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Appendices - Volume I A and I - Response to Public Comment

Final Environmental Impact Statement

Land and Resource Management Plan

Ochoco National Forest and Crooked River National Grassland

Caring for the Land...

FEIS APPENDICES A & I

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Appendix A

Issues, Concerns, and Opportunities

Appendix A

Issues, Concerns, and Opportunities

Introduction

This appendix covers the major steps taken to identify public issues, management concerns and resource opportunities considered during the planning process. The appendix is organized into five sections: 1) the process used to identify the issues, concerns and opportunities, 2) contacts and consultations with others, 3) the criteria used to screen the issues down to the few selected to be addressed in the Environmental Impact Statement (EIS), 4) changes in the issues between the Draft and Final EIS, and 5) a discussion of the issues and how they were used to formulate alternatives.

Issue Identification

During the Fall of 1980, the Forest began to identify the principal issues to be addressed in the Draft Forest Plan. The Forest Management Team (Forest Supervisor, District Rangers, and Forest Staff Officers) decided to try a fresh approach, without a rehash of old issues from former Unit Plans. The previous issues were reviewed but not established as a base.

The Management Team agreed to utilize interest groups as a starting point. Individuals representing key interests of conservationists, recreationists, sportsmen, ranchers, timber industry, and government agencies were invited to identify preliminary issues that could be expanded or refined by a broader audience. These key interest groups met with the Forest Interdisciplinary Planning Team (ID Team) at six meetings held during the period of September 27 to October 2, 1980. A total of 56 people attended these meetings.

From the meetings, 125 preliminary issues, concerns, and opportunities (ICO's) were identified. The ID Team then consolidated these ICO's into 60 issues and submitted this list to the public along with a request for response. A total of 338 copies were mailed to addresses on the Forest's mailing list, 450 copies were distributed from our offices, and another 2,000 were distributed through bulk mailings to the rural areas around Burns and Prineville, Oregon.

In addition, public involvement was requested through various news media. Newspapers, radio, and television participated as listed below:

Media	Title	Origin
Newspapers	The Newspaper	Prineville
	The Central Oregonian	Prineville
	The Burns Herald	Burns
	The Madras Pioneer	Madras
	The Bulletin	Bend
	The Redmond Spokesman	Redmond
Radio	KRCO	Prineville
	KBND	Bend
	KICE	Bend
	KZZR	Burns
Television	KTVZ	Bend

The ID Team also conducted six public meetings to gather additional public comment. These meetings were in Prineville (two meetings) 11/12/80, Dayville 11/13/80, Paulina 11/13/80, and Burns (two meetings) 11/24/80. Five other meetings were held for Forest Service employees.

Response from mailings and attendance at the meetings was as follows:

Mailing Responses - 164

Attendance at Public Meetings - 52

Attendance at Forest Service Employee Meetings - 121

The ID Team used the information that was gathered to consolidate the issues into resource or land use topics. Seventeen issues were developed from this exercise. Comments that were not clearly represented in these 17 issues were also evaluated by the ID Team.

In January 1981, these 17 issues were submitted to the public for verification and ranking by intensity. Ranking the issues was useful initially, however, the rankings were later dropped when they no longer proved meaningful in developing the alternatives. The 17 issues were condensed to 14 as a result of the analysis of the public responses. These 14 issues are listed below.

1. What should be the level of timber production?
2. How can activities on the Forest and Grassland benefit social and economic wants and needs of local communities?
3. What is the appropriate level of livestock grazing and intensity of range management?
4. How should riparian areas be managed to meet various resource needs?
5. What road system should be provided to meet public, commercial and administrative access needs?
6. Should habitat be provided for increased populations of big game?
7. How much roadless recreation opportunity should be provided?
8. Should the Forest and Grassland limit the emphasis placed on visual resources to those areas of high scenic value?
9. How much old growth habitat should be provided?
10. To what extend should off-road vehicle use be controlled?
11. To what extent should firewood be provided to meet demand?
12. How much habitat should be provided for wildlife species dependent on dead trees?
13. To what extent should the Forest and Grassland provide for an expanded trail system?
14. To what extent should the Forest provide for winter sports activities?

The interdisciplinary team developed alternative management strategies based on these issues. As the alternatives were developed two of these issues were removed from the preceding list. They were the off-road vehicle use issue and the trail issue (numbers 10 and 13).

The off-road vehicle use issue, as initially identified in the public involvement process, was primarily an issue on the Crooked River National Grassland. It appeared at the time that the issue could be negotiated at the local level, outside the Forest and Grassland Plans. During the validation effort between the Draft and the Final, the public and agency interest in ORV use has increased. The Henderson Flat area on the Grassland continues to a controversial area. In addition, some of the local citizenry has voiced concern over resource damage by ORV's on other areas of the Forest and Grassland.

The trail issue was also dropped as a separate issue. As the proposed trail system is closely tied with the allocation of roadless areas, the two issues were closely related. On those trails (existing or proposed) not part of the roadless area allocation issue, only minor resource interactions were identified, with little affect to the overall management of the Forest and Grassland.

In April 1984, three public meetings were held to update the issues and acquire additional information on unroaded areas. The meetings were held in Prineville (on April 2, 3, and 4) with 29 people attending.

After those meetings, the Forest continued to use a variety of activities to keep its employees and the local communities informed of the planning process. We published periodic articles and special editions in our Forest and Grassland report. We prepared and distributed a Forest Plan Report. During the summer and fall of 1985 we had multi-resource media coverage, providing information and education on Forest management. Through a networking process, each Management Team member has been contacting key individuals in our local communities and informally discussing Forest management and the planning effort.

The Proposed Land and Resource Management Plan and the Draft Environmental Impact Statement were published in September, 1986. Notice was published in the Federal Register on September 12, 1986. During the 90-day public review period, 1,125 copies of the Draft Plan and EIS were distributed. The Forest announced the availability of these documents through seven news releases and three Forest Plan reports. Office hours were extended at the Supervisor's Office in Prineville. The Forest held six public meetings and 25 organizational, individual or agency meetings. Radio and television interviews, fliers, newspaper articles, and displays at the Jefferson, Harney and Crook County Fairs were also used to inform the public of publication.

A number of interest groups were active during the DEIS comment period. Of particular note was the level of activity by timber industry, the Central Oregon Economic Development Council and a coalition of eight environmental groups. Two additional groups were actively involved in expressing opinions about the management of Lookout Mountain: snowmobile organizations and the retirement community. The activities of these groups appeared to play a significant role in soliciting additional public comment, and in many cases, appear to have been a major source of information from which these comments were generated.

During the 90-day public review period, 2,154 comments were received. The results of the public comment period for the DEIS are thoroughly discussed in Appendix I of this FEIS. The substantive comments received on the DEIS did result in the development of a new alternative, Alternative I. In addition, Alternatives B and C were modified.

A Supplement to the DEIS was prepared in response to two appeals that took issue with some of the methods used in Forest planning by the National Forest in the Pacific Northwest. The appellant was concerned with how the "No Action" Alternative was described, and the methods used to address Forest planning management requirements. The Supplement described a new alternative, Alternative NC (no change), and analyzed alternative levels of management requirements. The SEIS was published in October, 1988, and the 90-day public review period ended January 17,1989. The Forest received nearly 200 letters in response to the Supplement. The results of the public response period for the Supplement are also discussed in Appendix I of this FEIS.

Significant steps were employed during the last 3 months of final document preparation to insure that direction in the Final Plan responded accurately to comments received on the Draft. Meetings were held, and contacts made with selected groups, individuals, agencies and political leaders in order to:

Validate public responses received during the process.

Insure that we correctly interpreted what was said.

Insure that we did not miss something or overlook stumbling blocks towards successful implementation.

Set the stage for implementation of the Plan.

This networking followed our efforts in seeking broad public review of our draft documents. During this time, 39 meetings have been held with more than 289 citizens, and 69 interest groups or agencies.

In response to this effort, when appropriate, adjustments were made to the final planning documents. This was intended to strengthen the Plan and build a base of support for effective implementation.

During public review of the Draft Plan, the issues of uneven age management and growing large diameter ponderosa pine trees were brought to the forefront. To promote public information and education on these issues in a contemporary fashion, a video entitled "Ponderosa Pine Management in Central Oregon" was developed. Presentations were given to local civic clubs, interest group meetings, and the media.

Consultation with Others

Several agencies and Native American Tribes were involved in the initial issue development process. The most active of these agencies were the Oregon Department of Forestry, Oregon Department of Fish and Wildlife, and the Bureau of Land Management. These contacts provided the identification of agency concerns that could be dealt with in the plan, provided information useful in the analysis, and allowed the coordination of management and planning efforts.

Reviews of other agency plans, which could affect the Forest and Grassland Plans, were undertaken by the Forest. The following plans were examined:

County Plans from Crook County, Deschutes County, Grant County, Harney County, Jefferson County, and Wheeler County.

State Plans from the Oregon Forestry Department, Parks and Recreation Division, State Comprehensive Outdoor Recreation Plan, Department of Fish and Wildlife, and the Oregon Recreation Trail System.

Bureau of Land Management Plans, including the Brothers Grazing Management Program, Wilderness Study Proposals, and the John Day Area Plan were studied.

Also reviewed were plans for the Warm Springs Reservation and the Central Oregon Economic Development Plan for fiscal years 1984 and 1985.

The review of these plans did not identify any unknown issues. The goals of those agency plans were included in at least one of the alternatives developed by the Ochoco National Forest.

Interest groups involved in the development of issues, concerns, and opportunities were assembled periodically to keep them appraised of progress and to acquire additional information or feedback from them. The groups are:

Conservationists - Local members of the Oregon Natural Resource Council were contacted. These contacts included, as a principal contact, the Central Oregon Conservationists. This group also included the Blue Mountain Resource Alliance, the Grant County Conservationists, and the Central Oregon Chapter of the Sierra Club.

Recreationists & Sportsmen - Included are the Ochoco Snow Sports Club, the Oregon State Snowmobile Association, the Nordic Club, the Oregon Hunter's Association, and the Ochoco Elk Hunters.

Ranchers - The Crook County Stockmen's Association was the organization most frequently contacted. The Grey Butte Grazing Association, in their link to the management of the Grassland, was the only organized adjacent landowner group frequently involved in plan development.

Industry - Industry representatives from the local mills often participated. They were joined by representatives from the Northwest Pine Association and the Western Forest Industry Association. The Association of Oregon Loggers also was involved.

Government Agencies - The Forest contacted Crook, Harney and Jefferson Counties, the Governor's Office, Congressman Smith and Senator Packwood.

The Screening Process

The preliminary issue, concern and opportunity comments were screened and consolidated in two separate operations. The first process involved the 125 comments received from the interest groups previously identified. These ICO's were run through a set of screens. First, it was determined if the ICO could be immediately resolved by either the Forest Supervisor or District Rangers. Second, the determination was made whether or not the Forest could and should address each of the ICO's through the planning process. Some suggestions were beyond the scope of this planning effort and comments of this nature were screened out of the potential issues, but were shared with the Forest Management Team. The third screen was the resolvability of the ICO. If the suggested issue was not considered resolvable in the forest planning process, it was referred to the management team for action outside the forest planning process, and dropped as a planning issue. Next, issue statements that were potentially part of a larger issue were identified. For example, the amount of timber available to the local mills could be considered a part of the larger issue of the level of timber harvest which should be provided from the Forest. These issue components were retained and dealt with throughout the planning process.

The second process was to take the tentative issues that passed through the screening process and consolidate them into like comments by resource groupings. These consolidations were then written by the ID Team into terms that would best reflect the contents of those groups. These steps reduced the 125 comments to 60 comments which were submitted to the general public for their comments.

This second set of categorized comments was then evaluated using the following steps:

1. Evaluate Issues and Concerns

   Is it already required in the planning regulations?

   Can it be dealt with by the responsible official without going through the planning process?

   Is it a prior decision which can't be reversed?

   Is it outside of Forest Service jurisdiction?

   Should it be dealt with at some other planning level?

   Does it involve land use allocation?

   Is it operational in nature, a standard, guideline, or budgetary?

   What is the source? From public or management?

   Are there common or similar aspects?

   Categorize comments by 1) production of outputs, 2) use of resources, 3) a management practice or prescription, and 4) management performance or policy.

2. Determine Action to be Taken on Issues and Concerns

   Consider in the planning process.

   Transfer to management for action outside the Forest planning process.

   Determine to be irrelevant.

   Each action was justified and documented.

3. Take Action

   Consider in planning process: develop as an issue or concern, or deal with as a planning or process criteria.

   Refer to management for appropriate action or response.

   Determine to be irrelevant.

The management concerns were then compared with the public issues and incorporated with the issues, or classified into various non-issue categories, such as: administrative decisions, planning criteria, opinions, items required by Federal regulation, items outside the scope of the planning process, items outside of Forest jurisdiction, statements, practices to be shown in prescriptions, and items that are part of the planning process.

The results of the screening process are on the following pages. Three categories are used to identify how the issues and concerns were screened after categorization by resource. The list represents those issues and concerns that were not eliminated, referred, or resolved through the interdisciplinary team's screening process. Many of the issues were similar; an issue statement may be representative of many comments.

How Were the Issues Developed in the Public Involvement Process Handled?

Disposition of Issues by Category [1]

[1]The initials I, C, or O denote whether an issue evolved from a public issue (I), a management concern (C), or an opportunity (O)

Issue #1, Timber Supply and Forest Management

Deferred outside of Plan

Consider re-use of tomahawk in treating thinning slash for firewood availability. (O)

Administer timber sales so as to insure fences will be left intact or repaired promptly. (I)

Treated Same in all Alternatives

Sophisticated logging methods are not always needed. Analyze entire process to ensure continuity of implementation, end product, and follow-through. (I)

Make reforestation a high priority. (C)

Do not conduct precommercial thinning except for mistletoe and insect control. (I)

Stop wasting natural resources, such as wood products. (I)

Protect tree seedlings from animal damage. (C)

Treated Differently by Alternatives

Make more land available for timber production and harvest. (I)

Utilize all available timber mortality in a timely manner. (I)

Depart from non-declining even-flow timber harvest. (I)

Use silviculture practices, such as fertilization and planting of different species, to produce greater timber volume. (I)

Provide more timber products. (I)

Reduce the acreage of forest land available for timber harvest allocated to old growth. (I)

Eliminate burning as a slash treatment method. (I)

Need more intensive timber management (enhance timber and other resources in balanced silviculture practices). (I)

Launch an intensive reforestation program for future needs. (I)

Should clearcutting be practiced on the Ochoco? (I)

Do not create management areas with no programmed harvest. (I)

Clean up logging slash. This would soften the impact and create less animosity toward timber harvesting. (I/O)

We need some intermediate types of harvest and roadless combinations. (I/C)

We are getting good regrowth, but we're cutting trees down faster than regrowth is occurring. (I)

Issue #2, Social and Economic Wants and Needs of Local Communities

Deferred Outside of Plan

People too far from Central Oregon may set plan priorities. (I)

Treated Same in All Alternatives

Analyze cost/benefit of producing timber and quantify effects on habitat and dispersed recreation. (I)

Treated Differently by Alternatives

Correct the disparity between economic considerations given one resource vs. another. (C)

Improve the social and economic condition of the local communities. (C)

Maximize economic and social benefits to locally dependent communities. (I)

Recognize community development needs and opportunities: a) increase employment, b) recognize social impacts of decision made, c) increase National Forest receipts to the County in real dollars, d) provide equitable distribution in employment increases or decreases, e) display impacts of actions on other lands and resources in the community. (C)

Too many dollars are taken out of the system by unroaded allocations. We need the payments to counties generated by returns from receipts for use on local roads and for schools. (I)

Emphasize uses that produce a dollar return vs. those that do not. (I)

Issue #3, Livestock Grazing and Allotment Management

Deferred Outside of Plan

Livestock grazing should not be allowed on the Forest. (I)

More knowledge and information is needed regarding grazing seasons and distribution with associated effects on resources. (I)

Larch should be more available to permittees for fence posts. (I)

Don't use Special Use permits that create an economic impact on the grazing permittees. (I)

Skid trails supporting adequate grass should not be re-used for new entries. (I)

Treated Same in All Alternatives

None

Treated Differently by Alternatives

Provide both a maximum and consistent supply of forage. (I)

Stop repeated timber harvest entries in the same specific areas which result in adverse economic impacts on the grazing permittee. (I)

Visual and riparian management objectives are too restrictive on grazing livestock. (I)

Reduce grazing restrictions to improve utilization and palatability of forage for livestock and wildlife. (I)

Utilize more range improvement practices to obtain better range conditions. (C)

Reduce the use of grazing systems which cause economic impacts on the rancher. (I)

Provide more range improvements to manage the range, to meet resource management directions for all resources (riparian, etc.), and still maintain stock numbers. (I/C)

Develop more water systems. (I)

Overgrazing is creating erosion. (I)

Reduce cattle grazing (I)

Whenever range improvements are carried out, commensurate animal unit months (AUM's) should be made available. (I)

Assignment of other areas to wilderness would reduce forage production over the long haul. (I)

Issue #4, Riparian Area Management

Deferred Outside of Plan

Livestock enclosures of creeks (e.g. Silver Creek) have not encouraged riparian recovery. (I)

Repair damage to rockhound sites to prevent erosion. (I)

Treated Same in All Alternatives

All soils on slopes over 30 percent should not be lumped into one category of being highly erodible. (C)

Treated Differently by Alternatives

Provide the greatest balance of water quality and quantity. (I)

Maintain riparian habitat which is healthy and improve current degraded riparian habitat associated with streams, springs, intermittent streams, etc. (I)

Accomplish recovery of riparian communities by 1990. (I)

Harvest timber in a manner to reduce stream channel damage from high spring runoff and to increase summer flows. (C)

Do not use fences to restrict cattle grazing in riparian areas. (I)

Place more emphasis on enforcing existing regulations pertaining to soil, water, and wildlife resources. (I)

Allow no more enclosures of riparian areas until results of riparian recovery are proven in existing closures. (I)

Do not construct any more riparian enclosures. (I)

More restrictions are needed concerning tractor and rubber tired skidder logging on wet soils. (C)

Keep logging disturbance to a minimum, such as reusing same skid roads. (C)

Issue #5, Transportation System

Deferred Outside of Plan

Do not construct any roads across private land without permanent public access. (I)

Close roads which connect Forest lands with deeded land. (I)

Bicycling could be a significant recreational activity on the Ochoco. Consideration should be given to this potential in road design, construction and reconstruction. (I/O)

Private owners should not close access to roads built with public money. (I)

Involve public in decision to close roads, and inform public before roads are closed. (I)

Off-road vehicle use should be stopped when it creates erosion or occurs on fragile terrain. (I)

Treated Same in All Alternatives

Roads should be constructed to the lowest standard (length and width) which allows protection of other resources. (I)

Do not pave roads. (I)

Off-road vehicles should be permitted for resource administration only. (I)

Treated Differently by Alternatives

More roads are needed to provide intensive use of all resources (C)

Too much money is being spent on high standard road construction (I)

Too many roads (I)

Well-known established roads should not be closed to vehicular access; roads which have been closed should be reopened. (I)

Keep existing roads and rockhounding areas open for access by motor vehicles and the public. (I)

Whenever possible, use gates for closing roads instead of tearing up roads. (I)

species. Others note that grazing increases are dependent upon new water developments away from existing riparian areas which help to disperse use and reduce riparian damage. The public felt the Forest needed to show site potentials for willows and cottonwoods and to implement activities for the protection of various plant communities. Some stated that the Ochoco National Forest needs to stop planting "tough" poor nutrient grass for riparian protection.

The Oregon Department of Fish and Wildlife stated that the information on livestock grazing was not sufficient in the EIS. They wanted more information on the management systems, condition and trend, actual use and improvement programs to evaluate effects of the grazing program.

The Columbia River Inter-Tribal Fish Commission felt that when management strategies and integrity fail to protect riparian areas, fencing will be used. They ask how many miles of fence will be needed to protect riparian areas. The Commission also questioned the record of compliance of cattlemen in moving their herds as frequently as is required.

The U.S. Environmental Protection Agency stated that in prioritizing the development of Forest level plans, it would encourage making the allotment management plan one of the first. This is because it will have a direct bearing on riparian areas, water quality, and the protection of beneficial uses.

Response:

The Draft EIS did not do a good job of covering the environmental consequences of livestock use on the Forest and Grassland. This area has received much more attention in Chapter 4 of the FEIS. Additional work has been done on identifying needed improvements in riparian areas in Chapter 4. Watersheds have been prioritized for improvement and allotment management plans scheduled for updating. Schedules are included in the Final Plan to show these priorities, as well as schedules to show the projects and work necessary to meet riparian prescriptions.

An evaluation was done for the final plan to estimate total miles of fence and water developments to implement the riparian prescription. These figures are included in Chapter 2 of the FEIS, Table 2-8, Range Improvements. Potential for individual stream reaches to support willows, cottonwoods and other deciduous shrub and tree species will be determined on a site-specific basis in individual allotment management plans using riparian plant community guides published by the Pacific Northwest Forest and Range Experiment Station.

Erosion control seed mixes used on road cut and fill slopes commonly contain several species of grasses. Often one or two of these species are not as palatable as others to wildlife and livestock. The emphasis in these instances is on using species that establish quickly to hold the soil in place and which won't be immediately consumed by livestock and wildlife.

Standards and Guidelines have been developed in the Preferred Alternative I to identify and protect threatened and endangered species and sensitive plants.

0500-02.3 Grazing Effects

Two letters discussed the issue of threatened and endangered plants affected by grazing. Some comments were that affected threatened, endangered or unique plants need to be addressed better by the Ochoco National Forest, or that the Forest should plant grass so it will be available during peak season use. This, according to respondents, would allow natural threatened and endangered species to develop and remain strong and disease resistant.

Response:

Chapter 4 of the FEIS evaluates the effects of grazing by domestic livestock on threatened, endangered and sensitive plant species.

Standards and Guidelines have been developed in the FEIS alternatives to identify and protect sensitive plant species. Forage utilization standards in the Final LRMP will allow good plant vigor and high levels of plant species diversity.

@0500-03 Raise Grazing Fees

Eighty-four responses, including those of the EPA and the CRITFC, commented on the fee aspect of the grazing program.

Some stated that the Ochoco National Forest is operating a cattle grazing give-away program and that it is undercharging cattlemen for the use of publicly owned land. Some also remarked that the Forest Service is operating a program which costs more than it returns to the Treasury. These respondents felt that the permittees should pay the full costs of administration of the grazing program.

The Environmental Protection Agency felt that the increased costs in grazing management area should not be included in "environmental" effects, but that these costs should be discussed as an economic issue.

The Columbia River Inter-Tribal Fish Commission stated that the Ochoco National Forest should consider the factors that are involved in the trade-off between Range and Timber management. The Commission also asked why the most productive lands were allocated solely to range.

Response:

The issue of grazing fees is outside the scope of the Forest planning process. The grazing fee formula was set by Congress, and in 1985 the base level was set by executive order. Legislation would be required to change the grazing fees. Even though the returns the Forest Service gets in the form of grazing fees do not cover the cost of administration of the range program, the economic benefits of the program are realized in the local economy.

The allocation of management areas in the DEIS and Draft Plan was misunderstood. Timber/range emphasis was not intended to be exclusive use The FEIS and Final LRMP have changed this Management Area to General Forest (Ochoco National Forest) and General Forage (Crooked River National Grassland); these are both multiple use areas.

@0500-04 Management

Six comments dealt with the issue of specific grazing management systems.

Some comments were that the Ochoco National Forest failed to fully disclose specific grazing management systems, and that issues and concerns need to be discussed on an allotment-by-allotment basis. One reviewer felt the Rock Creek allotment was not covered adequately in the proposed plan. In addition, some stated that the Forest Service needs to include ranchers in the management picture and display present and future grazing conditions.

Response:

Specific grazing management systems will not be outlined in the FEIS or Plan. Those decisions are made in the individual allotment management plans in consultation with the affected permittee. They are site-specific and require on-the-ground analysis. No matter what grazing system is employed, each allotment will be monitored to make sure it is meeting all resource objectives such as riparian area recovery and wildlife habitat objectives.

@0500-05 Utilization Rates and AUM's

There were 18 comments that discussed implementation of the plan and utilization levels for grazing.

Some felt that the Ochoco National Forest needs to show the effects of implementation of and utilization levels for the proposed plan in regard to the range land. Others stated that the Ochoco should include maps showing allotment AUMs and a discussion of the implementation process.

In addition, some felt that the Ochoco National Forest should manage all areas with 40-80% utilization levels and that the Forest should adhere to the AMP schedule Many felt all fences should be shown on allotment maps and cattle should be removed from the Forest by October 15, 1989.

Response:

Increases and reductions in permitted AUMs are generally handled through the allotment management planning (AMP) process. This is an allotment-specific planning process involving interdisciplinary team approval and directly involving the affected livestock permittee(s). Resource objectives are outlined, a grazing system designed, various range improvements planned, and a monitoring plan developed. This is all done through the NEPA process. A schedule for updating allotment management plans will be in Appendix A of the Final Plans.

Forage utilization standards are in Chapters 4 of the Final Plans and are separated for riparian areas and upland areas. Utilization standards are set to allow prescribed use of forage but prevent overuse that would degrade the forage resource or other resources. Utilization is measured in areas preferred by livestock because those are the areas where overuse and resultant resource damage would occur if livestock were not removed after prescribed use.

Utilization standards are incorporated into allotment management plans which become a part of the grazing permit. Compliances with the grazing permit is normally handled by close coordination between the permittee and Forest Officer, but if violations occur, action is taken against the permitee. Forage use by domestic livestock is a legitimate use of National Forest Lands as mandated in the Multiple Use Sustained Yield Act and will continue.

0500-05.1 Utilization Rates and AUM's

There were 21 letters, including one from the Columbia River Inter-Tribal Fish Commission, which had comments on the range of alternatives and AUM's. Some of the comments were that the Ochoco National Forest needs to show an adequate range of alternatives and range of AUMs in alternatives. Some requested information on the availability of range to livestock, as well as data on increase or decrease on an allotment-by-allotment basis. Some recommended that the Forest consider using sealed bids and enlarging alternatives for foraging.

The Columbia River Inter-Tribal Fish Commission stated that as the overstory is removed and the understory thinned, the forested rangelands will be found more frequently in fair and good forage condition class. The Commission questioned whether it is necessary to thin old growth timber stands to thinned tree farms just to provide grazing. CRITFC also noted that the Forest Service stated that range utilization standards will not exceed an average of 50% on meadows, and less than 30% on slopes and asked if this is a new standard or if it has been used before. They also question why, if it has been used before, the ranges are still in predominantly poor to fair condition.

Response:

The FEIS contains alternatives that show a range of AUMs from approximately 73,000 to 80,000. These estimates were based on timber harvest levels with resultant availability of transitory forage and on investments in structural and non-structured range improvements that make previously unusable areas available for forage use. Allotment-specific analyses were done to determine riparian improvement needs and estimates on what range improvements would be necessary to make those improvements. The Ochoco's analysis indicates it can meet the resource objectives of each alternative and produce the AUM outputs indicated. It was not considered necessary to arbitrarily reduce AUMs to show a broader range of outputs in AUMs.

Forage utilization standards have been changed in the Final Plan and EIS and are now based on whether range is in satisfactory or unsatisfactory condition and on management intensity levels. Old growth timber stands are not proposed to be thinned to improve forage condition classes under the stands. New plant community guides and forage condition guides are due to be published for the Ochoco National Forest in 1990.

@0500-06 Wild Horses

Fourteen letters commented on the issue of wild horses on rangeland.

Many thought that the Ochoco National Forest should not promote or allocate rangeland for the management of wild horses. Many felt that horses compete for rangeland with big game and that they are adversely affecting the environment. In addition, some stated that the cost of controlling wild horses is wasted funds, or that there are no "true" wild horses on the ONF or CRNG.

One respondent felt the holding pen at Big Summit is inadequate, that the horses were improperly fed straw, and that at least one had died while held there.

Response:

The Wild Horses and Burros Protection Act was passed by Congress in 1971. The law spells out very specific requirements for dealing with wild horses. The horses on the Ochoco National Forest meet the definition of wild horses in the 1971 Act, and as such are managed as required by the law. The Wild Horse Management Plan (Forest Plan, Appendix G) sets the herd size based on the carrying capacity of the area.

The corral used to hold wild horses between the time they are captured and the time they are transported to the wild horse facility near Burns, Oregon, is of pole construction and has been built with the safety of the horses in mind Horses are fed while being kept in the facility, and to the agency's knowledge, no horse has ever died while in the facility.

@0500-07 Decrease Grazing

One hundred twenty-eight public responses, including the one from the Oregon Department of Fish and Wildlife, commented on the current levels of grazing.

Some felt the Ochoco National Forest should consider reducing or maintaining current levels of grazing as a viable issue. Some felt that since the overgrazing of the 40's and 50's, the land has been trying to heal, and perhaps the Forest needs to justify the appropriateness of grazing by analyzing the adverse environmental impacts. These impacts need to be justified by NEPA standards, according to some.

Also, some felt that by reducing grazing, the Forest will improve water quality and quantity. They felt that, by reducing AUM's, taking fences down and phasing grazing out in 10-15 years, the Forest Service would improve riparian areas immensely.

The Oregon Department of Fish and Wildlife (ODFW) stated that they cannot support any increase in the Forest grazing program. ODFW stated that it is difficult to justify continuation of the Forest grazing program, considering the standards and guidelines in the proposed plan.

Response:

Domestic livestock grazing on the Ochoco National Forest is and has been an important part of the local grazing economy. It can also be a means for managing vegetation, e g. reduction of vegetative competition in tree plantations and fuels reduction to reduce wildfire hazard.

Overuse of many riparian areas and some upland sites has occurred in the past and is dealt with in the Final Plans by specific utilization standards (see Utilization Standards, Chapter 4, Section 2 and 3). Monitoring (Plans, Chapter 5) will assure utilization standards are being met.

