest Service inspection and enforcement program that will be used to assure that ATVs and ORVs will not violate motorized vehicle access limitations. It is important that the stated wildlife protection objectives be achieved, and these goals can only be achieved if enforcement of road access restrictions occurs.
18. Thermal cover for big game is discussed on page III-65, however, effects of proposed timber harvest on big game thermal cover are not clearly disclosed. To what extent will proposed timber harvest and large forest openings created by the timber harvest impact big game thermal cover?
19. Would it be appropriate to place larger harvest units adjacent to existing forest openings in order to preserve areas that are currently less fragmented?

General

20. We note that there is a discrepancy between pages II-15 and Summary-4 in regard to the number of openings over 40 acres that would be created in Alternative 2 (i.e., 14 or 15 openings over 40 acres?). This discrepancy should be corrected.