AUM levels by alternatives in the FEIS vary due to the amount of investment in structural range improvements and the level of timber harvest. Some structural range improvements are designed to make forage available in areas where it is presently not available, due to distance from water sources or livestock distribution patterns. This can increase the overall level of AUM's available while still not exceeding utilization guidelines Other structural range improvements are designed to control livestock use, such as many riparian areas. This will allow forage use to acceptable levels and restrict any further use. This kind of intensive grazing management, when properly done, can increase the amount of AUM's available, while at the same time not rehabilitating degraded riparian areas

Timber harvest opens the tree canopy, allowing more sun to reach the forest floor, which may in some cases produce more forage. This potential increase in forage production is termed "transitory"

because it will be available for a period of time and then will decrease as the forest canopy closes. The level of timber harvest in an alternative determines how much transitory forage may be available over time. Transitory forage can increase the overall amount of AUM's potentially available.

Alternative C in the FEIS shows fewer AUM's than are presently permitted (FEIS, Chapter II). This is because Alternative C invests very little money in structural range improvements and has a reduced timber harvest level, which doesn't provide much transitory forage. Also, the emphasis of this alternative is for less grazing. All the other alternatives in the FEIS show either more AUM's than are presently permitted or the same level as at present due to investments in structural range improvements and timber harvest levels with resulting transitory forage production.

@0500-08 Stop Grazing on the Forest

There were 52 letters that supported stopping livestock grazing on the Ochoco National Forest.

Many felt that livestock grazing should not be permitted on the Forest, and that grazing is destructive to native plant species. Also, they felt that livestock use compacts the soil and reduces plant diversity. Some claim that a decrease in livestock grazing would reduce undesirable and exotic plants, upland degradation and noxious weed invasion. Therefore, many felt, there should be a no grazing alternative and/or a ten-year ban on livestock grazing.

Response:

The alternatives displayed in the FEIS have a range of AUM outputs. There is not, however, an alternative that eliminates livestock grazing from the Ochoco National Forest and Crooked River National Grassland, nor were there alternatives that eliminated other uses from the Forest or Grassland. Livestock grazing has been a traditional and important use of the Forest and Grassland, and is one of the uses specifically mentioned in the Multiple Use Act of 1960. When properly administered, livestock use can be compatible with other resource values and uses. The environmental consequences of grazing are outlined in Chapter 4 of the FEIS; livestock use of the Forest and Grassland contribute to the social and economic well being of local communities.

@0500-09 Prohibit Grazing in Certain Areas

Ten letters commented on grazing in sensitive areas.

The public respondents indicated that they feel the Forest Service should manage the Forest for the public, not just for livestock owners who use it for grazing. Some felt that the Forest Service should remove all livestock from the Forest. If this is not possible, some stated, then the Forest should keep cattle on grasslands, and keep cattle away from poor/fair condition areas for at least five years. Additionally, some respondents recommended removing cattle from wildlife winter range, riparian and shallow soil areas, and recreational areas.

Response:

The riparian prescription in the preferred Alternative I is designed to improve riparian areas. Individual allotment management plans will outline whether this will require livestock exclusion (short term or long term) or whether more intensive management systems and additional range improvements will be needed to meet the riparian improvement objectives.

Utilization standards in Chapter 4 of the Final Plans have utilization levels that vary depending on whether or not the area is in satisfactory condition. Areas that are not in satisfactory condition will have use levels adjusted down so they can recuperate. In some cases, there will be total exclusion for enough time to allow recuperation of areas in less than satisfactory condition

Almost all of the developed recreation sites on the Forest and Grassland are fenced to exclude livestock. Those that are not fenced will be if conflicts arise between recreationists and livestock.

Section 4(d) (4) (2) of the Wilderness Act states that grazing in wilderness areas, if established prior to designation of the area as wilderness, "shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture." It was stressed that there would be no curtailment of grazing permits or privileges in an area simply because it is designated as wilderness. As stated in Forest Service regulations (36 CFR 293.7), grazing in wildernesses ordinarily will be controlled under the general regulations governing grazing of livestock on National Forests. This includes the establishment of normal range allotments and allotment management plans. Under the direction of Preferred Alternative I, livestock grazing in Wilderness will continue.

Livestock use of big game winter range will be controlled in the individual allotment management plans. Monitoring of use will be done and spring and fall green-up will be reserved for big game in some cases. Grazing systems will be developed that leave adequate forage for wintering big game

Subject Area 550 Native/ Introduced Plants

@0550-01 Introduced Plants

Two comments were received from respondents who were concerned that the Forest Service plants introduced grass species for erosion control and some range improvement projects. It was felt that the introduced grass species grow tall and tough and are not good forage species.

Response:

Species of grass that are not native to the immediate area are sometimes used for erosion control purposes on road cut and fill slopes and other disturbed areas. The reasons are two-fold: some introduced species are easier to establish, and species that are not highly palatable are not grazed heavily. There is no more large scale range improvement seeding using non-native grass species planned on the Ochoco National Forest or Crooked River National Grassland.

The Forest conducts a program in cooperation with local extension agencies to control noxious weeds.

@0550-02 Management

One comment was received from a respondent who feels that while the Ochoco N.F. has not a single botanist on its staff and has had only one major botanical study conducted, it continues to destroy natural plant communities and to propose further destruction.

Response:

The Ochoco N.F. does not employ a botanist per se, but does employ on a shared basis a forest ecologist who is an expert on plant communities and species In addition, the Forest employs range conservationists, foresters, and wildlife biologists who are versed in basic plant taxonomy and botany. The Forest also consults with the Native Plant Society and other local interest groups in these matters. Chapter 4 of the FEIS analyzes the effects of various programs on plant communities.

0550-02.1 Management

One comment was received from a respondent who was concerned that grazing may often destroy beneficial and increasingly rare plants in favor of other species.

Response:

Proper grazing and management practices generally should not result in this. Some of the impacts of grazing in the Blue Mountains seen today are a result of practices that took place at the turn of the century. Chapter 4 of the FEIS analyzes the effects of grazing on sensitive plant species.

0550-02.2 Management

One comment was received from a respondent who felt that Forest Service management was increasing brush and juniper to the detriment of grass, which causes deer and antelope to go to private land to feed.

Response:

The alternatives in the FEIS provide different allocations of land for big game emphasis. Big game winter range is to be managed to provide a cover forage ratio for wildlife needs. This will not, however, change the fact that some traditional big game winter range is off the National Forest and Grassland; and under winter conditions, big game may end up on the private lands at lower elevations.

Subject Area 600 Research Natural Areas

@0600-01 Silver Creek

A letter was received from the Department of the Interior suggesting that it would be helpful to include a description of the features of proposed RNA's. The USDI also noted that Silver Creek RNA is a name already used by the BLM and that the RNA cell need may have already been met.

Response:

Appendix E of the DEIS had a description of each proposed RNA and the plant communities they represent. An establishment report is scheduled to be prepared for each Research Natural Area and will give additional detailed information on plant communities and features.

The BLM in Burns does have an existing RNA called Silver Creek RNA. It is on the same creek as the one proposed in the FEIS but further downstream. The two areas represent different "cells" (plant communities). The FEIS describes Silver Creek RNA in FEIS Chapter 3, and Forest Plan Chapter 4

@0600-02 Management

Twenty-nine comments were received from respondents who felt that RNA's should be open to ORV/ATV use and all forms of winter and summer recreation.

Response:

For some areas ORV/ATV use is incompatible, for example, Research Natural Areas (RNA's) are sites on which natural features and processes are preserved in as nearly an undisturbed state as possible for scientific and educational purposes. RNA's serve as a standard or baseline for comparison with areas influenced by man, as tracts for ecological and environmental study, and as reserves to protect typical as well as rare and endangered organisms. Motorized recreation is incompatible with these goals and objectives. Non-motorized recreation use is not generally prohibited but it is also not encouraged. If non-motorized recreation use increased to a level where it negatively affected the value of the area as a RNA, it could be restricted.

0600-02.1 Management

Forty-six comments were received from respondents who were not in favor of designating any new RNA's. Some felt they were totally unnecessary or were just on excuse for more mini-wildernesses. Others felt the ONF had proposed too many acres as RNA's.

Response:

Research Natural Areas are a nation-wide, multi-governmental agency program designed to preserve representative samples of a wide spectrum of ecosystems They are preserved in as nearly an undisturbed state as possible for scientific and educational purposes. They are also important for preserving genetic pools, biological diversity, and as baseline areas for monitoring Forest Plans. They are not tied to the Wilderness Act in any way and their purposes are different from those of Wilderness.

The size of RNA's can vary considerably. They can be only a few acres but the average minimum size is usually 300 acres. It all depends on how many acres of undisturbed site are available and how many acres it takes to encompass the target vegetation types. All the proposals in the DEIS were field inventoried and the boundaries recommended by Forest Service ecologists trained in the RNA program.

0600-02.2 Management

One comment was received stating that over-the-snow- machines should be specifically prohibited in the RNA's and that the only new trails that should be built in RNA's should be to conduct research.

Response:

Snowmobiles are not allowed in RNA's. These two concerns are covered in the management area prescriptions in FEIS Appendix D, and Chapters 4 of the Plans.

0600-02.3 Management

Two comments were received from respondents who felt that RNA's should be fenced to exclude livestock.

Response:

Livestock grazing is generally not allowed in RNA's unless it is part of the particular RNA's charter or research purpose. Therefore, RNA's will be fenced to exclude livestock where necessary. Exceptions would be those areas like the Island on the Grassland which is inaccessible to livestock due to topography, or as mentioned above.

0600-02.4 Management

A comment was received from one respondent stating that he was aware of another potential RNA that has not been designated.

Response:

The RNA program is dynamic. Other RNA's can be added at a later date. Forest ecologists will be made aware of this additional potential RNA and will review its chances for addition to the program if it meets the needs of an unfilled cell.

@0600-03 Plan Comments

Twenty-nine comments were received from respondents who were in favor of the RNA's as proposed in the Preferred Alternative of the DEIS.

Response:

The alternatives in the FEIS contain a range of acres proposed for RNA's including the proposal in the DEIS Preferred Alternative. Preferred Alternative I's proposal for RNA's is the same as Alternative E-Departure.

0600-03.1 Plan Comments

Three comments were received from respondents who felt there should be more RNA's. One respondent stated that additional RNA's, including The Island, should be added.

Response:

The idea behind the RNA program is to have one for each ecosystem or unique flora, fauna, or geology system represented on the Forest and Grassland. Forest Service ecologists as well as other scientists have inventoried the Ochoco N.F. and CRNG and identified the potential RNA's as outlined in the various alternatives in the FEIS. These are the areas that meet the needs of the RNA program. If other areas are found in the future that meet the need of a cell in the program they can be added.

0600-03.2 Plan Comments

A comment was received from one respondent stating that the plant community description for option A of Haystack Butte RNA proposal was left out in Appendix E of the DEIS.

Response:

The plant communities for option A were inadvertently left out. Major vegetation types for the Haystack Butte proposal are described in FEIS Chapter 3.

0600-03.3 Plan Comments

The Pacific Northwest Research Station noted that in the description for the Island, mention was made of 39 acres of CRNG and 160 acres of BLM land, and that this was the first place the EIS/Plan distinguished between the two acreages; elsewhere, it appeared that the 199 acres is all National Grassland.

Response:

The above statement is correct. We have attempted to clarify this in the FEIS. In the interim, the Island has also been designated as a national landmark by the Department of the Interior.

Subject Area 700 Timber Resource

@0700-01 Harvest Levels (General), Alternatives B,B+,C,E

There were 670 letters with comments on the timber harvest level. These comments ranged from "don't cut anything" through "maintain existing harvest levels" to "increase ASQ." There were comments requesting higher levels of old growth, visual resources, recreation, and firewood on the Forest.

Many of the comments related to the available timber base requesting either a decrease or an increase in the amount of land available for harvest.

Sixty-four respondents indicated a preference for the harvest level prescribed in a specific alternative

The Harney County Farm Bureau recommended that harvest should not be increased even temporarily unless such an increase could be sustained.

The Crook County Courthouse desires that the ONF maintain or increase the amount of land managed for timber.

Some commented that timber harvest levels above the established sustained yield are in conflict with NFMA regulations.

The Columbia River Inter-Tribal Fish Commission noted that the timber base has declined 14 percent from 1973 to 1982 and asks how harvest levels can be maintained.

Many comments related to the harvest level were from those who preferred a specific alternative. Fifty respondents preferred the harvest level of Alternative B or B-plus (a modification of "B" proposed by industry). Thirteen indicated a preference for the levels in Alternative C. One person Preferred Alternative E.

Response:

The analysis in the FEIS explored a range of timber harvest levels from 13.9 to 24.4 MMCF (82-144 MMBF). The major factors affecting this level are: land allocations (described as Management Areas), the existing timber inventory and expected growth rates. In the long run growth is much more important than inventory. Since the forest is a dynamic system, the scheduling model is also dynamic and considers both growth and mortality by timber types to take advantage of both existing inventory and potential growth to make the best use of forest potential.

The Forest cannot maintain its current harvest level and still provide the other values (wildlife, scenic value, recreation use, etc.) that many people expect from the forest. In fact, any timber harvest level has both positive and negative effects on other resources. The economy was an important issue but was weighed against other values in selecting a final alternative.

These comments were carefully considered in developing the new Alternative. Some changes that have taken place since the DEIS to help address these concerns are:

1. The application of uneven-aged management on about 100-120 thousand acres of the ONF. This will make areas more acceptable visually for recreationists and still provide a moderate level of timber production.
2. Increased emphasis on a quality product (larger pine). This reduces the frequency of regeneration cutting and leaves more big trees in the forest.
3. Addition of the Summit Trail Corridor and other management areas, which will be managed to maintain unique qualities.

4. Parts of Lookout Mountain and the Rock Creek/ Cottonwood Roadless area will be managed for recreation and wildlife. This may involve some timber harvesting to maintain forest health.

Other changes are described in the summary and elsewhere in the FEIS. These changes should help maintain a sustained timber supply, reduce some of the negative impacts, and provide an equitable balance of uses.

See Chapters 4 of the Plans for more information on Old Growth, Firewood, Recreation, etc. Also see response to board foot/cubic foot issue in the Record of Decision and FEIS Chapter 4.

The harvest level at Snow Mountain stays much more constant with uneven-aged management than it did with the alternatives displayed in the DEIS. The ONF is also working with the Malheur National Forest to develop a combined schedule for the Burns Area that will avoid abrupt changes in harvest levels in this area .

0700-01.1 Departure

Four letters were received with comments favoring departure harvest. The common feeling was that the lowest level of timber harvest could be increased with more intensive management.

There were 304 letters containing comments opposed to a departure alternative, favoring sustained yield instead. Some felt that departure is shortsighted and that future drastic reductions in the harvest would disrupt the economy. Others believed that departure harvest would result in an irretrievable loss of resources and cause severe ecological damage due to erosion.

Still others noted that departure violates NFMA regulations.

The Office of the State Economist pointed out that the short-term gain will not outweigh long-term costs of departure.

Response:

A new alternative, Alternative I (see FEIS Chapter 2), has been developed. The proposed harvest has been changed from the Departure in the DEIS to a sustained yield even-flow harvest schedule. Reasons for changing were based on response to the DEIS, which favored the long term good of the forest and local community stability. With increased intensity of management or by decreasing the level of departure, there is some opportunity to make a departure more acceptable. However, a sustained yield even-flow timber harvest schedule was selected based on public input and a further review of the consequences. The ONF has explored ways of maintaining the harvest closer to the present level and will use a gradual transition within the first decade of the plan to reduce ASQ to the planned level of 19.3 MMCF (115 MMBF). See FEIS Chapters 2 and 4 for further discussion. The major negative impact of this decision will be to reduce the dollar returns to the U.S. treasury in the first few decades.

Alternative I calls for even-flow for the ONF on a decade by decade basis. There will be fluctuations in timber sale from year to year based on budget and economic conditions. Harvest by district will be determined administratively considering biological, administrative, and social impacts. Sustained yield by species is not intended nor is it practical. Harvest levels will consider local economies as discussed under the reply to the ponderosa pine issue in this appendix, but timber condition and Forest Health (Chapter 4 of Forest Plan) will be the primary consideration in determining the species mix.

@0700-02 Species Mix

0700-02.1 Ponderosa Pine Management

Many respondents were concerned about the volume of ponderosa pine sold in the timber sale program. There were also concerns for management of other species.

The inherent value of ponderosa pine was one such concern. Enhanced harvest and regeneration of pine were desired by many respondents. There was also concern regarding substitution for ponderosa pine by inferior species. In addition, some respondents brought up the need for studies as to replacement of pine stands after harvest by juniper and sagebrush

The Oregon State Forester comments that a steady supply of ponderosa is critical to the economy of central Oregon and is opposed to any proposition of large changes in the species mix, especially a reduction in ponderosa pine.

A related concern is the display of outputs in terms of cubic feet instead of board feet. The discrepancy between the Resource Protection Act document, which displays timber outputs in board feet, and the DEIS, which uses cubic feet, is questioned.

Response:

The Ochoco considered a range of ponderosa pine harvest levels in the first decade from 65 MMBF in Alternative C to 95 MMBF in Alternative B-Modified. The harvest level of ponderosa pine is a critical item to the local economy and also is currently the major contributor to forest receipts from timber sales. Short term (next 5 decades) harvest level of pine depends on land allocation, harvest schedule, and existing volume. The existing volume of pine is based on the 1982 inventory adjusted for harvesting to the end of FY88. Sampling error was less than five percent for the inventory. See FEIS Chapter 3 for volume by species group. Chapter 4 of the Draft Plan shows a reduction of 14 percent in total volume and 18 percent in pine volume between 1973 and 1982. The long term level (beyond five decades) depends mostly on management strategy. The existing volume does not allow a continued sale of historical levels (FEIS Chapters 2 and 4) of ponderosa pine. The addition of uneven-aged management helps to even out the sale of ponderosa pine over the next five decades but at a level below that of the previous decade. To maintain future harvest levels of ponderosa pine requires the harvest of stands with other species now so that they can be regenerated with new stands of pine. The Forest strategy is to manage future stands with a larger component of pine than occurs on most existing stands, with the intent of creating a species mix closer to what was here before fire protection (prior to 1930). This is particularly true in the mixed conifer types. There is no plan to remove pine overstory when the only understory is Douglas-fir or white fir. See Standard and Guidelines in Chapter 4 of Plan - Timber for specific direction. Reforestation efforts have been very successful and encroachment of juniper and sage brush has not been a problem. See FEIS Chapter 2 for proposed harvest level in ponderosa pine by decade.

For the Plan, the volume growth of trees and annual harvest level has been calculated in cubic feet. This is a measure of sound wood volume in a tree.

Much confusion is created when attempting to convert cubic feet to board feet, or when estimating long term growth in terms of board feet. Board feet, when referring to standing trees, is not a measurement but an estimate of an end product. There are several rules for doing this and different rules can result in considerably different estimates. In addition there can be large differences in estimated volume of a tree based on the length of logs it is bucked into. There is also considerable difference in the ratio of sound wood to estimated board foot volume for different size trees. For these and other reasons most research is done in cubic feet as are all yield tables for forest plans. For these reasons, cubic feet has been used to control or project timber harvest levels. Harvest can drop on a board foot basis while remaining stable on a cubic foot basis. An estimate of board foot volume is shown for the first decade only.

The inventory reduction of 14 percent (shown in FEIS Appendix E) is what was expected from the previous plan. The standing inventory in expected to decrease for the next five to ten decades as overmature stands are replaced by younger stands. This will be accompanied by an increase in growth until an equilibrium is reached. See "Timber" in FEIS Chapter 4 for more discussion of this.

0700-02.2 Genetic Diversity

Six respondents expressed the need to maintain old growth as a reservoir for genetic diversity.

Response:

Diversity is a major concern of the forest. There were several new management areas added since the draft to recognize more unique situations on the forest. The direction for management on the general forest has been changed to favor more uneven-aged management and longer rotations. Even-aged harvest units will be limited in size and distribution, resulting in greater diversity in stand age and structure than proposed in the DEIS. There are also about 60,000 acres in riparian and recreation areas that will have stands with extended rotation (150 to 300 years), and about 85,000 acres with no timber harvesting in designated old growth, RNA's, wilderness, and roadless areas. See Chapter 4 of the Forest Plan for exact acres and description of each area. These areas serve as genetic reservoirs.

The Forest has about 2,800 trees in the tree improvement program. Each major tree species is represented in this program. Progeny from these trees have been planted in seed orchards and evaluation plantations. This is intended to improve the genetic base as well as preserve a wide genetic base for future plantations. There is a significant number of natural trees in regenerated areas to further expand the genetic base. The genetic base on future timber stands will be at least as diverse as existing stands and in many areas more diverse.

@0700-03 Timber/Livestock Issues

Twenty-four letters were received with comments concerning the relationship between timber and grazing.

Some felt that both timber and grazing should be deemphasized in the interests of wildlife, recreation and scenic values. Others were of the opinion that proper grazing and timber practices were compatible and acceptable uses of the forest. Still others felt that grazing and timber should be dealt with separately (e.g. timber should be favored over grazing, or slash if harvest prohibits cattle use).

There were also several comments urging the seeding of domestic grasses after harvest to control erosion and provide grazing.

Response:

There is a generally favorable relationship between timber harvesting and grazing as any removal of trees tends to increase forage production. Generally it was conflicts with other values such as water quality, old growth, and recreation experience that limited timber harvesting or grazing. The forest attempted to create a proper balance among uses as described in Chapter 4 of the Forest Plan. Emphasis has been given to water quality (enhance prescription used for all riparian areas) and unique scenic values, such as Stein's Pillar, in Alternative I. Areas available for timber production and grazing will be managed as intensively as is economically feasible.

Areas of conflict between timber and grazing are in slash disposal, grass seeding, and protection. See the Timber section of FEIS Chapter 4 for more discussion Slash disposal guidelines were developed to provide protection from wildfires, and provide down woody material to insure future productivity. See Chapter 4, Forest Plan, Standards and Guidelines for Woody Biomass for details. This should allow cattle access to most harvest areas but there will be some slash and large down material left on the site Grass seeding will generally not be done except for erosion control as it competes with tree seedlings and prevents the return of native species. Tree seedlings will be protected from livestock where necessary by temporary exclusion or individual tree barriers

@0700-04 Data Analysis

Seven letters, including the responses from the Oregon State Forester, the Oregon Director of Economic Development, and the Columbia River Inter-Tribal Fish Commission, had comments dealing with yield tables as used in the DEIS.

There were some questions as to the reliability of current inventories and harvest levels compared to levels on previous tables.

Some respondents felt that the plans for genetic gains are not practical on low sites on the Ochoco National Forest.

Growth rates of mature pine vs. second growth were also questioned. The CRITFC felt that the drop in potential yields is due mostly to a change in the managed yield tables. They also stated that the South-Central Oregon/Northern California variant prognosis model may have been more appropriate to reassess the accuracy of the Ochoco managed yield tables for stands similar to those on the Deschutes.

The Oregon Director of Economic Development does not support reducing the acreage available for full yield management.

Response:

Yield tables were developed as described in Appendix B, with more detail available in "Existing and Managed Yield Tables for the Ochoco N.F.," an unpublished document available at the Ochoco National Forest Supervisor's Office in Planning Records. The 1982 inventory was done to an accuracy standard of more than ninty-five percent. Volumes for each model component were projected forward to 1994 (midpoint of first decade) and acres by model component have been adjusted for timber sold since the inventory. This inventory was within one percent of the projected inventory, based on 1972 inventory, with adjustments for growth and cutting. The ONF has a very high degree of confidence in the inventory volume and the existing yield tables which were developed from inventory information. The inventory data was also used to calibrate the growth model used for developing managed yields. The Blue Mountain variant was used to develop the basic yield tables as SORNEC was not available at that time. Uneven-aged yield tables were developed later and SORNEC was used. Some standard tables were compared between the two variants and there was little net difference so basic tables were not redone. Since growth rates for yield tables are based on existing stands, the effects of mortality from insects and disease, and growth effects of compaction are included in the tables, but the final impact of each cannot be separated.

These yield tables show less net growth than does research or the previous yield tables. That is because these are Forest specific yield tables that show the best estimate of what can actually be produced on given sites with technologies available. This makes allowance for islands of nonproductive land within timber stands, trees left for snags, and local site productivity. Research that was done on Pringle Falls and in the Cascades was done on higher or better sites and uniform stands where there were no inclusions of low or nonforest sites. Consequently research yields are higher than what would be expected on the average site on the Ochoco N.F. A common set of yield tables developed for the Blue Mtn. Forests was used for the 1980 Plan. The ONF is on the drier end of this group so sites and expected yields are lower than the average for the four Forests Informal comparison between existing stands and projected growth was compared and results were similar. A separate inventory of managed stands is planned with the next inventory which should give a better basis to compare and adjust yields. A sensitivity analysis has been completed since the draft was prepared. In that analysis, all managed yields were increased by 20 percent, and this resulted in less than a two percent increase in ASQ. This shows that existing volume and S&G, such as watershed constraints, are the primary controlling factors and a major change in managed yield tables have little effect on ASQ. Growth on immature stands (Forest Plan Appendix G) is less than mature stands at present because most of the immature trees are not yet merchantable but projected growth of immature stands is several times that of the mature stand. See Table 4-3 (Annual Growth by Age and Timber Type) for more details.

Genetics gain is incorporated into the managed yield tables that call for planting (note: planting is not planned on low site pine types). The genetics program is already in place and forest has been using plantings from selected trees for several years so this is not a new level of investment to be made. The Tree Improvement Plan is available at the Supervisor's office for more information.

0700-04.1 Data and Table Errors

Seven respondents pointed out inaccuracies, inadequacies, or discrepancies in the documents. Among the respondents were the Environmental Protection Agency, the Oregon Department of Fish and Wildlife, and the Oregon State Forester.

The following errors were commented on:

Table 2-8 of the DEIS shows incorrect value for current ASQ.

Graphs on pages 35 and 39 do not agree.

Table 2-8 should show volume for each decade.

Table 3-25 on Page 89 of DEIS is in error.

Table 3-25 of DEIS does not agree with Table 4-1 of Proposed Plan.

Sale program data incorrect in appendix A of Proposed Plan.

Table S-2 and harvest level of 89 MMBF for E-Departure in year 2030 is in error.

Response:

Tables have been corrected in the final documents. The graph on Page 35 was changed so MMBF is no longer shown. The long-term Sustained Yield Capacity was not calculated in board feet, nor can it be calculated with the current data in the model The Crooked River Grassland acres are no longer included in these tables which should also improve readability. Table 2-8 did not show volume by decade as it would have complicated the table. This information by selected decades is available on Table S-8 of the FEIS Summary. A new sale schedule is shown in Appendix A of the Forest Plan. Contact the Supervisor's or District office for more details on specific timber sales.

Table S-2 (now Table S-8) has been revised to display the new alternatives and Alternative I shows a much higher harvest level in the fifth decade than did alternative E-Departure. This change is due mostly to maintaining an even-flow and the emphasis on producing larger trees in Alternative I.

@0700-05 Reforestation

Thirty-seven letters contained comments on reforestation, among them the responses from CRITFC, ODFW, the Oregon State Forester, and Crook County.

Most comments, including those of Crook County, favored placing a growing emphasis on reforestation in the future. Some respondents recommended planting species most adaptable to a particular area and increased research on super trees.

Others suggested mechanical site preparation to favor naturals. A preference was indicated for auger planting over slit planting, and for protecting snags from fire during site preparation. There were also concerns that burned areas are not being reforested

While many respondents have been impressed by reforestation efforts, some felt that recent favorable growing conditions have made silviculturists overly optimistic. Others were opposed to intensive practices such as fertilization or spraying. Concerns about nutrient cycles and gene pool reserve were not adequately addressed for some respondents.

To some, planting and maintaining tree plantations did not seem economically justified.

The Oregon State Forester noted that the stocking standard of 50 to 75 trees is lower than State of Oregon standards.

ODFW recommends that standards for reforestation in big game management areas should be driven by cover needs rather than harvest needs.

CRITFC stated that the certification process appears to take six years instead of the mandatory five (site preparation within two years of harvest; planting within one year after site preparation; certification three years after planting). The council also questioned the status of a stand if it cannot be certified as revegetated.

Response:

Most of these concerns are covered in the Forest Wide Standards and Guidelines in Chapter 4 of the Plan for Timber, Diversity, and Forest Residue. Site

specific decisions on planting method, spacing, planting tools, etc. ,are made to comply with the Standards and Guidelines and objectives for each Management Area. These are project level decisions. Some projects such as fertilization, spraying, pruning, etc. will require additional environmental analysis and documentation. The minimum stocking standard was designed to meet the requirements of NFMA Sec. 4. This is not the recommended level that is normally obtained. It should also be noted that this standard is for trees 4.5 feet tall, not two-year-old seedlings as is the case with State of Oregon's requirements. Planting may be done if stocking exceeds the minimum level and if the expense is justified to meet the management objective for a particular Management Area. The planting program on the ONF has been very successful with an average survival after three years of about seventy percent. The areas requiring replanting have been less than five percent. Survival is generally better in clearcuts than in areas with residual overstory.

@0700-06 Below Cost Sales

Three letters, including one from the Columbia River Inter-Tribal Fish Commission, had comments regarding deficit or below cost timber sales. All the respondents were opposed to deficit sales. It was urged that every timber sale make a profit, or at the very least recover costs.

CRITFC voiced concerns that the Forest Service will respond to the below-cost sale controversy by shortchanging mitigation needs to artificially improve its timber sale balance sheet. The council also noted that high-value ponderosa pine old growth has kept most timber sales out of the deficit category, but questions sales in the next decade or two if the old growth is removed.

Response:

The current timber sale program has a positive return, and is expected to in the future. See Table 3-30 of the FEIS. Also, the Timber Sale Program Information System (TSPIRS) reports are available at the Forest Supervisor's office It is not the intent of this Plan or Forest Regulations that all sales produce a net return to the government. Examples where sales may be deficit, or below cost, are: beetle killed lodgepole, where remaining merchantable trees are removed and slash is disposed of, and the area is reforested; or sales in campgrounds to remove hazard trees. In each case the sale may be deficit but it is the least-cost way of meeting the management objectives for an area. Economics were considered in developing harvest schedule and selecting intensity of management. It was also considered in determining boundaries of management areas such as Rock Creek/Cottonwood Unroaded and Helicopter.

@0700-07 Land Suitability/ Allocations

Nineteen comments dealt with management and identification of land unsuitable for timber production. Most had questions concerning methods and guidelines used to classify land as unsuitable. A map and analysis of unsuitable lands was not included in the DEIS, and some desired one.

There were also questions regarding present management of unsuitable land. Some, including the Columbia River Inter-Tribal Fish Commission, questioned the amount of land classified as unsuitable -- only 0.47 percent of the forest.

One reviewer suggested that timber land which becomes unsuitable be traded for lands reserved for recreation.

Response:

The NFMA provides direction for identifying lands to be classed as unsuitable for timber production. The reasons for being classed unsuitable are described in Chapter 3 of the FEIS. No timber harvesting is planned on unsuitable land. Unsuitable land was identified on areas as small as two and one half acres if they could be identified on aerial photos. These were ground sampled and other areas identified based on field experience and soil inventory.

About 11,130 acres have been identified as unsuitable because of regeneration difficulty. Much of the most arid land has been classified as non-forest.

The reforestation first-time success has been greater than 90 percent, and the lower sites have not been the most difficult to reforest. There are several examples of successful plantations on burns on low sites. So there is very high probability that lands identified as suitable can be reforested within five years.

The economics of timber harvesting and the ability to reforest is discussed under timber suitability in Chapter 4 of the FEIS. The Ochoco has one of the most economically efficient timber programs in the nation, based on recent Timber Sale Reporting System reports. Thus, while the cost of timber management and harvesting was not a limitation on timber harvest throughout most of the forest, it was a major consideration in developing management direction for the unroaded areas.

0700-07.1 Allocations

Four letters, including those from ODFW, the Oregon State Economist, and the Director of Economic Development, had comments concerning acres available for timber harvest and in full productivity.

The Oregon Department of Fish and Wildlife pointed out that the proposed plan allocated 547,072 acres to General Forest, which is 52,000 more than the suitable timber base.

Other reviewers, including the Oregon State Economist and the Director for Economic Development, question the implications of the reduction in land in full productivity from 423,000 to 262,500 acres.

Response:

There is some confusion concerning acres of general forest. When this refers to land allocation as in Table 2-2 in DEIS, it refers to gross acres which include nonforest land such as meadows, water, etc. within the general allocation Other places, such as DEIS Table S-2, "Lands with Timber Yield Reduction," refer to suitable timber acres only. This is made more clear in the new Plan which displays both gross acres in a management area and the net acres of forest land.

The acres in full productivity are based on land allocations and the management intensity from the selected FORPLAN run. All lands allocated to General Forest are available for full productivity, but there are a variety of yield tables and related cultural practices available. A maximum economic return function (See Appendix B for more explanation) was used for Alternative I and also the Plan. This selects the combination of treatments that is most cost effective such as some natural regeneration and not thinning every available acre. This results in about one MMCF (4 to 5 MMBF) less ASQ than would a maximum timber function.

0700-07.2 Lowsite Pine Lands

Two letters were received with comments concerning management of low site pine lands. The Columbia River Inter-Tribal Fish Commission questioned the Ochoco plan to harvest on sites producing 20 cubic feet or less, pointing out that other forests prohibit this practice.

Others requested a map of unsuitable areas and a summary by district of plant community types for pine stands.

Response:

There are about 21,000 acres typed as low site pine and about 12,000 of these are classified as suitable. (Note: NFMA does not include productivity as a criteria for suitability.) These are generally nearly flat ground with good access and high value pine species. The management as shown in the Standards and Guidelines will insure continued productivity and a positive economic return. Mature trees will only be removed where there is existing regeneration. Type mapping was done at a four-inch-to-the-mile scale and producing maps at this scale is not practical. Maps are available at forest offices. See FEIS Chapter 3 for acres of low site land by district. The ONF does not have a summary of land class by community type. Also see response to suitability.

@0700-08 Harvest Methods

Fourteen letters had comments concerning logging systems. Most respondents were concerned about environmental impacts and suggested helicopter logging, balloon logging, or the use of large rubber-tired skidders to reduce compaction. Some recommended that no logging occur in riparian zones or near trails.

Others felt that the timber companies should do a better job of cleanup after harvest operations.

Response:

Providing areas for specific logging systems was not identified as a specific concern. However, the logging system does play an important part in many of the other issues such as riparian areas, recreation, and protection of the soil and water resource. Generally, the selection of the logging system is a project-level decision based on the Standards and Guidelines for the specific Management Area. The Plan has been revised since the Draft Plan to include Management Areas that emphasize logging systems that require little or no roading such as helicopter or skyline logging. See Chapter 4 of the Plan for specific direction for each management area.

Timber purchasers are required to remove all equipment and debris from any site of operations. Disposal of woody debris from logging is disposed of based on contract requirements. These requirements vary from site to site depending upon such factors as fire hazard, disposal costs, and the need for down woody material for soil productivity or wildlife needs.

See responses to biological diversity and forest residues comments for more information.

@0700-09 Thinning Practices

There were 18 letters with comments on silvicultural practices, among them letters from the Oregon Department of Fish and Wildlife, the Columbia River Inter-Tribal Fish Commission, and Grant County.

Many respondents, including Grant County, felt that thinning was not sufficiently emphasized. They believe that thinning will increase the growth rate and that thinning along roads will decrease vehicle/big game accidents.

Others believe that thinning defeats its own purpose and that unthinned islands should be left to provide cover. Some felt that a percentage of each sale should be left in an unaltered state.

Some felt that intensive management and new technologies should be utilized to raise the harvest level to the maximum, while others believe the Ochoco is a fragile desert unsuited to tree farming.

ODFW suggests that, under Standards and Guidelines, a screen of understory vegetation should be left along the edge of natural openings and along roads.

CRITFC asks how much projected yield depends on precommercial thinning.

Response:

Chapter 4 of the Forest Plan describes management activities appropriate to each management area. All cost-effective silviculture treatments are planned that are compatible with a specific area's management objectives There is a section in Chapter 4 - Forest Health that describes appropriate action to be taken in each Management Area to protect it from insect and disease. This recognizes that high levels of damage are acceptable in some areas such as old growth. The selection of specific treatments will be based on project level analyses along with direction from the Plan and may also include an Environmental Analysis. See Chapter 4 of the Forest Plan for planned treatment by decade.

@0700-10 Even- and Uneven-Aged Management

Five-hundred thirty-four letters were received with comments regarding harvest methods, particularly the impacts of clearcutting on harvest levels and other resources.

Some respondents, including Crook County, were opposed to clearcutting and felt that selective logging would result in a healthier forest ecosystem. Soil integrity and wildlife habitat were mentioned as possibly being harmed by even-aged management.

Others were opposed to clearcutting for aesthetic reasons, or because they felt recreation suffers from clearcutting practices.

Some respondents favored clearcutting for diseased or defective trees, or for a certain species of tree such as white fir, but not ponderosa pine.

Still others favored clearcutting everywhere, expressing a desire to see the forest shift toward even-aged management.

The Oregon State Forester stated that frequency of entry is greater with selective logging and that this may contribute to more soil damage than clearcutting, depending on soil characteristics.

Response:

The Forest has reviewed the policy on even-aged management including clearcutting, and has provided standards and guidelines to encourage uneven-aged management where appropriate (see FEIS Chapter 4, Environmental Impacts, FEIS Appendix D, Standards and Guidelines, and FEIS Appendix E, Selection of Harvest Cutting Methods). New yield tables were also developed that include more intensive uneven-aged management than was used in the draft. The planned acres of clearcutting per decade have been reduced from 14,400 in E-dep alternative to 8,700 in Alternative I, and no clearcutting is planned in pine types unless no other alternative exists due to the presence of mistletoe or disease.

There are many situations where clearcutting or some form of even-aged management is the only reasonable way to continue to grow timber. Some of these are areas with root rots, dwarf mistletoe, excessive fuel buildups and areas with white fir as the major species The on-site decision of cutting method will be made by qualified district personnel based on the Standards and Guidelines in Chapter 4 of the Plan (see Timber and Forest Health). Clearcutting and other types of even-aged management are acceptable cutting methods under NFMA. See Appendix E for discussion of selection of harvest methods. For impacts of harvesting on a specific resource, see Chapter 4 of FEIS.

A further review was done of management in existing roadless areas, and some areas will have timber harvesting with little or no roading and uneven-aged management will be emphasized where appropriate. See specific direction in Chapter 4 of the Plan. Harvest unit size and shape will meet direction in Chapter 4.

There is very little intermingling of National Forest land with other federal agencies so harvesting policy on the ONF should not have major impacts on other agencies.

@0700-11 Salvage Program

Forty-five letters were received with comments related to the timber salvage program. Among the respondents commenting on this subject were the Oregon State Forester, Crook County Courthouse, Prineville City Council, CRITFC, and ODFW.

CRITFC stated that salvage should be counted toward satisfying long-term sustained yield (LTSY) volume.

Crook County Courthouse recommended development of a creditable system for salvage of bug-killed or blown-down trees.

Prineville City Council suggested management of the salvage program for maximum timber production.

The Oregon State Forester urged aggressive harvest of scattered ponderosa pine.

ODFW noted that impacts of salvage are extensive on snag levels and large woody debris.

Other reviewers requested more firewood be made available through the salvage program. Some recommended small sales as a more efficient method of salvage. Still others felt that salvage should be limited to catastrophic events.

Response:

Salvage is part of the timber resource issue. The salvage program can conflict with snag needs (Chapter 4 FEIS). All material not required for snags is generally available for harvest. See Forest Standards and Guidelines under the Timber and the Wildlife sections for specific direction. The size of sale and whether it should be used for firewood or sawlogs is an administrative decision to be made on a site-specific basis. See appropriate District Ranger for specific concerns.

@0700-12 Multiple Use Management

0700-12.1 Timber and Recreation

Six individuals expressed concerns about conflicts between timber harvest levels or practices and recreation. Most respondents felt that recreation and harvest are compatible, but that harvest should be considered more important than recreation. Some felt that scenic qualities can be enhanced by proper harvest procedures.

There was apparently some confusion over acres available for timber harvest. Some commented that 780,000 acres was not acceptable.

Response:

Alternative I was designed to balance uses between timber harvest level and recreation use as directed in the Multiple Use Act and NFMA. A change to more selective cutting and large diameter stands at final harvest are two changes that were made in response to public comment to help resolve this issue.

There were not 780,000 acres planned for timber harvesting in the draft plan. The general forest terminology may have been confusing as the management area "General Forest" included both timber and non-timber lands on both the ONF and the Crooked River Grasslands. In most instances the acres are gross acres (timber and non-timber). The planned distribution of timber land is displayed in Chapter 4 of the Proposed Forest Plan which shows a total of 495,006 acres available for some timber harvesting and 314,738 acres in general forest. See Chapter 4 of the Plan, for acres planned for timber harvesting in the proposed action.

0700-12.2 Timber and Wildlife

There were nine letters with comments concerning possible conflicts between timber management and wildlife.

Opinions on this subject were unusually polarized. Some respondents felt that logging destroys wildlife habitat, that all old-growth harvest should be stopped, and snags should be maintained at the 100 percent level

Others expressed a desire for less big-game allocation. They felt that harvest enhances the availability of forage for deer and elk, and that roadless areas should all be open to harvest. These respondents felt that protected old growth stands should not exceed three percent of the total, or that a certain amount of old growth needs to be harvested to sustain harvest levels.

Response:

The land allocations in the Forest Plan were developed according to NFMA standards and multiple use and sustained yield principles. The location and total acres in big game emphasis has also been changed as a result of comments and coordination with the State Fish and Game Department. A mix of timber and wildlife emphases have been provided to maximize net public benefit for both timber harvest and wildlife. Specific management goals, objectives, standards and guidelines can be found in Chapter 4 of the Forest Plan.

The NFMA (Sec. 6, g) requires the forest to "provide for diversity of plant and animal communities..." The preservation of old growth is intended to help meet this requirement. Areas have been designated as old growth to meet the needs of old growth

dependent species. Attempts have been made to limit the impact on timber harvest levels by designating old growth which occurs in areas which would have high levels resource protection in any case instead of designating areas that could be in General Forest. The Old Growth designated acreage in each alternative is shown in FEIS Table 2-8.

Areas planned for old growth have also been reviewed and are described in Chapter 4 of the Plan and areas are shown on map. The relationship between the timber program and wildlife is very complex. See Chapter 4 of the FEIS for effects of timber program on wildlife.

@0700-13 Timber Production

0700-13.1 Rotation Length

There were nine comments concerning rotation length and the methods used to decide when to harvest a tree or stand.

Some feel the forest is a crop, to be harvested when ready. For some this meant "mature or diseased." For others, a more tangible figure, such as 12 inches in diameter, was the indicator to cut.

Response:

There is not a common agreement as to when a tree or stand is "mature." A definition of maturity in "Terminology of Forest Science, Technology, Practice, & Products" is: "The stage at which a tree or stand best fulfills the purpose for which it was maintained." NFMA limits final harvest to stands that have culminated in average annual growth This usually occurs on the Ochoco National Forest after a stand age of 70 years. It was recognized that there is a local demand for larger material, and further analysis was done to compare economics, timber yields and effects on other resources if longer rotations were used (see appendix B, sections 2 and 7). In Alternative I, the General Forest Management Area provides for an average merchantable stand size of 18" DBH before final harvest for ponderosa pine stands rather than the minimum rotation age from culmination of mean annual increment which could occur on trees as small as 12" DBH. The exceptions to this are when earlier harvesting is needed to meet some resource need other than timber, or where stands are threatened by insect or disease damage.

Stands with trees smaller than 18 inches DBH may be harvested during commercial thinnings. On the Ochoco National Forest, stands which are not thinned are vulnerable to insect attack because individual trees in a fully stocked stand grow very slowly. Thinning redistributes the growth potential of the site so the remaining trees grow faster and are generally healthier.

With uneven-aged management, both regeneration cutting and thinning take place on a stand during the same harvest operation.

0700-13.1 Growth

Eight letters were received with comments on growth rates. Most felt that harvest should not exceed growth but should remain at a level slightly less than the growth rate.

Response:

The current growth on all timber lands is 14.6 MMCF or 79.7 MMBF from Appendix E of the Proposed Plan. This will change in the future depending on alternative as shown on Table 2-8 of the FEIS. Growth in cubic feet is displayed here by alternative for year 2030 and the Long Term Sustained Yield Capacity. Similar values are shown for Alternative I. The FORPLAN model is used as a tool to help schedule harvest so that the maximum level of harvest can be maintained within limits set by the standards and guidelines. As a general rule, the younger the trees in a stand, the faster the growth, so as volume accumulates on a stand the rate of growth decreases. A mature stand therefore will have high

volume but little growth, and a very young stand will a have high rate of growth but little volume. Part of the scheduling problem in managing the forest is to bring these into a proper balance. On the Ochoco N.F. growth rates will increase through time as mature trees are replaced with younger trees. See Chapter 4, of the FEIS. During this time the inventory will decrease.

0700-13.2 Fiber vs. Sawlogs

Ten letters were received with comments concerning fiber or quality sawlogs.

Some reviewers felt that rotation length is too short. They believe that increasing rotation length will enhance the quality of timber products.

Others request that the Ochoco National Forest be managed for mature ponderosa pine only.

Still others want the value evaluated by species rather than by total wood fiber.

Response:

The analysis process that was used to determine harvest levels and product size considered size and species (ponderosa pine and others). Alternative I had an objective of maximizing PNV while meeting management objectives. Longer rotations were considered and are required in many management areas, but to require 200 year or longer rotation ages would result in a 40 to 50 percent reduction in harvest level. As a result of responses to the draft, the objective on General Forest has been revised to include an emphasis on the production of quality pine on General Forest. See Standards and Guidelines for General Forest in Chapter 4 of the Plan. This results in longer rotations and larger trees at final harvest. Pine and other seral species will be emphasized on most of the Management Areas where timber harvesting is permitted. Mixed conifer along with all other sites will be managed as intensively as is economically practical.

@0700-14 Specifics

0700-14.1 Catastrophic Conditions

CRITFC asked what constitutes a catastrophic condition and how the ONF will compensate if a high level of catastrophic damage occurs each decade.

Response:

A catastrophic condition is when the mortality or damage in a decade exceeds the level planned. It is possible, but not likely, that the salvage level would be near but not over ten percent for several decades. Whenever a catastrophic event occurs that has the potential of effecting future harvest levels, then new FORPLAN runs would be made and a new harvest schedule developed. It is also planned to reinventory at ten-year intervals and recalculate the harvest schedule based on current information. This would ensure corrections for changes in tree mortality or damage.

0700-14.2 Idlewood Burn

There was one comment about the growth rate of an area reforested on the Malheur National Forest in the late 1940's or early 1950's. The area was the Idlewood burn, and the respondent stated that the trees are now only eight or nine inches in diameter.

Response:

Your observation of eight to nine inch trees in 50 years is similar to the managed yield table which predicts nine to 10 inch trees in 50 years, and 18 inch trees in 120 years.

0700-14.3 Sold Sales

One respondent mentioned commitments to timber sales made prior to the DEIS that are incompatible with the Land Management Plan. The person asked

for direction in the EIS addressing mitigation of prior commitments.

Response:

The Plan does not change history. Each situation will be reviewed based on direction for each Management Area (M.A.). If the existing condition is not compatible with goals for a M.A, than corrective action may be taken depending on feasibility and funding.

@0700-15 Timber Economics

0700-15.1 Budget

Fourteen letters were received which had comments concerning the budgeting and financing of forest operations.

Some respondents stated that the ONF budget is too commodity-oriented, and that the allowable cut was set by Congress based on economic and political pressures.

Others were opposed to public-subsidized harvest operations and felt that the timber industry should bear the full cost of logging, or that the ONF should charge more for timber sales.

The Columbia River Inter-Tribal Fish Commission asked if the forest reduced prices as an incentive for harvesting old growth.

Some respondents expressed the feeling that the forest should favor local remanufactures when allocating timber sales, or that cutting circles should be established.

Other concerns included: the desire for set-price salvage sales without bidding, more coordination between the Forest Service and BLM, and the need for more qualified personnel to mark and lay out timber sales.

Response:

The Forest, through the Regional and Washington Offices, provides information to Congress as to the harvest potential from the Forest based on the current Forest Plan, but decisions made in this plan do not constrain or restrict Congress' ability to set budget or outputs Congress may vary harvest levels from year to year but historically this has been based on the planned harvest level. Congress is influenced by many factors in making its decision, as is the ONF in developing its proposed action. Congress also establishes the laws governing sale of timber and other products so, this is not an issue to be decided by this FEIS.

The Forest attempts to hire well qualified people and see that they have proper training and supervision to do their jobs, but the regulations governing these decisions are outside the scope of this Plan.

All timber is appraised using standard appraisal procedures (see Forest Service Manual 2430, available at Forest Offices). No arbitrary adjustments are made. However, the appraisal process does consider logging and other costs, so areas with high costs (such as cable logging or very small volumes) will have lower stumpage than a typical sale.

0700-15.2 Demand and Supply

Twelve letters were received with comments dealing with demand and supply of timber. The letter from the Oregon State Forester questioned the statements in the draft that claim local supply affects stumpage price. He also feels that more analysis of assumptions used in demand curves (Appendix B) is needed.

The Oregon State Economic Development Department disagrees with the prediction that demand will drop after the first decade.

Other respondents expressed the need for a model to forecast stumpage values and for better analysis of timber volume available from state, private, and other forest sources.

Still others pointed out that no reference was made to volume under contract.

The equation between local installed mill capacity and demand was labelled inaccurate by some.

Finally, some respondents believed the last-five-year average cut is the best measure of demand.

Response:

The harvest level as shown in Table III-29 of DEIS is not a good indicator of local demand as this was during the worst recession in the timber industry in recent history. The current harvest level (1986-88) is much higher than the 1975-1984 level and is probably a closer reflection of demand. The harvest level from "The Forest Program For Oregon," shown in FEIS Chapter 4, is lower than the planned harvest level in Alternative I (see FEIS Summary).

Volume under contract has been removed from the inventory by the acres adjustment for sold sales so it is no longer considered in calculating future harvest. This does supply an important source of guaranteed supply of timber for the purchaser. Currently the volume under contract is about two years worth of sales.

See Chapter 3 of FEIS for further details.

@0700-16 Management Practices

0700-16.1 Utilization

There were two letters with concerns about the effects of utilization standards on outputs One concern is that projected outputs in the DEIS do not reflect the practices which actually take place. It was felt that the amount of timber actually taken out as usable products is much smaller than that in the EIS.

Another respondent indicated that better utilization of logging residue would reduce the demand for old growth timber.

Response:

A utilization standard of a four inch DIB top and a seven inch DBH was projected for future decades. This is two inches smaller than is presently required. This amounts to about one percent more volume for an 18 inch DBH tree than with a six inch DIB. The Ochoco believes having larger quantities of small material available will be a reasonable utilization standard.

For more information concerning utilization standards, refer to the Pacific Northwest Region Plan, available at the Ochoco National Forest Supervisor's Office.

Subject Area 750 Firewood

@0750-01 Firewood

Two-hundred forty-seven respondents felt that firewood is a desirable by-product that should not go unused or be burned up in slash piles. They also felt it helps to clean up the Forest and provides income to local communities.

Some of the reviewers, among them the Crook County Soil and Water Conservation District, felt that the allotments should at least stay the same if not increase. They also wanted the Forest to allow more time for woodcutting and to make the wood more available.

Many people indicated that the general public should be allowed to cut larch for firewood. They also felt that the Forest should stop loggers from selling logging truck loads as fuelwood.

Some noted that there was a problem with the way fuelwood demand is displayed. They felt that the amount sold probably exceeds what is cut.

A few respondents felt that selective cutting would be more beneficial for firewood. They also felt that the Forest needs to educate the public on how to use smaller green fuelwood material.

One person indicated that the amount of firewood available should be reduced.

Response:

Availability of fuelwood is an issue that concerned many people. However, what is acceptable fuelwood has not been defined so it has not been inventoried. Estimates of fuelwood that will be available by alternative (Table 2-8 of FEIS) were based on typical volume of cull material left after logging and the normal mortality that would occur in the vicinity of roads. There is also a small amount from juniper and precommercial thinning. So, the level of timber harvest has the greatest influence on availability and quality of fuelwood. Demand is equally hard to determine as it is based on accessibility and quality of available wood compared to cost of alternative sources of wood or other forms of heat.

Chapter 4 of the Plan has been rewritten to provide standards and guidelines for managing fuelwood. This attempts to make all wood that is not utilized for commercial sawlogs available for fuelwood cutting except were it conflicts with the management direction of a specific Management Area. Some items that have precedence over fuelwood cutting are snag requirements and road closures for big game habitat. Also, a timber purchaser has the right to all timber included in a contract and can process or sell those logs as desired, except for export restrictions, so a purchaser can sell logs for fuelwood It is very possible that as demand and price for fuelwood increases, more logs will be sold for fuelwood.

The free use of fuelwood was under enabling legislation that allowed giving wood to settlers who were dependent on National Forests for fuel. There are several other legislatitive acts concerning disposal of forest products. The Region and Forest has considerable discretion on how this will be done. This policy is in the 2400 section of the Manual which is available at the Supervisor's or District offices. With the current demand for fuelwood, most is sold. This allows the recovery of some administrative costs plus collection of money for slash disposal, reforestation, and erosion control. But some free use material is still available. See local district for availability.

Subject Area 800 Water

@0800-01 Watershed

Four letters, among them the responses from the EPA and the Oregon State Forester, had comments on watershed management.

One respondent stated that in Table 4-6 and on page 43 of the Draft Plan, the water yield values have no real purpose. The reviewer states that this line should reflect a measured output of the Plan's objectives, such as number of restored miles of fish habitat or riparian areas resulting from changes in the timing, quantity, or quality of runoff due to improved watershed conditions. In addition, this person suggested that the Mountain Creek Watershed and Bear, Badger, and Willow Creeks should all be considered highly sensitive due to the presence of anadromous fish.

Another respondent asked how goals and objectives for watershed management are being met.

EPA noted that DEIS Table II-11 is apparently missing two watersheds; the agency stated that they understand there are 24 major watersheds on the Forest and Grassland (22 on the Forest and two on the Grassland), but that two seem to be missing from the table.

The EPA also stated that the streams on the Ochoco range in condition from poor to good in relation to their natural potential, and that the Forest should practice management on a stream-by-stream basis to address individual problems or concerns. The Environmental Protection Agency also noted that Cottonwood, Black Canyon, and Wind Creek drainages are not mapped in the DEIS, and asked if these drainages are part of larger drainages; and if so, which ones EPA further stated that an area analysis would be appropriate for all watersheds in which development is planned near important aquatic resources.

And finally, the EPA requested a statement in the FEIS concerning the one existing instance of domestic use of surface water occurring on the Forest.

To ensure protection of current and future drinking water supplies, the agency requested information on location, size, source, and municipality served, as well as any instances of waterborne disease occurrences and pertinent water quality monitoring information.

The Oregon State Forester noted an apparent discrepancy in the documents. The Forester noted that Appendix B states that watershed harvest dispersion constraints will be between 17 and 23 percent, but that Appendix H lists these figures at 25 and 35 percent, respectively. The Forester asked which set of figures is correct, and what the rationale is supporting these constraints when the Deschutes National Forest satisfied this minimum management requirement with a 58 percent constraint.

Response:

Project level analysis is currently being used on the Forest at the project level, and is part of the NEPA process.

The Final Plan displays a corrected watershed map showing 26 watershed divisions, 24 on the Forest and 2 on the Grassland. The Ochoco regrets any confusion this error may have caused.

Cottonwood, Black Canyon and Wind Creek drainages are included within the watershed identified as John Day tributaries (see FEIS Chapter 3).

Management of the uplands in a watershed will be addressed chiefly through application of a cumulative effects model which measures the rate of harvest activity against a threshold based on watershed sensitivity.

Watershed harvest dispersion constraints (FEIS Appendix B) refer to regeneration (clearcut) harvest limitations (17-23 percent) and overstory removal limitations (50-67 percent) which were employed in FORPLAN modeling to address the concern of the model planning unusually high levels of harvest in certain drainages (see Chapters 3 and 4, FEIS). The values given in Appendix H of the Draft LRMP are watershed threshold values employed to assure a more optimum dispersion of harvest activity/effect over space and time. These threshold values are also employed in risk analysis at the project level.

A further discussion of watershed threshold values and their use can be found in the Supplement to the Draft Environmental Impact Statement for the Ochoco National Forest in the discussion of Management Requirements for Water Quality, and Appendix F.

The watershed threshold values given in Appendix H of the DEIS and Appendix F of the FEIS are specific for each watershed and range from 25 to 35 percent. The Forest weighted average threshold value is 30.1 percent, which means that 30.1 percent of the Forest could be in a harvested condition at any point in time without exceeding the ability of streams on the Forest to absorb and recover from the effects of management activities and natural storm events without long-term impact.

The harvest dispersion constraints and watershed threshold values referred to above could be expected to differ considerably from those used on other Forests (e.g. the Deschutes NF) due to differences in soils, watershed condition, and management practices that have affected the landscape over the past several decades.

The Forest Plan is built around a process designed to assure that goals and conditions are being met. See chapter 5, Implementation, of the Final LRMP.

The FEIS will include the information on domestic water supply use in Chapter 3.

@0800-02 Upstream Impoundments

Four reviewers commented on upstream impoundments Three of the participants felt that upstream impoundments could and should be used to improve water quality, game habitat, riparian areas and recreation. They recommended the program be expanded and stated that the Forest would benefit from approximately 200,000 acre-feet of usable water.

The other respondent felt that nature should be allowed to take its course along streams but stated

that upstream impoundments seemed to be beneficial from all aspects.

Response:

Forest experience with upstream or headwater impoundments has not been encouraging. They are expensive to construct and maintain and to provide an increased streamflow of just one cubic ft /sec. requires the storage and release of nearly two acre ft./day. More effective from a cost efficiency standpoint as well as providing better fish and wildlife habitat is the improvement of riparian areas which is a key element of the proposed Forest Plan.

@0800-03 Timber/Grazing Effects

Two letters were received with comments on timber and grazing effects on runoff The reviewers expressed concern that, once the overstory vegetation is removed, whether by timber harvest or livestock grazing, water flow patterns are likely to change, adversely affecting watercourses both on and downstream from the Forest. The respondents were particularly concerned about spring runoff, and felt the DEIS inadequately dealt with this aspect of water management.

Those responding suggested that grazing practices will have to be drastically altered to protect the Forest from heavy snowpack runoffs.

Response:

It is recognized that timber harvest has the potential to affect the quality, quantity and timing of runoff (see Chapter 4, FEIS). However, analysis of the various alternatives indicates they would affect the amount of runoff by less than 5 percent; in fact, several alternatives would actually decrease total runoff. One area of concern remains - the distribution or dispersion of harvest by watershed across the Forest. In order to assure an optimum dispersion of harvest effects, a model was developed to track harvest activities (cumulative effects) over time and area. Watershed thresholds were established to reflect the natural ability of each watershed to absorb impacts (both natural and human caused) without suffering long term loss of resource values (or causing downstream problems). This model will be utilized to monitor harvest effects and changes in watershed (including riparian areas) condition over time.

For more information on the use of this model please refer to Chapter 3 and Appendix F of the FEIS.

@0800-04 Data/Analysis

One reviewer stated that the water yield values in Table IV-6 of the DEIS have no real value, and that the line should reflect a measured output of the Plan's objectives.

The U.S. Fish and Wildlife Service suggested that the statement in the Draft should address the range of yields from water wells and estimate the usage of ground water on the Forest.

Response:

Water yield values given in DEIS Table IV-6 were developed during the planning process as a possible tool in the development and evaluation of alternatives. Ultimately it was found that total water yield was not significantly affected by the alternatives developed. The values are presented in Table 2-8 of the FEIS, as it was felt this information might be of value to some members of the public. The information requested on yields from wells has been included in WATER, Chapter 3, FEIS.

@0800-05 Monitoring

The EPA stated that Water Management Practices should refer to the Monitoring Plan so as to describe the methods used for the attainment of goals and objectives.

Response:

The FEIS refers to the monitoring plan to show how goals will be reached. See Chapters 5 of the Final Plans.

@0800-06 Flood

One respondent commented on the hazards of flood erosion. The comment was made that the ONF is already at the maximum runoff allowed by the state, and that Federal Regulation 36 CFR 219.27 directs the Forest to minimize hazards from flood erosion and similar impacts to streams and wetlands.

Response:

State regulations do not cover maximum water runoff. However, Federal regulations (36 CFR 219.27) do require the Forest Service to minimize hazards from flood erosion and Forest Service policy (FSM 2520 Amend. 48 and FSM R-6 Supp. 37) reflects this shared concern.

The wording "36 CFR 219.27--minimize hazards from flood erosion and similar impacts to streams and wetlands" is now included in the FEIS Forestwide Standards and Guidelines (see Appendix D).

@0800-07 Water Quality

There were sixteen comments on water quality.

The majority of the respondents were concerned that the Ochoco National Forest's DEIS failed to acknowledge and comply with State of Oregon and Federal water quality standards. Among those with this comment were the Oregon DEQ, the Environmental Protection Agency, the Columbia River Inter-Tribal Fish Commission, ODFW, and the Oregon Water Resource Department.

The DEQ further stated that there are no state water quality standards for riparian zone condition, as stated in the DEIS Table V-3.

ODFW asked, in addition to the above comment, what was meant in the DEIS by "significant degradation of water quality."

The CRITFC asked whether the Forest anticipates continuing management practices on those drainages where standards are being violated, and if so, on what legal basis the Forest justifies those activities that increase or perpetuate those violations.

The EPA also stated that the Plan and DEIS should have referenced the Oregon Forest Practices Act and Rules and indicated how they would be complied with.

Some respondents noted that violations of water quality standards are mentioned in the DEIS, but that only general guidelines are given for their correction. The reviewers requested more specific standards be given for the areas with seasonal violations.

Several participants in the public review process stated that reduction in shade has caused a rise in sedimentation and temperature, causing some streams to fall below water quality standards. Others felt that Forest management activities have had a negligible effect compared to natural processes.

Some stated that since there are very few areas where 50-75 percent shade is obtainable on the Ochoco, and shade appears to be increasing slightly, the Forest should keep the shade standards as they are at present.

One respondent stated that the standard for stream temperature in the DEIS fails to describe what temperature is to be maintained. Another reviewer asked what state water quality standards for temperature refer to--average daily values, daily highs, etc.

Response:

Concerns focusing on the water resource issue (quality, quantity and timing) are shared by the Forest. Of primary importance are temperature and sedimentation (turbidity). The Watershed Improvement Schedule is designed to correct a large measure of problems dealing with water temperature and sedimentation by bringing all riparian areas up to an excellent condition (see response to Riparian comments, 0450-02). Sedimentation problems of the upland watershed level will be mitigated by dispersing harvest activities optimally over the entire Forest, by applying appropriate Standards and Guidelines, and by applying best management practices (BMP's) to deal with site specific situations and problems. Forest Service policy makes allowances for short term deviations from water quality standards (FSM 2526-6). However, it is ultimately the

task of Forest Service personnel, through project planning and administration, to keep any short-term impacts from becoming long-term cumulative effects in violation of state standards. Future activities with the potential to affect the water resource will be monitored and problem areas or activities identified and brought into compliance.

With regard to shade requirements for Forest streams, please refer to Chapter 4 of the FEIS. The pertinent section states; "The requirements for shade along streams will generally correspond to provisions for more than 80 percent of the surface shaded. Where this is unattainable, 100 percent of the potential for shade is the standard."

These shade requirements are necessary in order for the Forest to comply with State Water Quality Standards as directed by the Clean Water Act (Public Law 95-217).

The State of Oregon Water Quality Standards with which the Forest must comply under regulations of The Clean Water Act, are maximum values; though "management activities will include objectives for reducing temperatures to levels that will improve fish habitat capability" (DEIS Appendix D-59).

The Forest Plan FEIS makes reference to the Memorandum of Understanding between the Department of Environmental Quality, State of Oregon, and the Forest Service, United States Department of Agriculture. Under this agreement, the Forest Service recognizes the State's lead in water quality management, cooperates with and gives assistance to State or designated area wide planning agencies, acts in compliance with the Forest Practices Act, and coordinates with EPA (see 208 of the Federal Water Pollution Control Act).

The fact that approximately 50 percent of the streams on the Forest do not meet state water quality standards for temperature and turbidity is an indication to some that many of the watersheds are suffering the cumulative effects of past management activities including: road construction, timber harvest, and grazing. While it is recognized that our understanding of how management activities affect watershed outputs (including sediment) is only just becoming clear, it is wise policy to proceed with caution in situations where risks of long term resource values are high.

As a matter of explanation, harvest threshold values serve as benchmarks reflecting watershed condition or sensitivity (see FEIS Chapter 4, and Appendix F) against which the Forest is able to monitor the rate of harvest activity to determine the level of risk of incurring long term impacts to watershed condition and water quality. "Exceeding a threshold value does not, in itself, limit management options on the Forest. It does, however, indicate the need to undertake other specific mitigation measures to offset potential reduction in site productivity or long-term impairment of water quality" (DEIS p. 133). In order to meet management requirements for water quality, the Forest must assure optimum harvest dispersion, initiate the rigorous application of Best Management Practices, schedule an extensive program of Riparian Improvements, and monitor activities carefully to assure resource objectives are met. All of these elements are key factors in the FEIS.

Finally, it should be pointed out that increased timber harvest (or even harvest at current levels) does not produce the highest present net value, due in part to overall higher mitigation costs. Identifying the level at which the Forest is able to produce a wide range of resource outputs (timber, water, recreation, etc.) and still maintain a viable, functional ecosystem is the basis of multiple resource management.

Two nonpoint source pollution parameters, water temperature and suspended sediment, are the major determinants of water quality on the Forest. Higher water temperatures encourage the growth of certain nuisance organisms such as bacteria, algae and fungi, that in turn affect the levels of dissolved oxygen, pH, and turbidity, while producing undesirable tastes and odors. The amount of shading in riparian areas determines the extent streams are warmed by solar radiation. The riparian prescription (Final Land and Resource Management Plan, Chapter 4) contains the water temperature standards and the amount of shade necessary to meet those stan-

dards. Special riparian area alternatives for meeting shade requirements were not examined individually because their effect on PNV would be less than one percent.

Sediment yield is largely determined by the amount and erodibility of exposed soil in a watershed. Timber harvest activities, including road construction, slash treatment and site preparation, not only affect the amount of exposed soil, but also alter the timing and quantity of water leaving a watershed. Following harvest activities, watersheds become more hydrologically sensitive for a period of time, with storm events producing more rapid and extreme responses. This greater sensitivity to storm events results in more energy being available to transport sediment to stream channels. Thus the primary effort in maintaining water quality is directed at the timber harvest program and its effect on sediment production in a watershed over time. Other water quality parameters will be monitored on a project basis as needed.

Table 5-3 (Plans Chapters 5) has been changed to reflect new wording: "Any degraded riparian areas found to be adversely affecting water quality will be improved to assure that the water quality meets state water quality standards."

"Significant degradation of water quality" is taken to mean any water quality parameter that does not meet stated Oregon water quality standards.

On the Forest, there are two primary water quality parameters: temperature (as it is affected by shade) and sediment (both in transport as suspended sediment or turbidity, as well as entrained in streambed gravels).

State of Oregon Water Quality Standards for temperature refer to point-in-time maximum values.

@0800-08 Best Management Practices

Three respondents commented on best management practices (BMP's).

One reviewer stated that BMP's are not used for a number of reasons, and that the DEIS should address how implementation of a new Management Plan will "magically" change actual practices into "best" practices.

Another suggested that the Forest attempt to meet "optimal" management requirements rather than minimum management requirements.

The EPA stated that the DEIS should have more fully explained selection of BMP's for a particular activity, and how uncertainty was factored into those selections.

Response:

The element that has the potential to bring about the actual implementation of effective Best Management Practices is the monitoring plan. Monitoring closes the circle between the Environmental Assessment process and project implementation. Monitoring tells the Forest how well it is doing and is vital in bringing about change in how the Forest Service plans and carries out management activities.

Best Management Practices (BMP's) used on the Forest are contained in the report "General Water Quality Best Management Practices," USDA-FS, PHR Nov. 1988. A copy of this report is on file in the Supervisor's Office, Prineville, Oregon.

@0800-09 Equivalent Clearcut Area

Nine reviewers commented on equivalent clearcut area (ECA) or equivalent harvest area (EHA) (the two are used interchageably in the Plan/FEIS documents).

Some remarked that they had serious concerns about watershed ECA and its use; they stated that they were not aware of any research on how reliable ECA calculations used in the DEIS were

Several respondents stated that Table 3-II in the DEIS was suspect because it implied that some watersheds are capable of withstanding abuse while others are not. Others felt that "watershed sensitivities" in the table were poorly defined and should have been included in the glossary.

Some felt discussion of ECA was double-talk to justify cutting more than the threshold value of 30.1 percent. They asked if the ECA includes the present system of roads, extent of compacted sites, grazing, mining, or the orientation of a clearcut, commenting that a clearcut on a slope into a stream is more destructive than one on a flat area.

CRITFC and the Oregon DEQ asked what criteria are used to derive ECA values, and how ECA values are determined and implemented for a specific watershed.

One person said that the meaning of Table 4-16 (ECA) was not clear. The reviewer asked that labels or legends be added to the text to explain the values in the table.

Some respondents felt that the limitations on the amount of area harvested in watersheds should be reduced or the Forest Service should get the legal authority to control harvest schedules. These reviewers pointed out that two or more sales within a single watershed, each harvesting near maximum ECA, could cut out in one year, adversely affecting water quality. They stated that the Forest Service is gambling with soil and water resources.

Response:

The concept of watershed sensitivity is discussed in Chapter 4 of the FEIS and in Appendices E and G. Watershed sensitivity ratings are based on a number of factors including: soil type, channel condition and fishery values. These ratings reflect the existing physical condition of the watershed and its susceptibility to damage from human activities and/or natural events. Sensitivity levels were established to work within the natural ability of a watershed to recover from the impacts of human activities and natural events with no long-term resource damage. These sensitivity ratings will be evaluated over the life of the Forest Plan and will be readjusted as necessary in the future.

The fact that two or more timber sales, sold at different times, could cut out within a short period of time with possible negative impacts to the watershed is a recognized problem. However, new timber sale contract regulations shorten the period in which harvest must take place and require a higher bond to encourage earlier harvest. Also, the cumulative effect model used by the Forest has the ability to evaluate this situation and its effect on ECA for various alternatives during the planning process, in time for corrective action to be taken to mitigate or avoid potentially damaging situations.

Equivalent Clearcut Area (ECA) calculations are a method of keeping track of a range of harvest activities, including: clearcut, overstory removal, thinnings and uneven-aged management. As part of the cumulative effects (CE) model, ECA yields a picture of the rate of timber harvest or vegetative management over time. Other more static elements, e.g. roads, grazing, stream channel condition, soils, fishery values, and slope, figure into the development of watershed sensitivity levels reflecting the physical condition of a particular watershed (see chapter 3, FEIS, and Appendix E and G). Watersheds have a natural ability to absorb impacts, natural or human caused, up to a certain level or threshold. Above this threshold, longer term damage to watershed resources may occur.

For each sensitivity level assigned to a watershed on the Forest, a harvest threshold value was established. When ECA is plotted against this threshold value a cumulative effects analysis of the rate of harvest activity against watershed conditions is made possible. Should a condition arise when the ECA exceeds the threshold value, it is an indication that watershed values may be at risk and that steps should be taken to reduce this risk either through mitigation or rescheduling of harvest activities (FSM 2405.13).

Additional uses for this cumulative effects analysis include assuring an optimum dispersion of harvest effects on watersheds on a District or the whole Forest. Also, cumulative effects analysis provides a benchmark, management activities versus watershed condition, which can be evaluated against in the future for purposes of monitoring the effectiveness of management prescriptions and best management practices.

Reference to Table IV-16 is made on page 133 of the DEIS. The table has been corrected in the FEIS to make it more readable.

Subject Area 820 Soil

@0820-01 Compaction

Three letters were received with comments on soil compaction. CRITFC remarked on the DEIS statements that no more than twenty percent of an activity area can be compacted to a degree which degrades vegetative productivity, that cable logging is estimated to increase soil bulk density on ten percent of an activity area and tractor logging on thirty percent; and that it was previously stated that a Forest-wide average of twenty percent soil compaction would be allowed for activities. From this, CRITFC infers that, if this degree of compaction constitutes the predicted compaction level, then with a twenty percent threshold of variability from the predicted level, compaction would have to affect twenty-four percent of the activity area before action would be taken.

One reviewer asked whether compaction caused by partial cutting can't be largely offset by equipment modification, and how much has been done in this area such as requiring the use of large-rubber-tired skidding devices, managing placement of skid roads, etc.

The other respondent suggested that soil effects should receive the highest priority throughout project planning and implementation, and that emphasis should be placed on prevention of compaction and displacement in relatively undisturbed areas.

Response:

The soil management guideline (Plan, Chapter 4) which states that, "no more than 20 percent of an activity area can be compacted or displaced to a degree which degrades vegetative productivity," refers to a point in time one year after the activity has taken place; and may include mitigation such as ripping and tilling to bring compaction levels with the 20 percent guideline. This is an average value and includes a 20 percent variability factor meaning some sites may be at 16 percent while others will be at 24 percent.

Equipment modification along with use of designated skid trails or logging on snow, are all techniques that are being explored to reduce soil compaction damage. However, each method has its drawbacks and limitations.

The Forest agrees that soil should receive high priority during project planning and implementation. See Chapter 4 of the FEIS for the discussion on evnironmental consequences.

@0820-02 Productivity

One respondent stated that, until such time as better information becomes available on lost soil productivity, the following ECA thresholds should be used: high, ten percent, medium, twenty percent, and; low, twenty-five percent.

Response:

At this point in time the watershed threshold (EHA or ECA) values provide the Forest with a benchmark against which it can evaluate the risk or effects of harvest and management activities. These threshold values will be monitored against effects on the ground, and can be raised or lowered in the future to assure resource values are protected.

@0820-03 Sedimentation

Eight letters, among them the response of CRITFC, had comments on sedimentation.

One person stated that the Transportation section of Riparian Management, PLRMP ("Road drainage will be designed and maintained to eliminate any influx of road sediment runoff directly into riparian areas"), is not realistic. The comment is made that many roads are located in draw bottoms, and the only place the roads can drain is into the riparian zone.

Another respondent stated that the low soil/water values in DEIS Table B-VIII-7 and elsewhere do not reflect the true value of the Forest's soil resource.

Another reviewer requested that a value be assigned to potable water with relatively steady seasonal flow and low suspended sediments. This person felt the entire Forest Plan showed a bias by not recognizing that water may be as valuable an output as timber.

One participant stated that the value of sedimentation should be based on how much money must be spent to remove it from spawning beds.

CRITFC asked what the effects of different amounts of road building, cattle grazing, and mining on sedimentation are. The Council also requested that the methodology for calculations of sediment production and delivery to stream channels be made more clear in the final documents, and should include formulas and references.

Response:

The wording in the Final LRMP has been changed to read "directly into stream channels."

The Forest shares a strong concern for maintaining soil productivity and water quality values. Forestwide Standards and Guidelines contain a number of criteria designed to protect soil and water. The best management practices (BMP's) described in Chapters 2 and 4 of the FEIS (also Appendix G) have also been developed to assure soil and water resources are maintained.

The soil and water values used in the economic analysis of the various alternatives were taken directly from the 1985 RPA program assessment, and have been designated for use in the planning process. The value assigned to sediment reduction (i.e reduced soil erosion) of $6.00/metric ton and maintaining water quality of $0.20/acre ft. (FEIS Appendix B, Section 4) are considered by many to be unrealistically low.

Any land management plan is a blend of resource values and outputs involving tradeoffs between a range of objectives. It is felt that by adhering to the standards and guidelines and management prescriptions that resource values will be adequately protected.

Sediment production is closely tied to timber harvest, since it is the only real variable from among the range of alternatives. Roads, generally recognized as the major source of sediment, change little from alternative to alternative. More stringent grazing utilization standards will be applied to all alternatives for riparian areas. The Forest has no data from which to make estimates on sediment production from grazing or mining. The process for calculating sediment production and delivery to stream channels is available in the Planning Record, which is on file in the Supervisor's Office.

@0820-04 Specifics

Two letters had specific comments on soils. The EPA asked where on the Forest the high-clay soils are located. The other respondent stated that if logging could benefit a particular site, balloon or helicopter logging might be used to protect fragile soils.

Response:

The FEIS contains a description of the location of the high-clay soils (see FEIS Chapter 3). For the most part, they are located on southern exposures as buried soils on north and east exposures. For a detailed description of the location of clay soils, there are copies of the Forest Soil Resource Inventory available at the Supervisor's Office.

Alternative logging methods, including the use of helicopters, are viable options and have been used in the past to protect and minimize effects on other resources (see also Plan, Chapter 4, mitigation measures for soil).

@0820-05 Plan Comments

One respondent asked why soil loss is considered an output (Table IV-6 and elsewhere in the DEIS and PLRMP).

Response:

The soil loss values given in FEIS Table 2-8 provide relative comparisons of erosion levels. They are not looked upon as a positive output.

@0820-06 Erosion

Eight responses were received containing remarks on erosion. Among the letters were those from ODFW and CRITFC.

Several of the respondents registered opposition to clearcutting, stating that this practice is very conducive to erosion and destructive to the environment. Some commented that the Forest Service is directed by Federal regulations to minimize erosion impacts. Others said there is nothing wrong with clearcutting as long as it does no harm to the environment, and that in fact the practice creates wildlife and livestock forage, however, they agreed that clearcutting in the wrong areas can harm streams through erosion.

Most of the comments pertained to ground cover and its relationship to erosion prevention. ODFW stated that the standard for ground cover in riparian areas should be 80 percent. CRITFC asked how it was established that 40 to 60 percent ground cover will be sufficient to prevent significant erosion, and on which streams flowing through grazing allotments does ground cover exceed 60 percent.

Others stated that 60 percent should be specified in the FEIS as the minimum basal ground cover area to effect proper infiltration of precipitation. One reviewer mentioned the requirement in the 1897 Organic Act to provide favorable conditions of streamflow, and stated that the amount of vegetation needed for precipitation infiltration was not alluded to anywhere in the Plan.

One respondent blamed neither logging nor livestock for erosion. This person stated that the vast majority of erosion occurring on the Ochoco in the past 23 years took place in February of 1979 as a result of storms and runoff.

Response:

The Forest has reviewed ground cover standards and feels the range given (FEIS Appendix D) is adequate to maintain soil productivity in riparian areas (see FSM 9/83 R-6 Supp 45--effective ground cover by erosion hazard class).

Standards for maintaining soil and vegetation in a condition which promotes infiltration of precipitation (i.e. reduced compaction and surface erosion) are contained in the Final Plan, Chapter 4 (soil management in riparian areas).

The wording "36 CFR 219.27--minimize hazards from flood erosion and similar impacts to streams and wetlands" has been included in the FEIS Forest-wide Standards and Guidelines

Removal of vegetation from the Forest, namely timber harvest, reduces evaporation transpiration. As a result, soil moisture values are higher in clearcuts than under adjacent stands of mature timber. This is the reasoning that is used to calculate the changes in runoff predicted in FEIS Chapter 4. Increased timber harvest yields greater runoff; though overall differences are less than five percent.

Although clearcutting appears more destructive, soil damage is concentrated and because of this is often easier to correct; e.g. reducing the compaction damage from heavy equipment through tilling. On the other hand, partial cuts or salvage logging must cover large areas of land with many miles of skid trails. The choice is between concentrated impact (with clearcutting) or extensive impact to the land with other forms of harvest. Which method is better or worse overall often depends on site characteristics and stand condition.

The majority of degraded stream reaches on the Forest are the result of the cumulative effects of a number of activities (including road construction, timber harvest, grazing, etc.) that have taken place over the last several decades, and are seldom the result of a single activity. The cumulative effects model in use on the Forest analyzes the risk of entering watersheds at various levels of management in conjunction with a major storm event.

Subject Area 830 Air

@0830-01 Air

Eleven letters, among them the responses of the Environmental Protection Agency, the Oregon Department of Environmental Quality, and the Oregon State Forester, had comments on air quality. Most, including the agencies mentioned above, were concerned about the detrimental effects of prescribed fire and slash burning on air quality. The agencies all referred to the Oregon State Implementation Plan (SIP) and asked if the Ochoco was in compliance with it.

DEQ and others expressed concerns over the amount of Total Suspended Particulates (TSP) from prescribed fire. Most respondents expressed a desire to see prescribed fire used less frequently. Some suggested that all slash and debris be ground back into the soil.

Long-term effects of air pollution, such as acid rain and health effects, were addressed by some. The EPA stated that smoke from woodstoves causes serious winter air pollution.

The State Forester noted that the DEIS failed to state that prescribed fire reduces fuels buildup and the risk of wildfire. The letter from the Forester also made the statement that forest smoke will originate in the Ochoco whether prescribed fire occurs or not.

The DEQ commented that if projected annual and daily air pollution emissions do not exceed those of the baseline period (1977-78), then this issue should not be analyzed further.

Response:

The Forest is concerned about the health and discomfort impacts of smoke. Prescribed fire is conducted in accordance with State Smoke and Visibility Plans to avoid and minimize these impacts on the public. Although currently outside the jurisdiction of State Smoke and Visibility Plans, this Forest abides by the spirit of these plans in continuing to reduce emissions from our activities. The recently completed Environmental Impact Statement (EIS) on Managing Competing and Unwanted Vegetation emphasizes human health issues. The Forest incorporates this more comprehensive guidance on public health concerns in the FEIS and Forest Plan. Improvements in smoke abatement technology will be utilized as they develop.

Since the adoption of the Oregon SIP, the Forest has been in full compliance with the regulations on protection of visibility and the goals of reducing smoke emissions. The FEIS Appendix D and Forest Plan Chapter 4 have been updated to reflect the newly approved SIP.

During the 1977-78 baseline period, the Ochoco National Forest's share of the Bend-Madras Basin TSP load was 9,200 tons. From current levels of around 13,000 tons it should continue to drop to approximately 9,000 tons by the fifth decade. For this reason it was decided that further analysis of this issue was not needed.

While most of the draft alternatives did in fact show an increase in TSP in the first couple of decades due to increased harvest levels, none of the alternatives proposed a level out of line from that of the baseline period. The range of expected TSP production is well within the range of error of the estimates.

Statewide, TSP emissions from Forest Service prescribed burning are being reduced. This reduction occurs because many Forests are burning fewer acres and most Forests are burning a smaller percentage of forest residues by employing tested and proven techniques to reduce emissions. See Chapter 4 of the Forest Plan for details on mitigation techniques employed on this Forest.

The DEIS did fail to mention that prescribed fire is one tool used to assist in preventing uncontrollable wildfire. That oversight has been corrected in Chapter 4 of the FEIS.

Subject Area 900 Land Status

@0900-01 Land Ownership Adjustment and Exchange

There were four comments concerning Land Status.

One respondent stated that the Forest Service should recommend the acquisition of lands by exchange or purchase with willing private landowners to produce a consolidated block of Federal land.

Another felt that the Forest Service should not use condemnation or exert pressure on landowners to acquire private inholdings.

Still another opinion was that land ownership adjustments should give a high priority to riparian areas, lands adjacent to wilderness, and lands along inventoried Wild and Scenic Rivers.

Finally, one reviewer stated that the lands designated for exchange in the proposed Steelhead Falls Wilderness Area should be identified for acquisition.

Response:

The Ochoco National Forest and Crooked River National Grassland goal is to achieve the land ownership pattern that best supports resource needs and reduces administrative costs. The Ochoco will acquire or dispose of lands only when it is clearly in the public interest. Changes in land ownership should reduce administration and protection costs or improve resource conservation and production.

Land exchanges are the most common method of land ownership adjustment, and most land exchanges in which the Ochoco participates are actually initiated by the private landowner. The purchase of a piece of property will be considered only when the possibilities of exchange, donation, or the acquisition of a partial interest have been exhausted. Condemnation will be used only when all other methods of acquisition fail and the property is required for the protection, administration or utilization of National Forest land.

The Ochoco has not identified any lands for possible purchase or condemnation.

Lands within the Ochoco National Forest have been grouped into the following ownership categories:

1. Areas where Congress has directed the Forest Service to retain Federal lands and to acquire non-Federal lands for a designated purpose. Scenic Rivers fall into this category.
2. Areas where National Forest ownership is necessary to meet management objectives. Federally owned lands will be retained, and non-Federal lands will be acquired as the opportunity or need arises. Riparian areas and lands with wilderness values fall into this category.
3. Lands allocated for commodity production, where the lands would be managed to provide similar types of output regardless of ownership. Federal lands may be retained, or they may be used to acquire lands in Categories 1 and 2. However, lands in this category will not be disposed of if that would result in a breach in a solid block of Federally owned land. Private lands within this category may be acquired in order to consolidate Federal ownership.
4. Small, isolated blocks of National Forest land which do not contain special features, and which are expensive and difficult to manage. These lands will be used to acquire lands in Categories 1, 2 and 3. Disposal of Category 4 lands will have priority over the disposal of lands in Category 3.
5. Areas where more intensive study and planning are necessary to determine the optimum land ownership patterns. Federal lands in Cove-Palisades State Park are included in this category.

Refer to the Standards and Guidelines Section of Chapters 4 of the Final Plans, to FEIS Chapter 4, to Appendix G of the Grassland Plan, and Appendix D of the Forest Plan for more detailed information.

Subject Area 920 Special Land Uses

@0920-01 Utility Corridors

There were four letters with comments on Special Land Uses. Among them were the responses of the US Department of the Interior, the Oregon Department of Energy, and the Bonneville Power Administration of the US Department of Energy.

One respondent stated that the DEIS failed to address the environmental consequences of visual impacts resulting from transmission systems. The Oregon Department of Energy commented that the DEIS should address the effects by alternative on siting of transmission lines and pipelines.

The US Department of the Interior and BPA recommended that existing and planned utility corridors be designated and addressed as required by Section 503 of the Federal Land Policy and Management Act of 1976.

Response:

The Proposed Land and Resource Management Plan has been modified to identify an allocation for utility corridors (Utility Corridors Management Area, Chapter 4, Grassland Plan) This management area will provide for limited additional facilities. No further corridors are planned. This is true in all alternatives.

A proposed transmission line would cross private land only within the Forest boundary. Because the National Forest would have no legal jurisdiction over this corridor, it is not designated as a management area.

Electric transmission lines involve large, negative visual impacts. For technical reasons, these lines cannot be buried. The natural gas transmission line is buried.

Refer to Chapters 3 and 4 of the FEIS for more information.

@0920-02 Guides

One person noted that the Plan allows for a commercial guiding and outfitting concern in the Black Canyon Wilderness, and requested information on setting up such a venture.

Another stated that commercial outfitters and their attendant stock animals should be carefully regulated and monitored on Forest lands, particularly in Wilderness Areas. This respondent felt that preservation of natural resources should take precedence over commercial uses of the forest.

Response:

Outfitter/guide permits will be awarded in the Black Canyon Wilderness only when the permitted activity will meet the management objective of providing a wilderness experience. If an application for an outfitter/guide is received, the activity will be analyzed through the NEPA process to determine whether a permit should be issued.

If a permit is issued, the outfitter/guide will be required to comply with certain restrictions, as identified in the analysis to maintain wilderness qualities and objectives. Refer to Chapter 4 of the Plan, Standards and Guidelines, for use restrictions.

Subject Area 930 Energy

@0930-01 Leasing

Four letters were received with comments on energy leasing.

One respondent suggested that all National Forest lands be withdrawn from appropriation under the energy leasing laws.

Another wanted leasing prohibited in areas allocated to old growth, SPNM recreation, or areas considered for Wild and Scenic River or Wilderness classification.

Still another respondent was unhappy that 80 percent of the Forest was proposed for oil and gas lease availability, stating that many areas not in wilderness have uses incompatible with oil and gas leasing.

Finally, one respondent suggested that a general overview of constraints on oil and gas leasing would prepare the public and managers for issues which activation of the leases will initiate.

Response:

The Forest Service recognizes the importance of responsible energy development to the nation's economy and security. The Ochoco National Forest seeks to facilitate the environmentally sound development of oil and gas resources.

On the Ochoco National Forest, wilderness areas are the only areas withdrawn from mineral leasing. In other areas, stipulations are attached to leases to assure that development will be compatible with other resource values.

The most restrictive stipulation requires "no surface occupancy." When a lease is issued with this stipulation, no road building, seismic testing, drilling, pipeline construction, or any other use of the surface is allowed. However, oil, gas or geothermal deposits below an area leased with a "no surface occupancy" stipulation may be tapped by directional drilling from outside the restricted area. The management areas on the Ochoco where the "no surface occupancy" stipulation will be attached to all leases include old growth, roadless areas, Scenic Rivers and the North Fork Crooked River Wilderness Study Area.

Other, less restrictive, stipulations are also attached to mineral leases. For example, a seasonal use stipulation may be used to protect wildlife during critical times of the year. A setback stipulation may be used to keep operations and facilities away from roosting or nesting sites.

In addition, lessees and operators are responsible for the proper rehabilitation of disturbed lands. Even after a lease has been issued, operations will not be allowed until a surface use plan has been approved. The surface use plan must describe in detail the technical aspects of the proposed activity, the location and magnitude of any potential surface disturbance, and the rehabilitation measures that will follow the activity. To insure that rehabilitation work is performed, a bond based on the cost of that work will be required before any surface-disturbing activities are approved.

The Standards and Guidelines Section of Chapter 4 in the Final Plan lists the lease stipulations required for each management area. Chapter 4 of the FEIS, Environmental Consequences, also discusses the effects of oil and gas development.

@0930-02 Data Incorrect

The Oregon Department of Energy and DOGAMI commented on energy potential on the Ochoco.

The Department of Energy disagreed with the conclusion in the DEIS that 90 percent of Ochoco lands are prospectively valuable for oil and gas resources, citing what that agency calls a lack of conclusive data in the draft.

DOGAMI contradicted the statement in the draft that the Forest and Grassland have no known geothermal resources The letter stated that DOGAMI's geothermal maps show a warm water spring on the Forest.

Response:

A mineral potential report was prepared for the Final Plan. This report classifies approximately 54 percent of the Grassland and 92 percent of the Forest as prospectively valuable for oil and gas, based on USGS information.

The report also classifies all of the Grassland and Forest as favorable for the discovery of thermal water suitable for direct heat applications. This classification is based on a Oregon Department of Geology and Mineral Resources report which shows a warm water spring on the Snow Mountain District.

Subject Area 940 Minerals

@0940-01 Plan Comments

Letters from the U.S. Department of the Interior, the EPA, the Oregon Department of Geology and Mineral Industries (DOGAMI), and the U.S. Bureau of Mines were received with requests for more information to be included in the EIS.

The EPA requested that a list of mining claims classified as lode or placer mines be added.

The Department of the Interior wanted information concerning mineral development and production, the value of past production, and projected mineral demand. USDI and the Bureau of Mines recommended the following information be added to the documents: a discussion of how minerals are affected by each alternative; a list of current mineral withdrawals and acres involved; definitions of access restrictions for locatable minerals; and mineral potential for locatable and leasable minerals, including a detailed discussion of the mineral potential of each roadless area. Along with DOGAMI, USDI recommended that a mineral potential map and mineral inventory be added. DOGAMI also noted that jasperoid being mined may be an indicator of a hot spring gold mine

DOGAMI and the EPA stated that the potential environmental impacts of mining on water quality and cultural resources should be discussed under mineral exploration.

The EPA also commented that the process through which operating plans are approved or disapproved in sensitive areas should be described.

Response:

Two mineral potential reports, one covering the Grassland and one covering the Forest, were written to be used as input to the final Plans. The presence of jasperoids (agate, jasper or thundereggs) was one of the criteria used to determine mineral potential.

A computerized list of mining claims is maintained and updated quarterly at the Regional Office. This list classifies each claim as lode, placer, tunnel or mill site. The reports and list of claims are available for review at the Supervisor's Office.

Mineral development and production, mineral potential, past production, current mineral withdrawals, access restrictions, and the process used to approve or modify operating plans are discussed in Chapter 3, "Affected Environment" of the FEIS. The mineral potential of each roadless area is discussed in Appendix C of the FEIS. The environmental effects of mining on water quality and cultural resources are discussed in the minerals section of Chapter 4, "Environmental Consequences" of the FEIS.

The FEIS does not identify new sources of mineral resources or predict future demand for minerals. Rather, it defines broad areas favorable for the occurrence of mineral deposits. Ultimately, the exact nature, extent and location of any new resources will be determined by industry through self-initiation under the 1872 Mining Laws.

0940-01.1 Plan Comments

The USDI stated that Federal law gives claimants the statutory right to develop their mining claims, and that the Forest Service has the responsibility to accommodate mineral development on lands open to mineral development.

DOGAMI felt that a bias against mineral production was evident in the draft Plan. The agency stated that a different set of standards was used for minerals than for other resources. The example given was the fact that dollar values were placed on campers using the forest, but none was given for mineral exploration.

DOGAMI also felt that the planning team had a minimal background in geology and mineral resources, because there were no geologists or minerals personnel listed as preparers in the draft.

Response:

It is true that Federal law gives claimants the statutory right to develop their mining claims. The Forest's goal for minerals and energy is to "provide for and facilitate the exploration, development and production of mineral and energy resources in coordination with other resource objectives, environmental considerations and mining and leasing laws." The Forest will respect the rights of mining claimants and will accommodate mineral development on the Forest.

The evident bias against mining in the Proposed Plan and DEIS is unfortunate. A geologist was included on the interdisciplinary team which prepared the Final Plan and FEIS. The geologist used available references to prepare two mineral reports which were used as input to the Plan. These reports are listed in the references and are available for review at the Supervisor's Office.

In the Final Plan, a dollar value was placed on mineral leasing. A value was not placed on locatable mineral exploration and development. It was decided that such values cannot be accurately predicted because the discovery and development of mineral resources will be initiated by industry under the 1872 Mining Laws. A value was not placed on mineral materials because almost all mineral material produced is used on Forest Service roads or provided free of charge to other government agencies.

0940-01.2 Plan Comments

The EPA letter contained the comment that mining will be allowed on 80-90 percent of the Forest and questioned the statement in the draft that mining would have a "minor effect on the water resource." The EPA stated that many small mines could have a large cumulative effect, particularly if road building increased due to mining projects.

Another respondent commented on the statement in Chapter IV of the DEIS which says, "The level of control (of mining activities) depends on the mineral potential of the scenic and riparian areas." The reviewer asked if this indicated that ecological balance can be purchased if the mineral potential is great enough.

Response:

Mining can have a negative impact on the environment. Reasonable and practical measures aimed at minimizing or mitigating these impacts are included in operating plans. In addition, when it is appropriate to do so, operating plans are used to limit impacts until it is certain that valuable minerals are present at a site. However, this is not meant as an indication that ecological balance can be purchased if the mineral potential is great enough, but rather as recognition of the balance between the statutory rights of a mining claimant and the need to protect the environment.

Although mining is allowed on 95 percent of the Forest, it is concentrated on approximately 10 percent of the land (the areas with moderate or high mineral potential). Most mining on the Ochoco National Forest is lode (hard rock) mining, which generally has less effect on water quality than placer mining. Any predicted impact on water quality is addressed in the operating plan. At present levels of activity, mining has a minor cumulative effect. Increased levels of activity would require a new analysis of environmental effects.

Refer to Chapter 3 of the FEIS, "Affected Environment," for a discussion of operating plans and to Chapter 4 of the FEIS, "Environmental Consequences," for a discussion of the environmental impacts of mining.

@0940-02 Monitoring Requirements

The EPA recommended that the plan include water quality monitoring requirements for sites with the potential to affect water quality

The Columbia River Inter-Tribal Fish Commission noted that management plans for mineral development include reclamation requirements, but stated there is no indication of monitoring required of the

mining company, and asked if monitoring is the sole responsibility of the Ochoco. CRITFC also asked what the Forest-wide goal for reclamation consists of, and whether it implies restoration to natural appearance.

Response:

The Plan requires that water quality be monitored before, during and after selected projects. As appropriate, mining activities will be selected for this water quality monitoring. In addition, water quality will be monitored as part of minerals activities monitoring. Refer to Chapter 5 of the Plans, "Implementation of the Plan," for monitoring requirements.

The degree to which reclamation can restore the landscape to its original appearance depends on the type and size of development. For this reason, reclamation is addressed on a case-by-case basis in the operating plans. Monitoring required of the mining company will be addressed on a case-by-case basis in the operating plan.

@0940-03 Prohibited Areas

Four letters had comments on mineral extraction in general. Some respondents wanted all mineral extraction and processing prohibited in riparian zones. Others suggested it should be prohibited everywhere on the forest.

Response:

The Forest Service recognizes the importance of mineral resources to the nation's economy and security. The Mining Law of 1872, as amended, grants the right to locate and develop mining claims on public lands. The Ochoco National Forest seeks to facilitate the environmentally sound development of mineral resources.

On the Ochoco National Forest, wilderness areas, the Ochoco Divide Research Natural Area, Delintment Lake and Walton Lake Campgrounds, Ochoco and Rager Ranger Stations, and a strip of land along Highway 26 are withdrawn from mineral location. In other areas, measures are included in operating plans to assure that development will be as compatible as possible with other resource values.

Operating plans are developed and approved on a case-by-case basis. The operating plan must describe in detail the technical aspects of the proposed activity, the location and magnitude of any potential surface disturbance, and the rehabilitation measures that will follow the activity. To insure that rehabilitation work is performed, a bond based on the cost of that work will be required before any surface-disturbing activities are approved

Chapter 3 of the FEIS, Affected Environment, discusses the mining law and operating plans.

The development of common variety materials (for example, gravel and sand) is governed by the Materials Act of 1947, as amended. The Forest Service has the authority to develop these sources, and mining claims may not be located for these materials. As stated in Chapter 4 of the Plans, these sources will not be developed in riparian areas.

@0940-04 Withdrawals

The U.S. Department of the Interior stated that the definition of withdrawals needs to be reviewed. The agency noted that staking of new claims and establishment of new leases may be prohibited depending on the individual withdrawal, but that development of leases and claims established prior to the date of withdrawal is not necessarily prohibited.

DOGAMI stated that, in cooperation with the BLM, that agency has identified a potential gold mineralized area just to the south of Haystack Butte, and that this area should not be withdrawn from mineral location or leasing.

DOGAMI also said that a mineral inventory should be completed before areas are chosen to be Research Natural Areas.

Response:

Withdrawal is defined as the withholding of an area of Federal land from settlement, sale, location, or

entry under some or all of the general land laws for the purpose of limiting activities under those laws in order to maintain other public values in the area. Most of the withdrawn areas on the Ochoco National Forest are withdrawn from the mining laws, but not the mineral leasing laws. Wilderness areas are withdrawn from both the mining and mineral leasing laws. In either case, valid existing rights (leases and claims established prior to the date of withdrawal) are respected.

The Department of the Interior has the authority to make, modify or revoke withdrawals. The Chief of the Forest Service reserves the right to concur or not concur on all withdrawals involving leasable minerals. The Forest Service makes recommendations to the Department of the Interior (Bureau of Land Management) on withdrawals involving locatable minerals. Before an area is withdrawn, both the Forest Service and the Bureau of Land Management assess the mineral potential and analyze alternatives to withdrawal.

Refer to Chapter 3 of the FEIS, "Affected Environment," for a discussion on withdrawals.

@0940-05 Rockhounding

There were two letters with comments on rockhounding. One respondent stated that more lands should be held open for rockhounding. The other expressed concern that incidental non-commercial rockhounding is considered a mining activity. It was suggested that the Ochoco take action to make sure non-commercial rockhounding and mineral collection remain as such.

Response:

Rockhounding on National Forest lands does not require a permit or mining claim as long as the activity does not conflict with existing rights, and the specimens are collected for personal, noncommercial use. If the specimens are sold commercially, the activity is considered mining, not rockhounding, and the mining laws or mineral sales laws apply.

Individuals have the statutory right to locate and develop thunderegg and gemstone deposits on public lands. This prevents recreational rockhounders from digging in these areas without the claimant's permission. To prevent this problem, two rockhound clubs have located claims which are open for free public use This option is open to any club interested in maintaining claims

Subject Area 1000 Transportation System

@1000-01 Road Closures (Permanent and Seasonal), Road Density

Ninety-five letters were received with comments concerning road closures. The majority of the respondents recommended that the Ochoco undertake an aggressive road closure plan to protect the environment, improve conditions for wildlife, and insure cost-effectiveness of the transportation plan. Most felt that the Forest has built too many roads in the past and that any new roads built for timber harvest should be closed immediately upon completion of harvest activity.

Some suggested a system of temporary or limited road closures, with harvest access allowed but other access denied. Others wanted roads closed only during hunting season. Still others indicated that roads closed and replanted could add to the timber base.

One respondent recommended closing feeder roads on a rotating basis to provide areas for non-motorized recreation and big game habitat.

Many other respondents disagreed with road closure Some felt that public land should be open to all members of the public at all times Others stated that the elderly and handicapped would have no access to the National Forest if road closures took effect.

Some stated that they would agree to road closures only in certain areas and in very wet seasons. A few reviewers supported the road construction plans in Alternative B-Plus or E-Departure.

Several respondents, among them the EPA and ODFW, commented on road density.

Varying opinions were voiced concerning road density. Recommendations ranged from less than one mile per square mile to more than the four miles per square mile proposed in the draft Plan. Most felt that current road density is too high and is having adverse effects on wildlife and recreation.

A few respondents stated that road densities are especially high in sensitive areas such as draw bottoms.

ODFW noted that the Plan stated 4.1 miles of road exist for each square mile of developed area, but that since most of the road mileage is in the southern two-thirds of the Forest, the road density there is probably as high as 5-7 miles per section.

The EPA said that, as the phrases "short term" and "long term" are defined in the glossary, increases in road density could create impacts in a period of time shorter than "short term."

One respondent stated that the amount of mileage in the proposed plan would not allow Forest recreation to keep up, let alone to grow.

Response:

The Forest and Grassland recognizes the need to balance access with the needs of other resources. The Standards and Guidelines in Chapter 4 of the Forest and Grassland Plans will provide direction on how on- and off-road access would be managed. A Travel Map has been developed for the Forest and Grassland which incorporates the direction from the plans. It clearly displays how and where access to the Forest and Grassland could be gained. The discussion of access in the Plans and the FEIS is supplemented by Appendix D which provides further information on how the travel map was developed and how access management for the Forest and Grassland will be implemented.

The access closures and restrictions, provided in the Standards and Guidelines and Travel Map, provide a range of road densities to meet a variety of management area prescriptions and user needs. In some areas, such as big game winter range, most of the roads will be closed (1 mile/section) during the winter months when the area is critical to big game. During hunting seasons a number of roads in several areas within the Forest and Grassland are closed, under the green dot system. Other seasonal and limited closures will occur to reduce resource damage, to provide for public safety, and/or to reduce maintenance costs. The road density objective under the Preferred Alternative for general forest/general forage areas will be three miles per section.

New local roads will be managed to meet identified objectives and will be closed or deactivated if there are no defined objectives for use after the initial purpose is served. Roads closed for future intermittent use (Maintenance Level 1) will be blocked to eliminate unwanted use and will receive the minimum maintenance treatment to prevent erosion. Roads with no foreseeable use will be rehabilitated to meet the prescription for the management area.

The environmental consequences of the road management direction by alternative is discussed in Chapter 4 of the FEIS and the miles of roads by category and closures are displayed in Table 2-8 in Chapter 2.

@1000-02 New Roads and Road Standards

There were 59 comments concerning new roads and road standards.

Most, including the Crook County Soil and Water Conservation District, recommended no new road construction unless absolutely necessary. The County suggested the Ochoco limit permanent road building and put more emphasis on temporary roads.

Many respondents were displeased with what they perceived to be the economic loss occurring through

the road construction program. They felt the timber companies should bear the full cost of road construction.

Some encouraged searching for new harvest methods that would not require road building.

Those that did not recommend a halt to road construction for the most part suggested that the Forest lower its road standards to lessen the impacts on wildlife of high-standard roads. Some, on the other hand, wanted a greater degree of maintenance on existing roads and higher standards for new roads.

One person noted that in the draft Plan and EIS, *forest access did not decrease significantly even in* those alternatives with lower harvest levels.

Response:

The amount of new construction and reconstruction of existing roads is closely related to timber harvest. The amount of road needed per acre harvested varies in response to many factors, e.g., logging system used, topographic relief, and environmental factors. Several years ago the Forest Service adopted new guidelines for establishing road design standards by service level which assures that the minimum standards to serve the resource will be utilized. All long-term roads are used for more than one year. Some of the road costs can be considered an investment for future uses.

Roads normally deteriorate because of use and weather impacts. This deterioration can be reduced through adequate maintenance or restriction of use. All system roads will be maintained to at least the basic custodial care required to maintain drainage, protect the road investment, and minimize damage to adjacent land and resources. This level is the normal prescription for roads that are closed to traffic. Higher levels of maintenance may be chosen to reflect greater use or resource protection.

New roads and total miles needed for all alternatives are discussed in Chapter 4 of the FEIS.

Subject Area 1100 - Protection

@1100-01 Toxic Chemicals and/or Catastrophic Accidents

Four respondents, including the EPA, noted that none of the draft proposals addressed toxic chemicals and/or catastrophic events such as oil spills. The respondents wanted to know if the Forest had a plan for such events, and whom to contact in an emergency.

Response:

The Forest Plan does not deal directly with this concern. Instead, the Plan is tiered to the Pacific Northwest Region's Environmental statement for Vegetation Management (1988), and all actions under the plan are required to be in compliance with NFMA regulations 36 CFR 219.27 (b). In addition, all Federal agencies are required to be in compliance with the Renewable Resource and Conservation Act (RCRA), and the RCRA amendments. The Forest also has an emergency spill plan which relates not to activities conducted by the Forest or Grassland, but to transport of materials on highways through the area.

Emergency procedures and RCRA requirements for spill maintenance plans have been incorporated into the final documents. See Appendix H of the Forest Plan and Appendix L of the Grassland Plan.

Subject Area 1110 Fire

@1110-01 Fuel Buildup

Eighteen letters were received with comments on fuel buildup. Most of the respondents were concerned that allowing slash and down material to

accumulate creates a fire hazard. Most encouraged allowing firewood collection to help mitigate the dangers. Many commented that grazing should be allowed over much of the Forest to cut down on fuel buildup.

Even-aged management was also targeted by some as a cause of serious fire hazards. Some felt that selective cutting would reduce the danger, stating that organisms of like age are more susceptible to disease and fire.

Some respondents felt that any areas closed to logging are fire hazards. They recommended that dead and diseased trees be harvested wherever they occur to reduce fire dangers.

One respondent suggested leaving more fuel for risk analysis. This, according to the reviewer, would help the Forest to formulate a better plan to coordinate fuels management.

Another respondent commented that broadcast burning is permissible for disturbed, undisturbed, and surface-buried cultural resource sites, but was left out of the fuel treatment options for buried disturbed sites.

One reviewer was confused by the tables and text covering disposal of Forest residues by burning. This person wished to know what the common denominator is between particulates, described in "thousand tons;" slash burning, described in "acres," and salvage firewood, described in "cords."

Response:

The Forest shares the concern over potential fire hazards mentioned in the above comments. New sections have been added to the FEIS and Forest Plan which help address this issue. These will help guide the forest residue management.

Forest residues accumulate through natural processes. These conditions will be monitored and when conditions approach maximum acceptable levels identified in each management area prescription, appropriate treatments will be instituted. This will maintain a mosaic of residues providing an acceptable fire risk and meeting other ecosystem needs.

Activity residues hazard abatement is an integral part of project level planning and is one of many residue management goals considered in the Forest's Residue Management Plan.

While the Forest will have a younger average stand age under a managed situation, the mosaic of stand ages will help prevent catastrophic insect outbreaks, disease, and the resultant increased fire hazard associated with large areas of older stands. Younger stands certainly are at higher risk in the event of fire, but only if the residues are not managed at an acceptable level of risk

The cultural resource oversight has been corrected in the discussion on fuel treatment options for buried disturbed sites (see Chapter 4 of the FEIS).

The common denominator requested is forest residues. The first two subjects (particulates and slash burning) are related in that the second produces the first. They are discussed together in the section on Air Quality in the FEIS, Chapters 3 and 4. The change in amount (acres) of burning over time gives an indication of expected change in atmospheric visibility due to the amount (tons) of smoke particulates produced. The third subject, salvage firewood, is a method of residue treatment emphasizing utilization rather than disposal, and the most common unit of measure is cords.

The Forest has developed additional direction in new sections in the FEIS and Plan which deal with Residue Management. A number of new analysis techniques are coming on line which will assist in the risk analysis as well as the economic analysis included in such decision making. See FEIS Chapters 3 and 4, and Forest Plan Chapter 4 for further discussion.

@1110-02 Prescribed Burning

Nineteen letters contained comments on prescribed fire. The majority of the respondents were in favor of continuing or even expanding the prescribed burning program, stating that the Forest and Grassland are in dire need of large-scale treatment. Some included Wilderness and Research Natural Areas in

their recommendations. In addition, many felt that the Forest Service should allow naturally occurring fires to burn out on their own.

Others, however, registered opposition to the prescribed fire program They felt that slash burning destroys many trees unintentionally, and that broadcast burning is simply too destructive to soils and vegetation. Some stated that prescribed fire encourages non-native plants to be introduced to burned areas.

One respondent suggested removal of only 25-40 percent of the volume per acre than is the present practice, and treatment of the resultant slash. This, it is felt, will be far less disturbing than removing 12-20 MBF per acre and burning 35-60 tons per acre of slash all at once.

One respondent noted that the old growth definition does not include an understory description, and that it is necessary to know what structural characteristics and vegetation the Forest is attempting to produce within each plant community before applying a forage and/or fire treatment prescription.

Response:

Fire is a natural process of recycling and renewal in local ecosystems. However, because of the random nature of its occurrence it sometimes conflicts with the timing of management Realizing late in this century the importance of fire in ecosystem maintenance and its usefulness as an economically efficient means of vegetation and residues control, the Forest now "prescribes" the use of fire in terms of when and where it will occur.

Used initially in reducing activity fuels, it has become widely used locally in treating "natural" fuel accumulations in order to mimic historic fire cycles which allowed for the establishment of "large" diameter old growth pine stands on so much of the Forest.

The discussions on these subjects in the FEIS, Chapter 3 and 4, and in the Forest Plan, Chapter 4, have been expanded in response to the above comments to clarify the points raised. New sections dealing with Forest Residues also relate to some of the comments above and can be found in FEIS Chapter 4, and Forest Plan Chapter 4. The detailed decisions on the proper application of prescribed fire are carried out on a case by case basis in the project planning environmental assessments under the broad guidelines of the Forest Plan. See Chapter 4, Forest Standards and Guidelines, and Management Area Prescriptions.

Prescribed fire will not be used in mixed conifer old growth until adequate research provides the desired vegetation description. This will most likely occur within the next planning period (next ten years) and thus will not be a major departure from experienced fire history in this type of stand Moderate use of prescribed fire is being allowed in ponderosa pine old growth since this species is seral and will disappear in the absence of fire (see Chapter 4 of the FEIS). It is likely that a variety of treatment prescriptions will evolve due to the different vegetation types involved.

@1110-03 Risk Management

There were four letters with comments on fire suppression The respondents were unanimous in suggesting that all areas on the Forest should be open to road building for fire access. One reviewer stated that areas for wildlife winter range without roads become fire hazards and will prove difficult to protect from fire.

Response:

Fire suppression access has been considered in the transportation planning for the Forest and is commensurate with the values at risk and the management objectives of each Management Area.

The Forest has developed additional direction in new sections in the FEIS and Plan which deal with Residue Management. A number of new analysis techniques are coming on line which will assist in the risk analysis as well as the economic analysis included in such decision making. See FEIS Chapters 3 and 4, and Forest Plan Chapters 2, 3, and 4 for further discussion.

@1110-04 Fire Protection

Three respondents, among them the Oregon State Forester, commented on fire protection.

The State Forester remarked that the Oregon Department of Forestry supports the Forest Service's policy of applying aggressive suppression action to wildfires that threaten life, private property, public safety, improvements, or investments.

One reviewer stated that the Plan needs to place more emphasis on low-impact Wilderness management, including fire control. The person stated that he was angry to find a cat line in the Bridge Creek Wilderness Area that had been used for fire suppression.

The third respondent stated that the 100 acre per decade maximum for burning seemed arbitrary and recommended that acreages burned be decided on a case-by-case basis.

Response:

Protection of life, property and investments is a common concern of all wildland fire protection agencies and will continue to be the Ochoco's primary policy direction to minimize losses and cost of suppression.

The fireline mentioned in the Bridge Creek Wilderness was cut several years prior to the designation of the area as wilderness. Since that time rehabilitation requirements have been instituted on all such suppression techniques, even those outside of wilderness areas. This fireline has been brought to the attention of the District, and rehabilitation will be carried out as necessary.

The maximum acceptable burn acreage per decade is a function of the size of the Management Area, the probability of occurrence of a fire at Fire Intensity Level (FIL) III in that Management Area, and, given that occurrence, the likely area burned at that FIL prior to containment of the fire. It also takes into account how much impact such an area of intense burn will have on the management objectives for the Management Area in question. Each fire, as it occurs, will be dealt with on a case-by-case basis in comparison with the objectives (including maximum area at FIL III per decade) for the Management Area(s) involved. See FEIS Chapter 4, and Forest Plan Chapter 4 for further discussion on this topic.

Subject Area 1120 Pesticides

@1120-01 Prohibition

Three letters were received with comments on pesticide and herbicide use. Concerns were voiced about the effects of pesticide use on non-target species and long-term effects on the environment. Some felt that pesticides and herbicides should be prohibited, or that if they do again become legal, a rigorous set of application guidelines and monitoring safeguards should be implemented.

Response:

In December of 1988 the Regional Office published an Environmental Impact Statement entitled "Managing Competing and Unwanted Vegetation." This document sets forth the direction for all National Forests in the Pacific Northwest Region for Vegetation Management. Pesticide and Herbicide use are dealt with in that EIS, and Vegetation Management activities on the Ochoco will comply with those guidelines. The projected outputs from this plan do not depend on the use of herbicides, although the availability of herbicides would lower reforestation costs in some cases. Insecticides may be used to control insects but this is not the preferred method. See response to Insects and Disease, and also the Forest Health section in Chapter 4 of the Plan.

Subject Area 1130 Insect and Disease Control

@1130-01 Diseased Trees and Insect Control

There were many comments on the management of the Ochoco National Forest as it related to insects and disease.

Thirty-four letters contained comments on insect and disease control. Among them was the letter from the Oregon State Forester.

Most of the comments, including that of the State Forester, were to the effect that the Ochoco should place more emphasis on insect and disease control. Some felt that controlling damage from disease and insects is vital to maintain sustained yield. Others stated that disease will spread if action is not taken quickly.

Some respondents were against clearcutting because they felt that even-aged management contributes to insect and disease problems.

One individual felt that the public should be educated concerning the need to depart from normal harvest practices when dealing with insect and disease problems.

Response:

The effects of each of the alternatives on insects and disease are covered under "Forest Pests" in Chapter 4 of the FEIS. The Forest PLan has been rewritten to include Standards and Guidelines for treating each major forest pest group (see Forest Health, Chapter 4). These guidelines are specific to each Management Area. The actual on-the-ground activity will depend on a project-level analysis which will be guided by above direction. These and the Timber guidelines encourage the prompt harvest of dead and dying material when compatible with direction for the management area, and allow varying the harvest level when necessary as a result of catastrophic events.

The basic strategy for insect and disease control is to prevent damage by managing stands through species and stocking manipulation. Diversity in size and species is one of the keys to this (see discussion on Diversity) It will take several decades to get stands in the desired condition, but in the long run this should prove the most effective control. Spraying or other direct control measures may be used if within the direction for the management area and supported by an EA or EIS. This would be a back-up measure, and spraying has been planned or included in costs considered necessary for projected outputs. There are Entomologists and Pathologists available to help in on-site evaluation and/or treatment recommendations.

Effects of insects and disease on timber yields have been incorporated in the yield tables by basing yields, including mortality and defect, on historical data. The effects of individual pests cannot be isolated, nor will this reflect the loss that will occur in a specific year, but should be a fairly accurate estimate of losses over a rotation.

Subject Area 1140 Law Enforcement

@1140-01 Enforcement

Two comments were received concerning Law Enforcement.

One respondent felt the best way to improve conditions for big game would be to enforce existing laws, especially those dealing with road hunting and using CB radios to track animals, and to increase fines for poaching

The other respondent wanted the entire Forest opened up to hunting. This person suggested a less complicated program of law enforcement, desiring a

more positive relationship between Forest Service personnel and the public. The individual also stated that the Forest should review some of its rules for appropriateness.

Response:

Poaching, road hunting and the use of radios are violations of existing state game laws. The Forest Service has a Memorandum of Understanding with the Oregon State Police, in which the role of each agency in game law enforcement is identified. In effect, it states that the Oregon State Police will have the primary role of enforcing game laws. The Forest Service agrees to monitor and report known or suspected violations.

The primary objective of any law enforcement program is to prevent violations.

One way the Forest Service attempts to do this is through public education. Another is the prosecution of those individuals found to be in violation. Most Forest Service field employees receive 40 hours of law enforcement training. The subject emphasized most heavily is making a law enforcement contact in a positive, safe, effective manner. Like all law enforcement agencies, the Forest Service reports violations to a prosecuting body, in this case the U.S. Attorney's Office. Appropriate action is then determined by that office. The Forest Service has no control over actions taken by the U.S. Attorney's Office, but Forest Service personnel are working with that office to improve the situation.

Most Forest Service regulations are imposed by Congress or by the Secretary of Agriculture They are therefore outside the scope of the Ochoco National Forest Plan. Occasionally, the Forest Supervisor may impose specific, local regulations. These are intended to assist in managing unique, local problems which may arise. These generally relate to special fire prohibitions or road closures for resource protection purposes, and are required to be reviewed annually.

Subject Area 1200 Economic Considerations

@1200-01 Local Economics

One hundred respondents, including the Oregon Labor Market Economist, said they did not favor the Preferred Alternative, or any alternative that would harvest less than 130-137 MMBF, because they believed that it would cause significant problems due to unemployment, low payments to counties, and other economic problems.

Response:

The Ochoco National Forest compared the results of all the alternatives to the "current situation," that is, an average picture of the communities over recent years. The results do not predict any major changes under the Preferred Alternative I. In fact, the prediction is for a slight positive change.

1200-01.1 Mill Modernization

Seven respondents pointed out that the wood products industry has been, and is, modernizing. The State Economist states that any economic estimates which are based on old data regarding technology are questionable estimates. Some parties say that an attempt to maintain employment levels by increasing harvest levels will not work.

Response:

The Ochoco National Forest has added a section to Chapter 3 of the FEIS which discusses mill modernization. The IMPLAN model has also been updated to reflect 1987 mill performance (see Appendix B, Section 5).

1200-01.2 Timber Sale Projections

The State Economist and the Director of the State Economic Development Department questioned whether the projections from timber sale revenues might be too high. One question was whether all sales would sell. Another question was when the harvest would occur and the receipts come in.

Response:

From past experience, the Ochoco projects that it will have no problem in selling its sales. Receipts may come in at uneven rates, but the average receipts are accurate.

1200-01.3 Errors

The State Forester pointed out that in DEIS Table III-4, there is an error in Deschutes County's population. The population of 65,300 is reported as 15,300.

Response:

The error has been corrected in the FEIS (FEIS Chapter 3).

1200-01.4 Data/Analysis

The State Forester's Office commented that DEIS Table III-4 displayed incomes for the affected counties and the State, but not the U.S. This was deemed misleading.

Response:

Information for the United States has been included in the FEIS Chapter 3 text.

1200-01.5 Data/Analysis

The State Forester's Office referred to the analysis of county economic bases as reflected in DEIS Figure III-3. The Forester wanted to know the source of the data. The Office also disagreed with the statement that combining the government and the manufacturing sectors overstated the importance of timber to the county economies.

Response:

The data is derived from the 1985 Business and Employment Outlook, JTPA Districts 10, 12, and 14. The statement which was challenged was questionable and has been withdrawn.

1200-01.6 Local Log Sales

One participant discussed the topic that Willamette Valley mills purchase central Oregon logs. The basic point was that the Forests of central Oregon are big enough to meet the needs of central Oregon, but not big enough to meet the needs of Valley mills also. Questions were asked such as:

-Why should local Forests increase harvest levels when there is no guarantee that the increase will produce local jobs?

-Could the local Forests restrict log sales as has been done in the Lakeview area?

-How can central Oregon enable its wood processing industry to compete more effectively with Valley sawmills and remanufactures?

Response:

The question of who successfully bids for local logs is a valid one. Some of the eastside Forests, such as the Deschutes NF, are more affected than the Ochoco NF, but effects on the Ochoco NF are likely to increase. Chapter 3 of the FEIS contains a discussion of the effects of the Ochoco NF statewide, as well as on local economies

The Forest participates in one program which tends to favor local firms: the small business set-aside program. The U. S. Department of Agriculture is authorized to participate in such programs with the Small Business Administration (Small Business Act, 15 U.S.C. 631). Participation tends to favor local small business because more distant small businesses are less likely to bid on sales.

The policy of the Forest Service which underlies this program is that small businesses should have the opportunity to purchase a fair share of the timber sales off National Forest lands The small business "fair proportion" of the annual timber sale program is determined by the Regional Forester and provided to the Forest as part of the timber program. The Forest Supervisor maintains a continuing record of sale volumes purchased by large and small businesses. The record provides the basis to determine if there is a need for a set-aside program in the area during any six-month period.

Speaking more generally, the Ochoco National Forest does not intend to be involved in programs which tend to favor local mills. Being a National Forest, it is obligated to all the people of the nation The needs of central Oregonians have been specially addressed in this document and in other ways, but it is not felt proper that the ONF give special preference to local residents. It is believed that the best way to serve competing bidders from near and far is to sell the timber in an open market fashion.

In a similar way, many local residents can explore ways to benefit local wood processors in competition with Valley wood processors, however, it is not appropriate for the ONF to be involved in these discussions.

1200-01.7 Departure Harvest

One respondent pointed out that 25 percent moneys are assumed to rise and fall with timber revenues; whereas the two do not necessarily move in the same directions or at the same rates. The comment was directed toward the fact that the DEIS Preferred Alternative was a Departure; it said that the 25 percent moneys, in particular, would decline in the third decade and beyond, depriving the communities of a stable economic base.

Response:

It is true that 25 percent moneys may move differently than timber revenues. Elsewhere in this Appendix, there are comments regarding the Departure, and also concerning the Forest's commitment to long term community stability. See Forest responses to Departure Harvest under Timber, and responses to Community Stability under Social Considerations.

1200-01.8 Small Business Impacts

One reviewer stated that the economic impact of the proposed Plan is understated, especially for small businesses. He stated that more analysis of the effect upon small businesses is required by Public Law 96-354, the Regulatory Flexibility Act.

Response:

Public Law 96-354 applies to governmental agencies who generate regulations which might apply to small businesses, small not-for-profit organizations, or small governmental bodies. Since the Forest Service does not regulate in this manner, the law does not apply to it.

Nevertheless, the Forest Planning process under the National Forest Management Act has much in common with the provisions of Public Law 96-354. Regulatory agencies publish proposed new regulations in the Federal Register; this corresponds to the Draft EIS which was released in 1986 and which was also referred to in the Federal Register. Comments are solicited from the public in both processes. And those comments help to shape the regulatory agency's final regulations, just as the Final EIS is shaped by the comments listed in this Appendix.

@1200-02 Economic Impacts

There were 23 comments addressing the issue of employment multipliers. The concern was that the multipliers used were too low. The Ochoco NF multiplier was said to be only 1.5, when comparable multipliers range between two and three.

Two respondents made their own estimates of the effect of the Preferred Alternative. The DEIS estimated that the Preferred Alternative would pro-

duce an additional 63 jobs and an additional $0.3 million in payroll. Brian Long, an economist hired by the Central Oregon Economic Development Council, projected a loss of 289 jobs and $5.8 million. (Mr. Long's estimate of the combined effects of the draft plans of the Ochoco NF and the Deschutes NF was a loss of 317 jobs and $6.5 million). Jim McClain of the Northwest Forest Resource Council predicted a loss of 118 jobs and $2.0 million. Other reviewers quoted these figures and preferred them to the Ochoco NF estimates.

State officials voiced concerns about the multipliers. Two Labor Economists, the Director of the State Economic Development Department, and the State Economist all said that the multiplier should range between two and three. The Director of the State Economic Development Department predicted a loss, not a gain, in employment.

Response:

Two questions are addressed here. One is, What is the correct employment multiplier? The other is, What will be the effect of the Draft Preferred Alternative on income and employment?

The DEIS never reported a value for employment multipliers. The multipliers as computed by others were deduced from data in the following tables:

Table IV-2--Employment changes by alternative, decade 1;

Table IV-3--Employment changes by alternative, decade 2;

Table B-V-3--Employment changes by alternative by county, decades 1 and 2; and

Table B-V-1--Employment per unit of Forest output.

Table B-V-1, for example, states that 1 MMBF of ponderosa pine will produce eight wood products jobs and four jobs in other industries. The concern expressed is that this implies an employment multiplier of 1.5. This is perhaps a reasonable conclusion from the information given However, the line labels in the table were misleading. The table, when correctly labeled and correctly understood, does not contain data which could be used to compute a multiplier.

To understand the question of multiplier values, it is first necessary to define what a multiplier is. IMPLAN (or any input/output model) classifies employment into the following three categories.

Direct employment--the employment involved in creating products which will be exported from the local economy or purchased for final consumption within the local economy. Examples would be exported molding, exported 2x4's, or 2x4's purchased locally for new construction. For the local wood products industry, 99+ percent of employment is involved in preparing exported products.

Indirect employment--the employment involved indirectly in creating the above products. Millwork operations buy dimension lumber from sawmills, who buy logs from loggers, who buy gasoline from local operators, and so on.

Induced employment--The employees involved in the above activities will purchase goods and services for their households, thereby producing employment in trade and service sectors.

Any change in employment will produce direct effects, indirect effects, and induced effects. The definition of the input/output model multiplier is critical. it is the ratio of the total effects to the direct effects.

The terms "direct effects" and "indirect effects," as defined above, are different from the way in which a person might use them in a non-technical sense They are also different from the way that they are used in Tables IV-2, IV-3, and B-V-3. For Alternative E-Departure, for example, the timber harvest declines slightly. This results in some lost jobs in the wood processing industry, which in turn causes other jobs to be lost. Tables IV-2, IV-3, and B-V-3 refer to these losses as "direct effects" and "indirect effects," but the use of these terms is technically wrong. The change in the wood processing industry, here called "direct effects," is actually the sum of the direct effects and the wood processing portion of the indirect effects (about two-thirds of the total

indirect effects). This change should be re-labeled as "Employment Changes in the Wood Products Industry Due to Changes in the Timber Harvest Level." The change called "indirect effects" is the remaining portion of the indirect effects plus the induced effects. The correct label for this change would be "Employment Changes in Non-Wood-Products Industries Due to Changes in the Timber Harvest Level."

These terminology changes are significant. If the values reported as "direct effects" were truly direct effects, the data would indicate an employment multiplier of around 1.5. But the true direct effects are smaller than those shown, and the multiplier is therefore larger.

The same type of confusion has occurred concerning Table B-V-1. The figures in this table show that 1 MMBF of ponderosa pine produces eight jobs in the wood processing industry and four jobs in other industries. Similarly, 1 MMBF of other species produces four wood processing jobs and two other jobs. This has led some to say that the multiplier is only 1.5. But because the eight jobs include both direct and indirect effects, the multiplier will be larger than 1 5.

Employment multipliers were not shown in the DEIS. Neither was the "direct effect" data which would allow the multipliers to be computed. However, the employment multiplier, when computed, is 2.0. This is at the low end of the range mentioned by all the reviewers. Since the county economies are small, it is considered that this value is reasonable.

The second question which needs to be addressed is whether the DEIS estimates of employment change are realistic. The key question here is what harvest level should be used as a comparison point. Mr. McClain and the Director of the State Economic Development Department compared the harvest under the Preferred Alternative to the Potential Yield of 137 MMBF. Mr. Long used the 1984-1986 average level of 147 MMBF. We agree that if these were the proper levels to use, there would be a sizeable loss in employment and income. But we do not believe that these are appropriate comparisons. This question is dealt with under the topic "'Current Situation' economic level used in IMPLAN."

1200-02.1 Current Situation

When reading the following discussion it should be remembered that the DEIS was published in 1986, and the public comments were written the same year. In discussion of what should constitute the "current situation," the data used were the most recent available at the time.

Six respondents took issue with the Ochoco NF definition of a "current situation." Some respondents, including the Director of the State Economic Development Department, recommend the use of the Potential Yield level of 137 MMBF. An economist hired by the Central Oregon Economic Development Council recommends the 1984-1986 harvest level of 147 MMBF. The Oregon State Forester takes a different approach and recommends basing the "current situation" on the average 1976-1985 employment level.

Response:

This is an important question because changes in employment and income are determined relative to the "current situation." The "current situation" used in the DEIS was the 1984 harvest level of 127.3 MMBF.

The Ochoco agrees that to use a single year as the "current situation" is not appropriate. The wood processing industry has traditionally gone through cycles. In addition, in recent years, it has been affected by resource use debates, lawsuits, and other actions which affect timber harvest levels To examine a short period of time is to invite unreasonable results

The Forest does not believe that use of the Potential Yield level is appropriate because it does not reflect a "current situation." The 1984-1986 figures, though current at the time, were also known to be abnormal due to the recession recovery and the repurchase of timber under the timber buyback program. The concept of comparing to employment levels is interesting, and the long time frame is appropriate. However, employment levels include many factors beyond the control of the National Forest.

What is needed is a measure that reflects actual conditions over a period of several years -- long

enough to even out cyclical conditions or other short term effects. The ONF has chosen to use the average harvest over the years 1980-1988, which represents a harvest level of 110.7 MMBF.

1200-02.2 Recreation-Related Employment

Four reviewers, among them the Oregon State Office of Economic Analysis, the State Economist, and the State Labor Economist, said that employment gains associated with recreation -- in particular, with fishing -- appear to be too high.

Response:

An error was discovered in the Draft in the estimation of employment due to fishing. As a result, employment levels for all alternatives were too high and have been recomputed.

1200-02.3 Employment/Income Change

One comment concludes that based on DEIS figures on employment change, the figure containing the change in income is wrong. Looking at Table IV-2, the letter states that there would be 69 lost timber jobs at $24,200 per year, and 59 gained recreation jobs at $18,000 per year. The computed loss in income over one decade would be over $11 million, even before multiplier effects were computed.

Response:

Table IV-2 was misunderstood -- partially due to confusing line labels. See the section on multipliers for a fuller explanation. The change in wood products jobs would equal:

-50 (Crook County)

+23 (Harney County)

-27 Total change in wood products jobs

The jobs labeled/mislabeled as "Timber, Indirect Effects" are not jobs in the wood products industry. Rather, they are jobs in other industries which are affected by changes in the wood products industry. The total change in non-wood processing jobs is:

-19 (Crook County, "Timber, Indirect Effects")

+59 (Crook Cty, "Recreation, Wildlife and Range Effects")

+15 (Harney County, "Timber, Indirect Effects")

+22 (Harney, "Recreation, Wildlife and Range Effects")

+77 Total change in non-wood-products jobs

1200-02.4 Effects on Recreation

One reviewer questioned the effects on "recreation-related industries." The respondent pointed out that the effects included many economic sectors that were not directly related to recreation.

Response:

The line label perhaps should have been more explicit. When jobs directly caused by recreationists increase or decrease, other economic sectors are affected. The total effects caused by recreation activities were termed "recreation-related." See the discussion of multipliers for more discussion of problems with line labels in some tables.

1200-02.5 Non-Cash Benefits

One person wrote that non-cash benefits such as recreation, fishing, and hunting were given misleading high cash values and included in the economic analysis. Two respondents believe that the "amenity" values are too low.

Response.

The cash benefits associated with amenity outputs are derived from gains or losses in jobs and the income resulting from those jobs. Therefore, they are true cash benefits.

The derivation of these benefits is an involved matter. The Forest Service started with an economic model with 528 economic sectors. For a given activity -- twelve hours spent hiking in Wilderness, for example -- the anticipated expenditure for each sector was computed. (For example, twenty cents will be spent on dairy products.) For each area analyzed -- for example, Crook County -- expenditures were totaled for all the existing economic sectors.

The value associated with, say, an RVD would depend on the expenditure per sector, and the criteria for including that sector's expenditures. Values can run higher or lower depending on what assumptions are made. The Forest believes that this analysis is accurate and adequate.

1200-02.6 Wheeler County

Three reviewers, including a State Labor Economist, stated that effects on Wheeler County should be computed because the 25 percent moneys are a significant contribution to the county's budget.

Response:

Wheeler County was modeled in the FEIS analysis. (See FEIS Chapter 4, and Appendix B Section 5.)

1200-02.7 IMPLAN

Three comments said that IMPLAN analysis should be redone using the 1982 IMPLAN model. The IMPLAN work was criticized because it was based on data that was as much as nine years old.

Response:

The 1982 IMPLAN model (Version 2 0) was used in the FEIS. This model incorporates various improvements over IMPLAN 1.1. More importantly, it was based on 1982 data rather than 1977 data.

The Ochoco felt that 1982 data was still not current enough for adequate analysis. Information for the wood products industry was obtained privately from the area's mills and updated to 1987. The remainder of the 1982 data were examined and concluded to be accurate enough to meet the needs of the planning process.

1200-02.8 Implan

Two respondents stated that the IMPLAN model should span Crook, Harney, Jefferson, Grant, and Wheeler counties. According to the respondents, this would allow better estimation of the effects of the wood products industries and consumer expenditures.

Response:

An IMPLAN model should determine the "boundaries" of a local economy and be sized accordingly. The Forest treated Crook County, Harney County, and Wheeler County as three distinct economies for two reasons

> Consumer expenditures are well "bounded" by county lines. Neither residents of Fossil, nor residents of Burns, do much shopping in Prineville.
>
> To some extent, county lines serve as good boundaries for the wood products industries. Little or no timber from Crook County is milled in Harney County. Nearly all the timber remilled in Harney County comes from Harney County.

It is true that wood processing stretches far beyond county lines. The IMPLAN models go to some length to capture these effects. For example, for timber harvested in Harney County, the models distinguish between the following:

> Timber milled in Harney County,
>
> Timber milled in Crook County,
>
> Timber milled neither in Harney County nor in Crook County;
>
> Timber milled in Harney County and remilled in Harney County, and
>
> Timber milled in Harney County and remilled in Crook County.

The Ochoco National Forest believes that the IMPLAN models constitute a good model of the area, and represent reality much more closely than a multi-county model.

1200-02.9 Employment Changes

One individual requested the calculation of changes in employment and income for the year 2030.

Response:

IMPLAN, like any input/output model, assumes that the economy modeled will stay the same. It allows for no technology change or any other changes in the basic industrial structure. Especially given the rapid rate of modernization in the wood products industry, the ONF does not believe that changes in employment or income that were projected out to the fifth decade would be valid.

1200-02.10 Economic Analysis

Ten respondents requested that additional economic analysis be performed. Some thought that impacts on employment and income should be done in greater detail, or that more analysis should be done. One reviewer suggested comparing employment levels to what would happen if the mills ran at full capacity. Others requested additional analysis of recreational or forage values. Still others desired additional studies on impacts on service industries and small businesses, and on county and school budgets. Some requests for further analysis related to the value of inputs such as recreation or forage.

Response:

The Forest believes that it has used appropriate values. See the section on "IMPLAN values associated with amenities" for further information on how these values were obtained.

Most of these comments request additional detail or additional analysis of the effects of the Preferred Alternative. The Ochoco National Forest attempted to present the effects in enough detail to describe the impacts of all the alternatives, including the Preferred Alternative.

1200-02.11 Economic Analysis

Two comments questioned the DEIS projection that Harney County would gain jobs during the first decade, while Crook County would lose employment. One of these comments came from the State Economist.

Response:

In the new Preferred Alternative, which schedules harvests differently, there is no significant difference between the effects on Crook and Harney counties.

1200-02.12 Capacity

Four letters referred to capacity. One recommended that mill capacity be considered in estimating impacts on employment

Response:

Mill capacity has no direct effect on employment. It represents no historical level of employment and is therefore not an appropriate number to use for a "current situation" comparison. The subject of mill capacity did not play a part in the selection of the Preferred Alternative.

@1200-03 National Economics

One comment expressed the concern that while PNV calculations seem to be major influences on FORPLAN outputs, they are not responsive to the ICO's. This respondent requested that the relationship of FORPLAN PNV calculations to the national concern of economic efficiency be addressed in depth.

Response:

Economic efficiency is a major planning criteria addressed in NFMA and its implementation regulations. The major use of PNV is not the control of

FORPLAN outputs, nor is it directly related to ICO's. PNV is used 1) to ensure that scheduled activities and practices are cost effective, 2) to select the most efficient activities and practices to achieve a set of goals and objectives, and 3) as one of the decision criteria in deciding which alternative best maximizes Net Public Benefits.

@1200-04 Timber Economics

One comment was received stating that PNV analysis promotes the liquidation of old growth ponderosa pine by discounting future value.

Response:

Of all benefit/cost analysis techniques, Present Net Value (PNV) is considered the most appropriate for land management problems of this scale. Economic efficiency analysis using PNV does associate a time value with money. Put another way, a dollar today is worth more than a dollar ten years from now. As a result, given the choice of harvesting a high value product today or in the future, PNV analysis will choose to harvest today.

In the DEIS, only Alternative H-Departure was designed and developed with the main objective of maximizing PNV. The objectives of all other alternatives were based on public issues, management concerns and opportunities (ICO's). The maximization of PNV was the criterion then used to assure that each alternative had the most economically efficient combination of outputs and activities needed to meet its objectives.

In the FEIS, three alternatives (I, B-Modified, and C-Modified) incorporate uneven-aged management for ponderosa pine. Alternative I also incorporates extended rotation ages for ponderosa pine. These objectives slow the rate of harvest for large diameter pine and increase the size of pine that will be managed in the future.

Refer to Chapter 2 of the FEIS for a description of the Alternatives and to Appendix A of the FEIS for a description of the quantified indicator of the issues.

@1200-05 Multiple Use Management

One comment expressed the concern that PNV is a valid comparator only if it can accurately account for all priced and unpriced, market and nonmarket, and direct and indirect costs and benefits. The respondent stated that the costs and benefits described as being evaluated in the economic analysis are not all significant factors applicable to decisions based on multiple use resource management of public lands.

Response:

It is true that all criteria important to the decision maker are not part of economic efficiency analysis (PNV). Appropriate methods to quantify certain nonpriced values (for instance, visual quality, old growth, and snag habitat) have not been developed. These values need to be considered in qualitative and subjective terms.

PNV is considered a valid comparator because it puts many of the priced resource values, both market and nonmarket, on similar terms for the purpose of comparison. However, both market and nonmarket priced resources have factors besides economic considerations. As with unpriced values, priced resources should also be evaluated qualitatively. Therefore, PNV should be, and is, only one of the criteria used to evaluate resource outputs.

NFMA regulations charge the Forest Service with identifying the alternative which comes closest to maximizing net public benefits (NPB). NPB represents the overall value to the nation of all outputs and positive effects (benefits) whether they can be quantitatively valued or not. Net public benefits include both priced and nonpriced resource outputs, less all costs associated with managing the area All priced outputs and all costs associated with managing the Forest are included in the calculation of PNV. The net subjective values of the nonpriced outputs must be added to this in order to arrive at the overall NPB of an alternative. The Forest then chooses the alternative with the greatest NPB as the Preferred Alternative

Appendix B, Section 8 of the FEIS displays the

major criteria used to compare the alternatives' responsiveness to the ICO's. PNV is only one of these criteria.

See Forest Response to Multiple Use Comments, 0350 and 1300-10.

Subject Area 1215 Social Considerations

@1215-01 Future Generations

Thirty-nine respondents commented on the ecological and/or social need for old growth, older trees, wildlife, streams, recreation and wilderness. The Columbia River Inter-Tribal Fish Commission stressed the need for fish habitat. Many reviewers feared that poor decisions would harm their resources for future generations.

Response:

The Ochoco National Forest is aware of the need to manage all the Forest's resources with long-range goals and objectives in mind. The Ochoco National Forest has attempted to meet these goals through the forest planning process, and will continue to plan for the future of all Forest users, keeping in mind the needs and desires of all Forest users.

@1215-02 Community Stability

Ninety-six respondents, among them the Crook County Soil and Water Conservation District, said that a primary concern in Forest Planning should be the economic stability of the affected communities.

Response:

Community stability is a specific requirement for the selection of the Preferred Alternative.

1215-12.1 Community Stability

Eighty-two respondents stated that a decline in harvest levels would undermine community stability, both now and in the future.

Response:

The Forest recognizes the importance of community stability. Community and economic stability concerns were specific considerations in the development of the Preferred Alternative (Chapter 2, FEIS). The results of all the alternatives were compared to the "current situation," that is, an average picture of the communities over recent years. The results of this comparison predict a slight increase in benefits to local communities under the Preferred Alternative I over the present.

@1215-03 Lifestyles - Elderly, Handicapped

Fifteen respondents said that more consideration should be given to the elderly and handicapped. (Many of these comments were made in connection with access to Lookout Mountain, and some of the comments referred to snowmobiles. Refer to these specific discussions in the Recreation section.)

Response:

The Forest Service has been seeking to increase the opportunities available to elderly and handicapped people Forest offices have been barrier-free for several years, and now barrier-free facilities are being provided on the Forest and Grassland.

The ONF has provided barrier-free day use facilities at the Walton Lake area. By summer, 1989, a barrier-free fishing platform is scheduled for completion at the lake. The Forest and Grassland Plans will provide other barrier-free trails and campsites in future years.

@1215-04 Lifestyles

Two respondents stated that firewood availability is essential to their way of life.

Response:

Firewood levels will be difficult to maintain over several decades (see Chapter 4 of the FEIS for details on firewood and how it relates to other activities and goals). Nevertheless, the ONF recognizes the historical, current, and future importance of firewood and will attempt to meet that need. See response to Firewood comments, 0750-01.

@1215-05 Lifestyles - Native Americans

One respondent questioned whether the predicted effects of the alternatives on Native Americans and Hispanics would in fact occur. He stated that, in Harney County, only five percent of Native Americans were employed in wood products jobs, and a similar situation existed for Hispanics. In addition, the respondent claimed, less than three percent of minority people would be affected by increased federal budgets under the EEO program.

Response:

The Forest has reviewed its data and it appears that the above comments are accurate for Harney County, and for Crook County as well. Comments relating to the EEO program have been modified, and the rest of the predictions that were on DEIS pp. 102-103 regarding employment effects on American Indians have been deleted in the FEIS.

@1215-06 Taxes

One hundred sixty-one respondents said that they did not want any alternative that would increase taxes or decrease income.

Response:

The ONF compared the results of all of the alternatives to the "current situation," that is, an average picture of the local communities over recent years. The results predict a slight increase in income under the Preferred Alternative (I), and the Forest can see no reason why this alternative would cause taxes to increase.

Subject Area 1230 Budget

@1230-01 Budgetary Concerns

Two respondents expressed concern about the large increase in proposed budgets over historic levels.

Response:

The Ochoco National Forest understands that the large difference between the planned budget amounts shown in the draft and the average budget levels of the past may seem unreasonable. Those differences are part of the reason that our process included the use of a "draft." The information was a first attempt to figure the costs of all the variables included within the document for such a long time frame. In this effort each resource area staff was asked to provide the true cost of the total effort required to insure the highest quality products and services. Allowing for factors including federal budget levels, inflation, consumer price indexes, wage rates and emerging technological advances made some inputs hard to substantiate in the early phases. With implementation some of the figures will undoubtedly fluctuate, but the experience will give the Ochoco a sounder basis for comparison.

See Chapter 5 of the Final Forest Plan for Budget Proposals.

@1230-02 What if the Proposed Budget Fails to Materialize?

Sixteen letters contained comments regarding effects of federal budget practices on Forest budgets.

Several references were made to the Gramm-Rudman act and how it may affect funding for the Forest Service. In particular, the viability of non-revenue-generating projects such as water development, range and forage production, fisheries, and trails were questioned. Some suggested that the Ochoco attempt to maximize receipts while providing a sustained yield in order to offset future budget constraints.

Many other respondents were concerned about future availability of funds. Several asked which programs would be cut or reduced if funds were not forthcoming from Congress. One reference was made to Region 4 National Forests in Idaho which have a 25 percent constrained budget alternative in their DEIS.

It was felt that the Ochoco's planning documents failed to consider the possibility of future cutbacks in funding in any of the alternatives.

Particular areas of concern were the budgeting of reforestation projects and forest recreation.

CRITFC recommended that timber and grazing quotas be tied to both budget and environmental goals, so that if either of the latter were not met, the allowable cut and AUM's would drop respectively.

Response:

As with all agencies of the Federal Government, the Ochoco National Forest is subject to varying budget levels based on national economic conditions. These budget levels are submitted to Congress as part of the program for the United States Department of Agriculture. Congress sets the final program dollar and output levels for all Federal Agencies.

To prevent wide swings in any agency's program, the Congress requires a range of opportunities to consider for funding in any individual year. The long term nature of our planning effort is really a plus in displaying this range of opportunities on a long term basis. This process is called the PROGRAM BUDGET.

Nationally the program budget process is an incremental process designed to provide the budget information necessary to implement Forest Plans within various constrained funding levels and/or rates of implementation. Each Forest submits a level known as "Implement Forest Plan" for a specific year and the total need for the decade. Forests are not constrained in funding; however, they must be able to accomplish implementation within current work force, skills, and environmental requirements. Forests also submit a list of programs or projects that can be foregone. This list of programs can be up to a forty percent reduction in individual years and includes an accelerated program of up to ten percent. These lists are used for priority setting to develop program levels to meet Regional constraints. The Regional Office then submits these varying levels to the Washington Office Headquarters. Typically five to seven levels are submitted. Forest plans will be implemented to the extent practical within funding constraints and targets tied to plans submitted to the Washington Office. Each Forest's information goes forward to the Washington Office Headquarters for use in the Explanatory Notes that are sent to Congress. This program is updated to better reflect the national and local economic conditions each fall.

Using a broad spectrum of alternatives, long time frames, and detailed information produces a product that negates wide program swings in any individual year, but allows Congress to adjust national budgets to meet the nation's economic condition. In the case of the Forest Service, Congress can do this with detailed knowledge of economic opportunity and resource effects.

See Chapter 5 of the Forest Plan for details concerning Budget Proposals.

@1230-03 Livestock Concerns

One individual cited an article in *Fishing and Hunting News* magazine which stated that the Ochoco National Forest's Range Management Program loses approximately $360,000 per year. The reviewer questioned the proposed increases in Range expenditures in the DEIS in light of this deficit.

Response:

The figures available when the Ochoco National Forest published its draft planning document did not contain adequate data to do accurate cost benefit analysis. The Forest Service began to address this problem area in cooperation with the General Accounting Office as directed by Congress in October 1984. The initial effort is detailed in "TIMBER SALE PROGRAM INFORMATION SYSTEM" (TSPIRS), Final Report to Congress. This program systematically addressed Forest Service cost centers to identify elements similar to private industry. This resulted in a financial statement that provides a clearer look at investments, operation costs and revenues in a short- and long-term framework. The process presents a consistent depiction of the cost/benefit relationship. This "new" tool provides an opportunity for the Forest Service manager to invest dollars where the greatest benefit is available. The success of this program has led to "All Resource Accounting." The concepts refined in TSPIRS are now being applied to all resource areas. Reports should be available in 1990 or 1991.

Even though the returns to the Forest Service from grazing fees do not cover administrative costs, the benefits to the local economy are deemed to outweigh those costs. All programs administered by the Forest Service do not necessarily make a profit, nor would it be practical to expect them to.

See Chapter 5 of the Final Plans for details on budget proposals.

Subject Area 1275 Indian Rights

@1275-01 Rights Adequately Addressed

One respondent felt that the issues important to Native Americans had been adequately addressed in all the alternatives in the DEIS. The observation was made that since less than five percent of the Native American workforce is employed in timber-related jobs, the likelihood was low that Native Americans would be affected by any of the alternatives in terms of employment.

Response:

Five percent may be the national average, but in Crook County the percentage is much higher due to the presence of Warm Springs tribe members.

In addition to the relationships between Native American employment and harvest levels of the different alternatives, the ONF tried to address Indian treaty rights, the American Indian Religious Freedom Act (AIRFA), cultural resources and burial sites with the rights and interests of the Native American community in mind. As the Forest and Grassland Plans are implemented, the ONF encourages the public to continue to assist us in meeting treaty obligations, handling AIRFA issues, identifying cultural areas important to Native Americans, and providing input to all cultural resource management activities.

Subject Area 1300 Planning Comments

@1300-01 Planning

1300-01.1 Planning in General

There were 59 comments on planning in general.

Some reviewers felt that the Forest has been managed well in the past and that this planning process is merely changing for the sake of change. They wanted the Ochoco to find an acceptable plan and stick with it.

Many were displeased with the bulk of the DEIS and Draft LRMP. They felt that the documents were wordy and redundant and that the public was not given adequate time or notice to review the DEIS. The planning documents were also said to be far too complex (especially the sections on Economics and FORPLAN modeling) for the average reader to grasp.

Several people stated that the analyses were flawed, or that the quality of work in preparing the plan was poor. Some claimed that data were omitted or conclusions did not follow from the information presented.

Others felt the process was adequate, and that the documents were professional and well done. Several complimented the ONF on the DEIS and Draft Plan.

Some commented on the Forest Service personnel who worked on the plan. A few felt the document was a waste of money and a way to "make work" for Forest Service employees. Others thought the Ochoco could be run better with fewer employees. Still others stated that they were confident the personnel now in place would come to the best conclusion for all concerned.

There were also a few comments urging a plan that would benefit the majority.

Response:

Planning on the National Forest is directed by law under the National Forest Management Act of 1976. Other laws relating to management of resources on the National Forest also contain provisions that are required to be incorporated into National Forest Planning; for example, the National Environmental Policy Act of 1969, Endangered Species Act of 1973, Wild Horses and Burros Protection Act of 1971, Clean Water Amendments to the Federal Water Pollution Control Act of 1972, etc. The process and procedures for National Forest land and resource management are described in part by Federal Regulations CFR part 219 - Planning, the Forest Service NEPA implementation regulations, policies, and procedures; FSM 1900; and specific procedures, policies, and guidelines contained in Forest Service manuals, handbooks and the 1984 Pacific Northwest Regional Guide.

The subject of planning for management of the National Forest resources is by nature a large, complex and technical undertaking involving many disciplines and varied political, public and legal interests, which requires dealing with a wide range of natural resource issues over time. It follows that planning for the National Forests requires, by law and regulations, following certain procedures. Documentation of information, processes, results, and decisions is one of these procedures. Satisfying legal requirements sometimes results in redundancy and the structuring of documents in a manner which may not always contribute to ease of understanding or readability.

Given the above comments on planning document preparation and format, complexity can be expected to vary based on the particular individuals, interest groups, or agencies reviewing them. Summaries, tables of content, indices, figures, tables, and glossaries have been included to assist document reviewers. Materials and documents were edited to assist readability and reduce volume. A reviewer's guide was also published to assist readers. Intentions are to continue to improve readability and understanding in the FEIS/LMP.

1300-01.2 Planning Analysis

Six public responses, including that of the U.S. Department of the Interior, commented on the analysis issue of the planning process.

Some felt that given the limitations of current scientific knowledge and computer technology, scientific uncertainty is a fact of life in National Forest Planning. In addition, some stated that attempting to combine objective, quantifiable resource data with subjective values and public interests invalidates the modeling process. They believed that subjective values have no place in computer modeling.

Some comments indicated that the DEIS should be more understandable in its descriptions of modeling used to evaluate various solutions, more explicit as to the value of linear programming in making decisions, more accessible in its use of "planning documents" which were not provided to reviewers, and should use more widely accepted meanings of English words and phrases.

The U.S. Department of the Interior stated that the Plan should make it clear that the development of new research questions and methods will, in most cases, not be a consequence of project level identification and avoidance activities. They stated that it will come largely through broad-based planning studies, non-project survey, and data recovery projects.

The Office of Economic Analysis stated that each Forest should circulate its alternatives for comment prior to making computer runs. This, they feel, will allow for a cost-effective method of examining a wider range of alternatives.

Response:

The planning process data base and modeling assumptions are described in detail in Appendix B of the FEIS. Additional information is contained in the Planning Records on file at the Forest Supervisor's Office in Prineville, Oregon.

1300-01.3 Planning Coordination

Some letters, including that of the Grant County Court, stated that they would like to see more coordination and cooperation in planning between adjacent Forests. The Grant County Court recommends that no single Forest Plan be implemented until all area Plans have been finalized.

Reviewers noted that in order for State agencies to agree on an alternative which satisfies their concerns, the alternative must recognize and incorporate State objectives utilizing statewide programs and policies. They feel, therefore, that the alternative must consider the effects, on a regional basis, of implementation.

The Oregon Division of State Lands commented that the Forest had not addressed the effects the Plan will have on similar resources managed by the State or adjacent private lands. They stated that the Federal Government, as the major landowner in a geographical area can, with its management policies, enhance or stifle the economy, or alter the development of that area.

Response:

Forest Service planning is conducted on several hierarchical levels. A Regional Guide (1984), as well as a Vegetation Management EIS (1988) and other plans, were prepared to give broad overall guidance to planning on National Forests in Region 6. In addition, various Forest Service manuals and handbooks exist which provide coordinating directives.

The Pacific Northwest Region conducted an "Aggregate Analysis" of alternative outcomes for various resources based on the draft Forest Plans. This analysis dealt, for instance, with regional timber supply and provided an overview of the effects of alternative courses of action. On a more local basis, National Forests did coordinate on location of management area boundaries and development of certain standards and guidelines.

A great deal of attention was given to consistency in dealing with certain issues between adjacent Forests. Other agencies, such as the BLM and Bureau of Reclamation, were involved throughout the process.

Finally, the Forest has worked closely with the State of Oregon and other agencies in the development and selection of a final alternative. This involved a great deal of coordination and interaction with State Agencies and the Governor's office. The Governor's office provided a State-wide view for the process.

1300-01.4 Planning Coordination

The Columbia River Inter-Tribal Fish Commission noted that the Forest Service coordination with Pacific Northwest fisheries enhancement activities is required by law, and that the Ochoco National Forest DEIS and proposed Plan do not reflect the consideration of these processes required by the NFMA.

The Commission further suggests that, to adequately assess the environmental impacts of its actions as required by NEPA, the Forest Service must study and disclose the cumulative impacts of all 17 Forest Plans in the Region on the Columbia River anadromous fish runs and the four Columbia River treaty tribes.

Response:

The Forest Service has coordinated its planning with the Columbia River Inter-Tribal Fish Commission (CRITFC). The Ochoco National Forest and Crooked River National Grassland are involved with the Forest Service's "Rise to the Future" incentives, and the riparian and wildlife habitat improvement projects scheduled in the Plan reflect this. The ROD specifically mentions the Forest's agreement with CRITFC to involve them early on in the scoping phase of projects potentially affecting anadromous fisheries.

@1300-02 Monitoring/ Implementation/Mitigation

Several respondents, including the U.S. Environmental Protection Agency, indicated that the Forest's monitoring system was not intensive enough. They suggest that it be more frequent than once every three to five years if the habitat for wildlife and anadromous fish is to be protected before significant damage occurs.

Some, including Governor Vic Atiyeh, suggested that the definition of monitoring be improved by adding a clause that will indicate certain deviations as a trigger for revision of management practices. Others, among them the Oregon Water Resource Department, remarked that there is no timeframe for the measurement of riparian improvements and that aspects of the Plan which pertain to meeting Federal or State mandated standards or regulations should be mentioned so the public will be better able to monitor the results of the program.

The reviewers suggested that the monitoring and evaluation program of the Forest Plan should be expanded to provide greater detail by species and monitoring objective. In addition, some felt that threatened, endangered and federally listed species should be added as an action and effect to be monitored.

Many, among them the State Forester, stated that the Ochoco had provided a very good framework for its monitoring and evaluation plan. However, they felt the plan needs to be improved in the following areas, funding of the monitoring process, flexibility of the plan to accommodate growth factors when they are greater than forecasted, and monitoring of logging operations.

Others felt that compliance with standards and guidelines or management prescriptions is generally not monitored, and that the public will not be able to tell if the Forest Service is trying to meet Plan objectives. In addition, they stated the monitoring plan, as presented, will not accomplish its presumed objective because monitoring compliance with many LMP objectives is not addressed.

One person indicated that the monitoring surveys should be conducted by independant technicians under contract in order to insure the highest level of impartiality.

Response:

Monitoring is required under NFMA Sec. 6(8)(1)(c). The monitoring process is described in Chapters 5 of the Plans. The environmental analysis (NEPA) process is tied into the monitoring and implementation program. This process provides for public involvement. Significant amendment or revision to the Plan as a result of monitoring will include public involvement and publication of a decision notice.

@1300-03 Management Strategies (Alternatives)

There were 91 letters with comments concerning alternatives in general. Most respondents expressed displeasure with either the number of alternatives or the range of resource outputs in the alternatives.

Some felt that eleven alternatives were far too many and confused the issue. Others were unhappy with the major discrepancies between the Forest Service alternatives and those proposed by private industry. These respondents wanted an alternative that emphasized timber yields and commodity outputs.

Others asked that the Forest Service not allow harvest levels to determine management strategies. They recommended that the Forest be managed with an emphasis on wildlife and biological diversity. Many of these respondents expressed disappointment with what they considered the narrow focus of the plan on timber and beef production. Some stated that any Forest Service alternative would be better than an alternative proposed by the timber industry.

Most respondents simply stated that the alternatives failed to satisfactorily deal with the issues and that they could not support any proposed alternative. Some, however, were pleased with the way the issues were responded to in the DEIS.

The major concern of the respondents seemed to be that the Forest Service implement a plan with the needs of the majority in mind.

One individual suggested that the Ochoco combine the best policies of forests all over the world into its program.

Response:

Under the requirements of the National Environmental Policy Act (NEPA) and the National Forest Management Act (NFMA), a range of alternatives, which might realistically be implemented, is required to be considered. Eleven such alternatives were analyzed in the draft (DEIS); in addition, another alternative was presented in a Supplement (SEIS) to the draft. Represented were a range in alternative management plans, from intensive timber management to emphasis on noncommodity resources with reduced timber yields. Other alternatives attempted to portray a more "balanced mix" of resources and outputs. Three alternatives incorporated "departures" from even-flow of timber. The departure alternatives maintained high levels of timber supply for the forest product industry during the decade to follow.

The complexities of planning requirements, and the difficulty and frustrations in understanding the alternatives, are reflected in the above range of public comments (also see comments under 1300-1 Planning). Likewise the Forest Service's problem of attempting to meaningfully apply public comment in decision making is demonstrated by the range of responses above. Comments specific to particular alternatives are addressed under other 1300 headings.

In the Final, the Forest Service has reduced the number of alternatives considered in detail. Alternatives in the Draft, which received little, if any, public support or interest, have been treated under a section of the FEIS entitled, "Alternatives considered, but eliminated." (See FEIS Chapter 2.) Six alternatives are analyzed in detail in the Final. The decision to present the six particular alternatives in the Final is based on NEPA requirements, legal considerations and public input.

The Final Preferred Alternative, Alternative I, is a new alternative. It represents an amalgamation of new information, parts of the draft alternatives, and incorporation of public comment. The formulation of the Preferred Alternative involved changes which were primarily in response to public comment (see Chapter 2, FEIS). The Final Preferred Alternative is within the decision constraints for alternatives as identified in the DEIS.

@1300-04 Management Strategies (Alternatives B+, B, B-Departure, B-Modified)

There were 106 comments on Alternatives B, B-Departure, and B-Plus (the timber industry alternative).

The vast majority of the respondents indicated a preference for Alternative B-Plus on the grounds that it emphasized timber and commodity production. They felt that only B-Plus would permit the economy of Central Oregon to survive.

A few were opposed to B-Plus because they felt it would deplete the resources in the region, damage the environment, and reduce big game populations.

Some Preferred Alternative B, feeling it offered a balance between commodity and amenity production.

A few recommended B-Departure with amendments to balance near- and intermediate-future timber yields and to ensure strong emphases on community stability.

The Crook County Soil and Water Conservation District suggested the Ochoco implement a combination of Alternatives B-Plus and E-Departure.

Some expressed concern that the form letters sent in by those preferring the timber industry's alternative (B-Plus) would receive less consideration from the Forest Service than would other forms of response.

Response:

Alternative B in the Draft Plan and DEIS was designed to attempt to meet Regional Guide 1980 RPA timber and range program targets. The alternative's focus was on intensive management for timber and range, but other resources were managed at minimum levels. To meet the RPA target all available forested lands were planned to be managed intensively for timber production in this alternative. In addition, another similar alternative was developed - Alternative B-Departure. It was found that even with departure harvest, neither alternative could meet 1980 RPA timber targets for all 50 years while simultaneously meeting other RPA objectives. With the exception of Alternative H-Departure, Alternatives B and B-Departure offered the greatest timber yields of any considered in the Draft.

The forest products industry used Alternative B as a basis for its own plan, called Alternative B-Plus. This alternative was strongly supported by the timber industry lobby and local communities through form letters and organized efforts (see Public Comment Analysis, Appendix A).

Timber industry officials and personnel of the Ochoco National Forest met and formulated a modified B-Plus alternative, called B-Modified in the Final Plan. B-Modified is an amalgamation of parts selected by industry from Alternative I and Alternative B. It represents an entirely new alternative and is fully addressed in the FEIS and Final Plan. In reality, industry's final version of Alternative B-Modified is more closely related to Alternative I than to Alternative B.

In terms of numbers alone, Alternative B-Plus received the most positive comments. This was a result of intensive organized efforts by the forest products industry. The questionable aspects of this alternative, and its poorly developed nature (except for the section on timber harvest) were recognized by the industry, as evidenced by the formulation of Alternative B-Modified in the FEIS.

None of the B alternatives discussed above (B, B-Departure, B-Plus) were selected for the reason that, while they provided high short-term economic benefits, they did not represent balanced or equitable resource mixes and they had potentially undesirable environmental and socioeconomic effects over time. Options would be reduced with the adoption of any of these alternatives and the risk of irreversible environmental effects was high.

See Chapter 1 of this appendix and 1300-17 Public Involvement Responses in this chapter for Public Participation information.

@1300-05 Management Strategies (Alternative C)

Many respondents favored Alternative C because they felt the reduced harvest levels would help heal the land from the many years of overharvesting. Also, many felt that this alternative best protects the Forest's natural values, such as riparian areas and wildlife, and would decrease the harmful effects of grazing.

Some felt that this Alternative would provide a suitable mix of recreational and commercial uses of public lands. Furthermore, many stated that this Alternative comes closest to meeting NFMA requirements.

Many felt that this alternative would maintain steady Old Growth. Reviewers said that Old Growth is a unique resource, and should be protected until fully understood.

Some opposed Alternative C because it would limit commodity production and would cause undue stress and hardships on local communities that depend on the timber production.

Response:

Alternative C was the conservation community's Preferred Alternative. It emphasized amenity or non-monetary values. A newspaper flier supporting this alternative was widely distributed by conservation organizations and individuals. There are environmental benefits associated with alternative C, but implementation could be only done with very high costs and radical change to established local, social and economic settings In the Forest's opinion, Alternative C does not provide a balance between environmental considerations and the economic realities of dependent communities, and therefore was not selected. It is presented in the FEIS as one of the final alternatives after being modified to include uneven age management and legislated changes such as classified Wild and Scenic Rivers.

@1300-06 Management Strategies (Alternative D)

A letter was received from one respondent suggesting that Alternative D comes the closest to true multiple use and protection of basic resources.

Response:

Alternative D emphasized fish and wildlife, especially big game. Timber and range outputs were significantly reduced, as was scenic and unroaded recreation. In emphasizing one resource, wildlife habitat, the alternative failed to incorporate other resource management opportunities. Reasons for nonselection were similar to those described under Alternative C

@1300-07 Management Strategies (Alternatives E, E-Departure)

Some respondents favored Alternative E because they felt it reflects a wise allocation of land, good objectives and sound management practices. They also note that it preserves greater than 97 percent of the employment base and provides a lessened long-term economic impact on local communities while still protecting the natural environment.

Many respondents Preferred Alternative E over E-Departure because they felt it meets the overall environmental needs prudently. Some felt that any departure from even-flow would cause long-term social, economic and environmental impacts.

Some, including Richard Kuczek, Labor Market Economist for Wheeler and Grant Counties, stated that they favored Alternative E-Departure on the grounds that it provides fairly high levels of non-market resources while maintaining current timber harvest levels for the first decade.

Others, including Governor Victor Atiyeh, opposed Alternative E-Departure because they felt it does not reflect a real balance between environmental concerns, recreation and the economy. In addition, they suggested that it is not compatible with State goals and does not maximize net public benefits. Some people stated that this alternative avoids controversial decisions by proposing a massive over-utilization of the Ochoco's resources which will result in a future crash where Forest utilization must be drastically decreased to allow recovery.

A few individuals opposed Alternative E because they felt it is too extreme and benefits the Forest, but not the people who use it.

Response:

Alternative E-Departure was the draft Preferred Alternative. There was strong public opposition to departure (see response to Timber Comments, 0700-01). Nearly all segments of the public felt that departure harvest was inappropriate. Using the public comment, new information, and additional analyses, the Forest Service created Alternative I - the Preferred Alternative in the Final Plan. The changes and reasons for change are summarized in Chapter 2 of the FEIS and Section 4 of the ROD.

@1300-08 Management Strategies (Alternative G)

A few respondents, particularly the State of Oregon in its original response, felt that Alternative G provides the best basis from which to create the Forest's and the State's Preferred Alternative. However, they noted that Alternative G needed some revisions to make it a more useful alternative. These included: retaining current levels of timber harvest for a stable local economy; improving riparian zone management, wildlife habitat and livestock management conditions; compliance with approved State and Federal plans for air and water quality standards, and maintenance of the current level of semi-primitive motorized and non-motorized recreation trails as presented in Alternative E.

Response:

Alternative G was the State of Oregon's original preference for an alternative among those displayed in the draft subject to the above modifications. Since then the Forest Service has continued to work closely and in cooperation with the State to assure that both agencies are in accord with the Preferred Final Alternative.

The State developed its own alternative and held public meetings in April 1989. There were no significant differences between the State's alternative and the Forest Service Alternative I in the FEIS.

@1300-09 Management Strategies (Alternative H)

Some public respondents favored Alternative H. They claimed this alternative has the best mix of timber, wildlife, water and recreation. Some also felt this alternative provided the most use for the most people while maintaining natural resources.

Response:

Alternative H emphasized management of timber and range resources in a manner that yielded the greatest economic returns with minimum attention given to other resources. It did not represent a balanced mix and was rejected in the selection of a final for reasons similar to those given under the comments on the B alternative.

@1300-10 Management Strategies (Multiple Use)

There were 363 comments concerning Multiple Use.

Many felt the Ochoco has been managed primarily for the timber and cattle interests and that commodity production should be secondary to environmental and recreational concerns. These comments favored minimal development and greater emphases on Fish and Wildlife and other nonconsumptive uses of the Forest.

Others were of the opposite opinion. They felt that commodity production should be stressed on all available acres. They commented that the Forest should be open for public use, not closed as a private playground Some cited the Multiple Use Sustained Yield Act and a requirement for the maintenance of a viable timber industry. Others stated that, in order to serve the greatest numbers of people, commodity outputs had to be stressed on the Ochoco.

Still other respondents expressed the desire for a balance between commodity and amenity outputs. Some of these individuals stated that past Forest practices have been adequate and should not be changed. Some stated that some harvest is acceptable, but clearcutting is not.

Response:

The issue of definition and application of multiple use is addressed in response to comments under 350-Multiple Use.

The above comments raised two other commonly expressed viewpoints relating to multiple use management strategies and planning: 1) don't change things, keep them as they are; and 2) management, or the Plan, is biased toward timber and range.

First, the Forest Service is required by law - the National Forest Management Act of 1976 - to prepare plans for the management of the National Forests. The regulations or requirements for those plans require that certain alternatives be considered, furthermore, certain things are required to be done differently than they are in existing plans to meet the intent of the law

Other recent legislation, such as the Oregon Wilderness Act and the Oregon Wild and Scenic Rivers Act, both affecting the Forest and Grassland, are further examples of changes that have taken place which the Forest Service, in order to act responsibly, must respond to. New information on Forest resources is available, and the Forest Service is required to update its plans for timber management every decade. These are but a few examples of things that have changed or continue to change. National Forest and Grassland management is not static. Planning and management are required to be flexible and dynamic.

Second, the Plan and FEIS alternatives represent different ways the Forest and Grassland may be managed. Different resource mixes, emphases and outputs are reflected by the alternatives. In the selection and preparation of the FEIS, the ONF has attempted to take a multiplicity of factors and concerns into account. In the Forest's judgement, Alternative I represents a "balanced mix" of resources, emphases, and outputs for the Forest and Grassland that is truly a multiple use alternative. It is certain though, that not every interest group or user group will be satisfied. Most will demand more, such is the nature of allocation of resources on public lands. However, making those demands under the auspices of "multiple use" is a corruption of the meaning and intent of multiple use management.

@1300-11 Standards and Guidelines

Some felt that the Standards and Guidelines were well thought out and very implementable.

Several respondents stated that Standards and Guidelines have two separate and distinct meanings. In addition, they felt these meanings are not carried over into the Plan, which gives no indication as to which requirements are mandatory standards and which are non-mandatory guidelines

Some stated that meadow protection was not adequate and that the subjective guidelines were not sufficient.

According to the U.S. Environmental Protection Agency, the annual budget will influence the level of projected outputs and Plan implementation. However, they feel that certain categories of activities should not be excluded at the expense of others. In particular, they felt the mitigation measures and Standards and Guidelines designed to protect or enhance resources should not be tabled while other goals are met.

Some doubted, based on the current economic situation and past project costs, that very many projects would be cost effective over the long term. Others felt, however, that it is quite possible such projects may be necessary to mitigate some of the other negative effects which will appear as the character of the Forest lands change.

Response:

Standards and Guidelines, and management area prescriptions, are given in Chapters 4 of the Forest and Grassland Plans. There are numerous directional statements in the Plans representing Standards and Guidelines, which deal with all resources.

The distinction between a standard being an absolute or mandatory requirement, as compared to a guideline, has not been made by the Forest Service.

The "MR's," or Management Requirements, are standards or guidelines which deal specifically with NFMA requirements. They are the ways that the legal requirements of NFMA have been incorporated into the planning process. The distinction is that standards and guidelines are established to meet management objectives, whereas management requirements carry the additional necessity of meeting NFMA legal requirements. This is described in detail in Appendix F of the FEIS.

@1300-12 Management Areas (MA 1)

Many respondents stated that they oppose the inclusion of any National Forest lands in the Draft Management Area 1 prescription. They suggested that, while timber production is an appropriate use of the Ochoco, the dominance it would be accorded in this allocation violates multiple-use management requirements.

Some stated that Management Area 1 is not suitable for the Ochoco National Forest because it emphasizes the rights of the cattle and timber industries while minimizing the rights of the public at large. Some expressed concern that too much Management Area 1 would mean too much clearcutting and too much grazing.

A few reviewers suggested the Forest needs to recognize the importance of the roaded "General Forest" area for recreation and establish guidelines to manage for this.

Response:

In the Final EIS, the Forest has continued a similar allocation termed MA-22 General Forest Under requirements of the NFMA, "suitability" is a factor that must be considered in planning and allocation. For the ONF, 533,177 acres have been determined to be suitable, as per NFMA, for timber management purposes. About 93 percent of this area has been allocated to General Forest (MA-22) in Alternative I, subject to requirements to provide protection of other resources. These requirements have an estimated opportunity cost in terms of allowable sale quantity (ASQ), which contradicts the above comments and assertions that the General Forest is being managed to the exclusion of other multiple use values.

Refer to 350 Multiple Use and 1300-10 Management Strategies comments (the converse of those represented here) and the Forest Response to those comments.

@1300-13 Environmental Effects/Impacts

Some comments indicated that with population growth and resulting heavier recreational use of the Forest, conservation becomes increasingly important for both economic and social reasons.

Others stated that they have watched the National Forest being destroyed year after year with an "irreversible, detrimental impact" due to lazy management and poor conservation practices.

Some noted that they felt the goal of a management plan should be no degradation of the resource.

Others noted that the DEIS should reflect a more conservative approach to irreversible commitments of National Forest resources. They felt that unavoidable adverse effects vary by alternative and should be compared as objectively as possible in the DEIS. Also, they felt the irreversible commitments of the DEIS should acknowledge that the adoption of a departure alternative is an irreversible commitment of future options.

Response:

In the preparation and selection of a final alternative, retaining options and minimizing environmental effects (particularly irreversible and irretrievable ones) were taken into consideration. The effects of the proposed action and alternatives on the environment have been taken into account throughout the planning process in alternative formulation, and allocation selection, Standard and Guideline development, and in mitigation and monitoring procedures (see Chapters 4 and 5 of the Final Plans). Adverse effects that cannot be avoided and irreversible and irretrievable commitment of resources were dealt with in the FEIS Chapter 4.

@1300-14 NEPA, NFMA, and RPA Comments, MR's

1300-14.1 NEPA Requirements

Several respondents indicated that the Draft Management Plan and DEIS was not in compliance with either NFMA or NEPA. One indicated that the DEIS does not present a worst-case analysis as is required by NEPA regulations.

Some remarked that the draft document fails to present a full range of alternatives in regard to several important issues, contrary to NEPA regulations.

Several respondents felt the DEIS should have included objective guidelines describing the analysis criteria which will be used to determine whether a resource management activity will require a categorical exclusion, an environmental analysis, or an environmental impact statement to comply with NEPA.

A few people indicated that, from a procedural standpoint, the DEIS was inadequate in several areas, including unavoidable adverse environmental effects, short term uses of the environment and maintenance of long term production, and irreversible commitment of resources.

Response:

A full range of Alternative plans were analyzed through the NEPA process--12 in the DEIS and 6 in the FEIS. The environmental consequences and comparisons of alternatives were analyzed in detail in Chapters 4 and 2 respectively. A full range of alternatives for each resource activity, such as ORV use or grazing, was not investigated. However, a "benchmark alternative" with minimum levels of grazing and other resource uses was formulated and used in the analysis process. The planning process was issue-driven, and alternatives, allocations, and standards and guidelines were developed to address the issues identified. The Plan is intended to be programmatic in nature, and as such it generally does not deal with project specific decisions.

The process and documentation for preparing the Plans closely followed the NEPA and NFMA requirements.

Worst-case analysis generally relates to proposed projects or actions that are specific or singular in nature. For the multiplicity of issues addressed in the Forest and Grassland Plans this is simply unrealistic. Worst-case analyses are generally not conducted in Forest planning unless specific issues emerge where such analysis is necessary or implied. No such issues were determined to exist for the Forest or Grassland.

1300-14.2 NFMA, Management Requirements

Many reviewers felt that the Forest needed to provide sufficient background to explore various ways to mitigate projected harvest reductions and that the Plan should discuss the individual impacts of each Management Requirement.

Some felt that the "minimum" Management Requirements in the Plan were more like "maximum" requirements and should be revised to be realistic and show a minimum need. In addition, some said they were unable to find where Management Requirements MR's are described in full or summary form.

A few felt that the EIS alternatives did not include variations of MR's. In addition, many felt the Forest must look at a range of alternatives for MR's.

Some commented that the Forest should have examined alternative ways to achieve the objectives of the MR's in the most cost-efficient manner.

Response:

Management requirements that are specified in NFMA were discussed and analyzed in the draft in the DEIS Appendix B, pages 59-61. Additional information and analyses on management requirements were also given in the Supplement to the DEIS, pages 17-34. In these analyses, alternative ways to achieve the requirements or objectives, and the opportunity costs in timber yields, were examined and displayed. Detailed information on management requirements is presented in Appendix F of the FEIS.

1300-14.3 No Change Alternative

One person noted that NFMA requires the development of a "no action" alternative, and that the Region, including the Ochoco National Forest, has chosen to include new scientific information and "management requirements" in the current direction alternative. The respondent felt that this does not allow the public an opportunity to make an unbiased comparison to determine the true resource trade-offs and resulting economic losses or gains.

Response:

The Forest prepared and displayed two "no action" alternatives in the draft--Alternative A and "Current Direction with NFMA." In the Supplement to the DEIS the Forest described still another "no action" alternative which was a continuation of management under existing plans, particularly the 1979 Timber Resource Plan. The latter alternative is not implementable, since it does not incorporate all legal requirements. The No Change Alternative has also been described in Chapter 2 of the FEIS.

@1300-15 National Grassland Management

1300-15.1 Grassland Plan

Many felt the Forest and Grassland should not be included in the same long-range plan. Some felt the Grassland should be separate as it is almost completely a forage producing area with very little timber.

Response:

The Forest Service recognizes the validity of the above comments. There are some good reasons to treat the Forest and Grassland separately.

Some of the laws and requirements for management of the National Grassland are different from those for the National Forest, and the resources on the Forest and Grassland are also different. The National Grassland and its management were overshadowed by the National Forest in the Draft. Specifics for the Grassland were difficult to separate from those of the Forest in the documents. Important resources and uses occurring on the Grassland were simply overlooked in the Draft. The Draft Plan recognized only eight management units or areas for the Grassland; the Final Plan now recognizes 15.

Two separate plans have been prepared in the Final, one for the Grassland and one for the Forest. The two plans and processes for their development are treated under a single Environmental Impact Statement and Record of Decision.

1300-15.2 Grassland Management

Many respondents felt that the Crooked River National Grasslands is a unique resource deserving of multiple use management. However, they felt the grassland is managed mostly for cattle grazing and should be managed to provide wildlife and all other resources.

Some felt that the Grassland has a long way to go before it returns to its natural balance. However, others felt that at present the Ochoco National Forest and Crooked River National Grassland is managing the grasslands reasonably well.

In addition, some commented that the livestock industry pays for the usage of the Grasslands, not only through grazing fees, but by water and land developments which help the entire multiple use program.

Response:

National grasslands are established under the provisions of the Bankhead-Jones Farm Act which requires management to maintain and improve soil and vegetation cover, and to demonstrate sound and practical principles of land conservation and multiple use (36 CFR 213.1). This law applies to the Grassland only, not the National Forest. Other laws affecting the management of public lands and resources also apply to the Grassland.

The National Grassland has a complex ownership pattern. Resources are frequently managed in cooperation with State and other Federal agencies. The Final Grassland Plan has 15 management areas, which reflect a diversity of uses, resources, and management prescriptions, in order to attain or maintain desired future conditions. The Plan deals with all resources, and truly reflects the multiple resource values and management occurring on the Grassland.

@1300-16 Analysis (FORPLAN)

1300-16.1 FORPLAN

One comment questioned the analysis used in the planning process. This respondent stated that the information needed by the public to evaluate the validity of the FORPLAN calculations was not provided in the DEIS and suggested that the FEIS provide a more understandable explanation of how linear programming was used to influence planning decisions.

The respondent asked that the EIS identify the objective constraint values used and the validation for their use. He pointed out that only a few modeling constraints were quantified or objectively defined in the DEIS.

He also suggested that the EIS contain a "benchmark" which drives the linear programming model to minimize "unavoidable adverse impacts."

This respondent also addressed the size and efficiency of analysis units. The question of whether a 3-acre analysis unit could be efficiently managed, or managed at full intensity, was raised.

Finally, the respondent suggested that the way in which the weaknesses of the computer models were overcome should be explained in the EIS.

Response:

There is no legal requirement to develop detailed documentation of FORPLAN models so that the public could review and interpret all outputs, calculations and options used. Documentation of this nature presently exists in the FORPLAN Users Guide and Mathematical Programmer's Guide, which are available for review in the Ochoco National Forest Supervisor's Office. Probably the best means of communicating information of this sort to inter-

ested publics would be through small group meetings rather than through additional technical documentation.

The usefulness and appropriateness of FORPLAN and other linear programs is well documented. Excellent reviews of FORPLAN can be found in "Proceedings of the Workshop on Lessons from Using FORPLAN," and "The Genesis of FORPLAN." Dennis Teeguarden, in his paper, "FORPLAN: An Evaluation of a Forest Planning Tool," stated:

> A simulation or optimizing model such as FORPLAN, creatively used by knowledgeable persons, provides a powerful tool for Forest planning. However, the nature of the planning problem makes it unlikely that any single model will ever satisfy all the requirements It is probably best to think of the planner/decision-maker as operating in an environment of several different models or processes. Some, such as FORPLAN or input-output models such as IMPLAN, will be quantitative and objective in nature, while others are qualitative and subjective.

Thus, it is useful, if not essential, to have a computer system that can provide a framework within which to address the analytical requirements of both NFMA and NEPA. There are limitations and weaknesses associated with all models, and no model is a perfect representation of reality. As a result, they must be used and interpreted with care. The bottom line is that any model is just a tool. The decision makers must use various tools and professional judgement in managing the Forest.

There is no requirement to display the value of the constraints used in the FORPLAN model. Only the purpose and effect of a constraint must be discussed. Constraint values are included in the FEIS when this helps in understanding the purpose or effect of the constraint.

Some constraints (for example, Legal Policy and Management Requirements #1 and #2) are internal to the FORPLAN model. These constraints were comprised of complex mathematical formulas and would be of value to only a few individuals. These types of constraints are documented in "FORPLAN Version 1: Mathematic Programmer's Guide," which is available for review in the Ochoco National Forest Supervisor's Office.

Benchmarks were used in the planning process to establish the maximum and minimum resource output levels. This range of output levels defined a "decision space" in which a range of alternatives addressing the ICOs was developed. Thus, it would be difficult to develop a benchmark which measured adverse impacts. Because the term "adverse impact" is somewhat subjective, the decision as to which alternative best meets this criterion would be based on individual preferences.

The basic units used in FORPLAN are referred to as analysis areas. They represent aggregations of many individual non-contiguous mapping units with identical delineators. The mapping units which make up an analysis area are considered homogeneous in terms of costs and yields (See Figure B-3-1 in the Appendix B of the FEIS). Without reference to these individual units, analysis areas, and therefore FORPLAN analyses, lose site specificity.

Appendix B describes the major Ochoco National Forest planning problems in relation to the inherent weaknesses of linear programming. A summary of the analyses undertaken to help remedy these shortcomings is included.

1300-16.2 Present Net Value

One comment expressed the concern that while Present Net Value (PNV) calculations seem to be major influences on FORPLAN outputs, they are not responsive to the ICO's. This respondent requested that the relationship of FORPLAN PNV calculations to the national concern of economic efficiency be addressed in depth. The concern was also expressed that PNV does not address the national interest of ensuring that the Forest and Grassland is managed in a financially prudent manner while the quality of the physical environment is protected and enhanced.

Response:

Economic efficiency is a major planning criteria addressed in NFMA and its implementation regulations. The major use of PNV is not the control of FORPLAN outputs, nor is it directly related to ICO's. PNV is used 1) to ensure that scheduled activities and practices are cost effective, 2) to select the most efficient activities and practices to achieve a set of goals and objectives, and 3) as one of the decision criteria in deciding which alternative best maximizes Net Public Benefits.

Thus, PNV does not directly relate to the quality of the physical environment. Instead, Standards and Guidelines are used to protect and enhance the environment Only if a practice was built into or left out of an alternative due to high costs or the cumulative effects of selection of cost-effective practices would PNV indirectly interfere with maintaining or enhancing the environment.

1300-16.3 Tradeoff Analysis

One comment addressed the use of tradeoffs in FORPLAN analysis. The respondent interpreted tradeoff as meaning a positive or negative change in PNV and ASQ, and objected that increases in PNV or ASQ are actually benefits, not tradeoffs. He also pointed out that a number of tradeoffs, including big game numbers, RVDs, fish numbers, riparian habitat, water quality, and soil retention, were not evaluated.

Response:

Appendix B does consider tradeoffs involving criteria besides PNV and timber outputs. Increases in PNV and ASQ are benefits, not tradeoffs. This has been clarified in the FEIS.

Appendix B analyzes the effects of major resource objectives on PNV and ASQ. It is correct that the effect of raising or lowering PNV or timber volume on other resources is not displayed in a similar fashion These effects are disclosed in Chapters 2 and 4 and in Section 8 of Appendix B of the FEIS.

1300-16.4 FORPLAN Analysis

One comment addressed the marginal effects on "willingness to pay." The respondent stated that the value of an output should be greater in alternatives that produce less of that output. For example, the respondent felt the value of semiprimitive, nonmotorized recreation visitor days (SPNM RVD's) should be higher in Alternative E than in Alternative C, because Alternative E produces fewer SPNM RVD's. Similarly, it was felt that the value of timber should be greater in Alternative E than in Alternative B.

Response:

The Ochoco National Forest and Crooked River National Grassland used a horizontal rather than a downward sloping demand curve in its analysis. In other words, regardless of whether the Forest offers one board foot or one million board feet of timber, or one SPNM RVD or one thousand SPNM RVD's, the value per unit of output will be the same. Economic principles do suggest that supply and demand for a given product will interact in the marketplace and influence price. However, the Ochoco National Forest is only one supplier. Therefore, the derived demand for any one product also depends on the supply of that product from other sources.

The assumption made for timber is that the demand for timber is great enough to consume any quantity that the Ochoco National Forest could offer. In addition, the Ochoco National Forest will have a minimal influence on current prices because of the mobility of logs and timber purchasers and the response of other owners to opportunities created.

The value of an output will not vary between alternatives when supply exceeds demand. This is the case with SPNM RVDs in Alternatives C and E for the first and second decades.

1300-16.5 Opportunity Costs

One comment addressed opportunity costs. The respondent pointed out that the DEIS did not explain how the opportunity costs were generated, nor did it address opportunity costs in terms of other

resource values lost for each incremental increase in PNV.

Response:

The explanation of how opportunity costs were generated has been included in Appendix B, Section 7 of the FEIS.

Appendix B displays all tradeoff comparisons and sensitivity analyses required by Regional and National direction. Opportunity cost analysis for resource values based on incremental changes was not performed.

It has been the intent of planning analysis to define resource output decision space and to identify the significant opportunity costs associated with various legal, policy and discretionary constraints imposed in the process of formulating benchmarks and alternatives. Because of the uncertainty of basic data such as production coefficients and future prices, a good deal of sensitivity analysis and trade-off analysis has been incorporated in the FEIS. The purpose of such analyses has been to provide information that can be used to explain the PNV differences between alternatives and to identify the implications of using uncertain information in decision making. Because of the time pressures involved in Plan completion schedules and the overwhelming volume of potential analysis that could be conducted, efforts have been focused on providing the public with relative opportunity cost information where major resource trade-offs occur.

PNV is dependent upon the interactions of all priced and non-priced resource outputs, not the other way around. In order for PNV to vary, one or more of the resource outputs must vary.

The Forest has examined and displayed the type of information which might address this concern in a more quantitative and objective manner. For example, Section 8 of Appendix B displays some of the key non-priced outputs along with PNV of the alternatives. It also displays the PNV and certain priced and non-priced outputs both as an absolute value and as a percent of the maximum.

@1300-17 Public Involvement

1300-17.1 Administrative Appeals System

One respondent stated that the environmentalists will be forced to use legal and other coercive methods to handle what should have been addressed in the planning process.

Response:

Within the newly revised Administrative Appeal procedures, (CFR 36 - 217 and CFR 36 - 251 February, 1989), opportunities for negotiating/mediating public concerns of line officer decisions is encouraged. In addition, the appeal procedures continue to provide a formal review of these line officer decisions. Individuals still not satisfied can seek relief through the judicial system.

1300-17.2 Administrative Appeals System

The Grant County Court expressed the feeling that anyone who has the opportunity to participate in this planning process, and does not, should not have the option of appealing and holding up the implementation of the Plan. To allow this, according to the Court, is essentially to say that the planning process is not sufficient, and negates the purpose of having a Plan in the first place.

Response:

The USDA Forest Service's Administrative Appeal procedure is a process open to all American citizens to ensure that they have an opportunity to formally contest line officer decisions. Under the revised appeal regulation (February 1989), the appeal of individuals who have not participated in the planning process or the discussion of pertinent issues will not be given the same merit in an administrative appeal as those who have participated in such processes

1300-17.3 Public Information

Some respondents recommended that the ONF start an educational program in the schools, similar to the Smokey Bear program, to teach children that the public domain is for everyone to enjoy and that all groups must work together to keep it beautiful, productive, clean and available for all.

One reviewer felt that the Forest needs to get more people involved in the management of the forest through stewardship programs, meetings, videos and environmental education news items.

Response:

The Ochoco National Forest has sponsored several environmental education activities involving school age children. The 1988 Crook County Fair included an educational program involving twelve different organizations and agencies, entitled "Safety Town," which was visited by over 400 children and their parents. The Forest also has coloring contests and Learning Tree instruction activities with school age children. The Forest's Smokey Bear fire prevention program and Woodsy Owl anti-vandalism campaign are highly visible and are effective means of teaching youth to respect and appreciate our public lands.

In addition, the ONF is very interested in seeking and establishing partnerships and public involvement in management activities. In February, 1989, the Forest met with representatives from more than 20 different special interest groups and concerned citizens to seek and establish better ways to incorporate public involvement in annual project planning The Crooked River National Grassland has been cooperatively involved with several private and governmental organizations in riparian enhancement and received national recognition in 1988 from the American Fisheries Society.

The Forest also has Adopt-A-Campground programs and on the Prineville District, a local equestrian group is contributing to the development of a horse camp. Through a cooperative effort with the Oregon Army National Guard, there are nine recreation-related projects that were be completed on the Big Summit Ranger District in mid-June 1989.

The push for cooperative funding and/or staffing of programs previously sponsored solely by governmental agencies alone is well understood by the National Forest and the Ochoco has been working very hard to promote cooperative partnerships.

1300-17.4 Public Involvement Methods

One person felt that an issue of this magnitude requires the Forest Service to actively pursue public comment by making contact not only with interest groups, but by making the entire process more visible to the people it will affect the most.

Some respondents felt that the Forest should listen to a broad spectrum of citizens, not just from those who are supporting special interest groups.

Response:

The Ochoco National Forest and Crooked River National Grassland have held over thirty meetings with the public, involving individual citizens as well as various interest groups. The Forest has a planning newsletter which was sent to about 2,600 people on the planning mailing list. (The mailing list is made up of those people who responded to the Draft Environmental Impact Statement or Draft Plan and also include those agencies and elected officials required under NEPA.) The ONF also disseminated a great deal of information with the help of the media. See the Introduction to this Appendix.

Additionally, the Forest encourages all interested individuals to participate in annual project planning activities and to get on the Forest Plan Report mailing list. The ONF does not promote any one group over another and everyone's opinion is given thorough consideration by Forest officials.

1300-17.5 Public Involvement

One individual believed that the process the ONF is undertaking will prove in the end to be one of the best processes that have been undertaken in regard

to the stewardship of the National Forest. The respondent believed this process will for the first time actively involve the local community to a large extent.

Response:

The ONF hopes that the land management planning process will prove to be a beneficial practice as it relates to resource management and involvement of all publics.

1300-17.6 Public Comment Period

The Office of Economic Analysis felt that each Forest should circulate its alternatives for comment prior to making computer runs. The agency feels that this will allow for a cost-effective method of examining a wider range of alternatives.

Response:

Prior to development of alternatives, the Forest identified issues, concerns, and opportunities (ICO's) as defined by the public through the public involvement process. The ICO's were an integral part of the creation of the wide range of alternatives offered in the Draft Environmental Impact Statement (DEIS).

The framework for each alternative was conceptualized by the Forest Management Team (FMT) and the Interdisciplinary Team (ID Team). The computer model was built to reflect the objectives that the FMT and ID Team have established for each alternative. Throughout the entire analysis process, there was ongoing refinement of the computer model, and hence of the various alternatives. Alternatives could have been circulated for public comment prior to computer analyses, but until the analyses had been completed, the forest did not know the outputs and environmental consequences in enough detail to fully define the alternative. As a result, the Forest chose to do a more detailed analysis prior to circulation of the alternatives for public comment. After formal public review of the draft forest plan in 1986, public comments have been used to a great extent in designing the final Preferred Alternative. See summary and chronology of the Public Involvement process in the Introduction to this Appendix.

1300-17.7 Public Involvement - Local vs. Other

Some respondents felt that the community closest to the Forest being considered in the plan should be taken into consideration before those who do not live in the community.

A few felt that most of the input should come from local groups that derive a living from Forest lands, and not from the special interest groups from large metro areas

One person felt that the Ochoco National Forest people are listening to the wrong people and don't seem to care about what happens to the local economy.

Response:

The Forest Service realizes the importance of the National Forest and Grassland to the local economy and does not take that relationship lightly. However, the National Forest and Grassland is a National forest or Grassland and managed according to legal mandates. The Forest must consider all public comment and give thorough consideration to each person and/or group regardless of proximity to the forest or whether the person(s) or organization responding are from an urban or rural area.

Appendix I

Response to Public Comment

Section 4

Comments from Elected Officials, Agencies and Indian Tribal Governments

00136 G.K.

United States Department of the Interior

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TAKE PRIDE IN AMERICA

January 20, 1987

ER 86/1434

Dave Rittersbacher
Forest Supervisor
Ochoco National Forest
P.O. Box 490
Prineville, Oregon 97754

Dear Mr Rittersbacher:

The Department of Interior has reviewed the Draft Environmental Impact Statement (DEIS) and Proposed Land and Resource Management Plan (PLRMP) for the Ochoco National Forest and Crooked River National Grassland, Oregon The following comments are provided for use and consideration when preparing the final documents

GENERAL COMMENTS

Fish and Wildlife Resources

In consultation with state biologists and coupled with field inspections, the Fish and Wildlife Service (FWS) believes that excessive livestock grazing now occurs in various areas of the forest and grassland. This has resulted in unacceptable losses to fish and wildlife habitat, especially in the riparian areas. Eight of the eleven management alternatives, including the "preferred alternative" would increase even further the excessive amount of grazing (AUMs) which already occurs. FWS recommends that the existing AUMs be reduced and considerable effort be directed toward restoring degraded habitat Fencing riparian zones should be a priority in such habitat restoration.

The FWS has initiated a formal consultation regarding threatened and endangered species under Section 7 of the Endangered Species Act of 1973. A biological opinion is being prepared and will be forwarded to the Ochoco National Forest under separate cover.

Cultural Resources

Based on a cultural resource review conducted by the National Park Service Interagency Archeological Services (IAS), the PLRMP is extremely deficient in detail about how Ochoco National Forest intends to identify and plan for the protection of its cultural resources We note that the DEIS contains more of the type of information we would expect to find in the Plan. The Plan states that 1,700 sites have been identified in the Forest, the management of which should require substantial planning However, the Plan's treatment of cultural resources suggests that they may not be accorded the same level of management planning as other environmental resources.

The Forest's major goal is to identify cultural resources in advance of timber sales and other projects and to avoid or mitigate impacts to those determined to be significant. This approach is considered necessary for compliance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). The content of the Plan implies that this will be the Forest's primary cultural resource activity for the next decade.

The DEIS, however, indicates that the Forest is currently exploring cultural resource planning beyond the project level. This type of planning has become increasingly useful, and we recommend that it be incorporated in the Plan as an equally important goal This is because of the growing management problems associated with project-by-project identification and avoidance of cultural resources. The placement of the Forest's resources in broader planning contexts will eventually allow more critical appraisals of resource significance and investigation/protection needs

NEPA, NHPA, and attendant regulations state that Federal agencies have an affirmative responsibility to protect and enhance all cultural resources within their jurisdiction. This responsibility can best be served through comprehensive planning at both Forest and State levels We encourage the use of overviews, predictive models, and sampling to identify cultural resource topics relevant to Ochoco National Forest and logical environmental areas that require survey beyond the project level The use of these methods coordinated with the State Historic Preservation Officer's (SHPO) statewide goals and priorities, will result in the contexts necessary for evaluating the Forest's cultural resources and planning their long-range treatment.

For each Management and Wilderness Area, the Plan should discuss affirmatively what will or will not be done to identify, evaluate, protect and interpret cultural resources For most of these areas, cultural resources are not mentioned. It should also explain the basis of the following statements made in reference to several of the areas· "Do not enhance or interpret cultural resources," "Avoid enhancing and interpreting cultural resources."

Wild and Scenic Rivers

No units of the National Park System will be adversely affected by the proposed action However, the National Park Service has certain responsibilities for Wild and Scenic Rivers and is the Custodian of the Nationwide Rivers Inventory, which was conducted under the authority of the Wild and Scenic Rivers Act.

The proposed plan states that segments of the Deschutes, North Fork Crooked, and mainstem Crooked Rivers which have been "inventoried suitable for classification as scenic or recreational rivers will be protected until Congress resolves their status." We suggest that you recommend, in the final EIS and Plan, designation of the rivers found suitable for inclusion in the Wild and Scenic River system Until such time as Congress acts on the recommendation, we concur with your proposal to establish special management provisions for these rivers to preserve their eligibility and suitability for designation

Mineral Resources

A mineral potential map is needed. It should be at the same scale as the alternative maps for direct comparison with the alternatives. The Okanogan National Forest

PLRMP/DEIS contains a good example. Illustrations and a more detailed discussion of mineral potential for each of the roadless areas in the appendices are needed

A discussion is needed in the DEIS of how minerals are affected by each of the alternatives The DEIS from the Wenatchee National Forest, Washington, provides a good example of point-counterpoint discussion of how minerals affect other resources and how decisions affecting other resources will, in turn, affect minerals.

A narrative section on minerals, containing history of development and mineral production, value of past production, projected mineral demand; and current operations in locatable, leaseable, and salable minerals is needed The Beaverhead National Forest PLRMP/DEIS has one of the best examples

A list of current mineral withdrawals, acres involved, and mineral potential for locatable and leaseable would be useful The best example is in the PLRMP/DEIS for the Los Padres National Forest, California.

The meaning of existing access for locatable minerals should be clarified. It should be noted that although an area may have many access restrictions because of a lack of roads, rough terrain, etc , a claimant does have the statutory right to develop reasonable and good access to claims if necessary. Recent court cases have demonstrated that excessive restrictions on access to mining claims may constitute unlawful taking of private property, the mining claim, without just compensation.

The documents acknowledge that the continuing emphasis on protection of other resource and amenity values can place increased restrictions on mineral exploration and development. However, it would be helpful to also point out the responsibilities of the Forest Service to accommodate mineral development on lands open to mineral development in order to comply with Federal mining laws

Water Resources

The statement should address the range of yields from the water wells and estimate the usage of ground water on the Forest. The current quality of ground water should be addressed The Plan indicates that at fee campgrounds drinking water quality is to be monitored. The statement and plan should also indicate monitoring plans for other ground-water sources of drinking water made available to visitors and staff on the Forest and Grassland. Effects of changes under the Plan, such as increased visitation, should be discussed in terms of potential impacts resulting from disposal of solid waste generated within the Forest

Hazards

This area has been repeatedly subjected to the effects of volcanism, both tephra falls and flows Landslides, both volcanically induced and otherwise, do occur in this region. These potential hazards should be evaluated.

Coordination with other Federal Agencies

While the plan and EIS reflect coordination in some programs, provision for additional coordination with the Bureau of Land Management (BLM) regarding utility corridors and

timber/firewood sales should be made.

It does not appear that the proposed land use plan addresses utility corridors as required by Sec. 503 of the Federal Land Policy and Management Act of 1976. Planned and existing corridors identified by the Western Regional Corridor Study (May 1980) are not addressed in the Plan, nor are maps provided. The Ochoco National Forest should coordinate utility corridors with the BLM since utility lines, etc., pass through both jurisdictions An update to the Corridor Study is expected to be issued by the Western Utility Group in early 1987.

Discussion in the Plan of firewood and timber sales coordinated between USFS and BLM would assist the public's understanding of land use interrelationships More effective combined sales could be accomplished and cumulative effects better analyzed for the public.

SPECIFIC COMMENTS

DEIS

Page 73, Vegetation The discussion of "sensitive" plants fails to use the categories for Federal listing. The Oregon Natural Heritage Data Base categories are not necessarily comparable. This section should reflect the Federal status in addition to that listed in the March 1985 Data Base:

Species 3-5	Allium madidum, A. pleianthm, A tolmei platyphyllum are "limited in abundance", thus are category 3 in the 1985 report
Species 10:	Calochortus longebarbauts peckii is Federal Candidate 2 (Federal Register September 27, 1985).
Species 11·	Collomia macrocalyx is Federal Candidate 2 (Federal Register September 27, 1985).

The BLM's Prineville District Office lists several other threatened and endangered T&E/sensitive plant species on public lands. We urge coordination with Burns and Prineville District Office botanists regarding inventory of species which may also be present on the adjacent Ochoco National Forest.

Reference is made to the possible need for monitoring category 4 plants. Monitoring T&E/sensitive plant species did not appear to be directly referenced in the plan.

Page 79, Cultural Resources The DEIS should explain the past, current, and planned treatment of "lithic scatter" sites, a class of resource that has been determined eligible for the National Register of Historic Places

Page 83, Minerals and Energy Resources. The Bureau of Mines has suggested a modification of Table III-17, using percentages rather than acreages. This may make it easier to envision the comparison and comprehend the effects each alternative may have on mineral resources. Sample tables have been provided to the Forest under separate cover.

Page 107-111, Riparian (Fisheries). Described mitigation measures tend to emphasize expensive, structural techniques. Consideration or inclusion of more preventive techniques such as no-cut buffers, careful and minimal road construction, location criteria for roads, etc., is suggested

Plans for management actions near streams should consider the effects on fisheries, water quality, etc., rather than stream class designations alone. In Eastern Oregon, Class III streams are often used by fish during part of the year for spawning This is especially true for anadromous fish (steelhead in particular) in the John Day watershed. Class IV streams can have an indirect affect on fisheries of streams to which they are tributaries.

Page 144, Cultural Resources· Assumptions and Interactions The PLRMP and the DEIS differ in regard to the Forest's proposed use of its identified sites. The DEIS states that the expansion of recreation facilities would see "a concomitant increase in cultural resource inventories" and "an increase in opportunities to enhance and interpret significant cultural resource sites for public education and enjoyment " In all but one instance, however, the Plan specifically excludes Management Areas from opportunities to enhance and interpret sites for the public benefit. This apparent conflict should be resolved.

Page 145, Cultural Resources, Transportation. This section should address the indirect negative impacts of improving access in areas, especially those previously far from roads These effects on cultural resources, in the form of artifact collecting, vandalism (looting) and inadvertent damage, are not limited strictly to recreational use of the forest. The Forest's plan to survey linear historic or ethnohistoric features in their entirety should prove increasingly useful for planning purposes as projects intersect them in the future

Page 152, Assumptions and Interactions The definition of withdrawals needs to be reviewed Staking of new claims and establishment of new leases may be prohibited depending upon the individual withdrawal. Development of leases and claims established prior to the date of withdrawal is not necessarily prohibited, depending on the type and specifics of the individual withdrawal.

Page 178, Irreversible or Irretrievable Commitment of Resources We agree with the statement that "continued avoidance of cultural resource sites ..tends to undermine efforts to acquire data which would expedite future site evaluations." However, we do not agree that data recovery should be the exclusive, or even primary method, to generate data for the management of the Forest's cultural resources. Whenever data recovery is conducted on sites, the opportunities for doing such work in the future, with improved technology, are precluded The evaluation phase prior to data recovery can be most efficiently and economically served by intensifying field efforts to properly identify the character of each site discovered during survey and by establishing Forest-wide, regional, and/or State-wide historic (or prehistoric) contexts for comparative purposes.

Proposed Land and Resource Management Plan (PLRMP)

Page 13, Vegetation Cross-referencing to the DEIS, page 73, discussion of sensitive plants would assist the reviewer.

Page 27, Desired Future Conditions of the Forest and Grassland. The Plan should make it clear that the development of new research questions and methods will, in most cases, not be a consequence of project level identification and avoidance activities. This will come largely through broad-based planning studies, non-project survey, and data recovery projects

Page 42, Research Natural Areas It would be helpful to include a description of the

features of those RNAs proposed for designation. We also suggest that a discussion on management objectives, constraints, and other management-related information be included for each RNA. A reference to both Appendix E (Appendix Volume) and Appendix E-1 (PLRMP volume) would also assist the reviewer.

Silver Creek Research Natural Area is a name already used by BLM. We suggest communication with the Burns BLM District Office to see if RNA cell needs have already been met by BLM.

Page 43, Cultural Resources. The basic character of the Inventory Plan needs to be explained. This should be more than a schedule of surveys done in connection with timber sales, etc. The Inventory Plan represents an opportunity for the Forest to consult with the SHPO and implement field investigations and studies that are based on and/or will result in broader planning contexts. This approach is recommended so that the Forest can better understand the significance of its numerous cultural resources and be more selective about funding their protection and management

Page 44, Ecosystem Management. It is unclear whether threatened and endangered plant species are included in monitoring activities under item 12. Table V-2 apparently combines both plant and animal species, making it difficult for the reviewer to differentiate possible plans to monitor T&E/sensitive plants.

Page 44 and App. D-1&2, Item 7. This statement implies that the applicable Native American group will only be contacted if reinterment in-place is not possible. The issue would be more in line with Oregon State Law and the American Indian Religious Freedom Act if statement "b" followed "c" The Native Americans should be contacted in any case dealing with a prehistoric burial or cremation. Notification of the Oregon State Historic Preservation Officer and the Oregon Commission on Indian Services is appropriate action.

Page 49, Mining Claims. The sentence concerning approval of mining activities states "Approval will be given when the Forest's concerns are mitigated in a responsible and responsive manner." To clarify this section, the text could reflect that Federal law gives claimants the statutory right to develop their mining claims.

Explaining what the words "responsible" and "responsive" mean would also be helpful. These words, and phrases such as "as much as possible," found throughout the mineral discussions, lack clarity.

Page 56, Threatened, Endangered and Sensitive (Plant) Species

Items 1-2. It would seem that field examinations would be important especially where no sensitive species are shown by existing data, the absence of data may be due to an area never having been inventoried. Also, periodic reinventory may be necessary since new sensitive species are continuously being added to lists.

Item 7. Rare Plant Survey forms are available from the Oregon Natural Heritage Data Base. The Data Base is the "central file" for all threatened and endangered plant and animal species information in Oregon and would be a depository for this information. Also, information exchange with other Federal agencies in the Forest's ecological province would be valuable; e.g., BLM has an active T&E plant program in the Prineville and Burns District Offices.

Page 84. Minerals Locatable. While all reasonable and practicable measures will be

taken to prevent undue and unnecessary degradation of the wilderness values, the rights accorded holders of valid unpatented mining claims should be recognized in this discussion.

Appendix C-1, Page C-3. Under the paragraph heading "Culling of Excess Numbers within the Original Territories" the document indicates " ... mature horses will probably never develop into gentle saddle horses." We suggest this statement be revised as follows: "Any person interested in acquiring a mature wild horse should realize that some of these animals may never develop into a gentle saddle horse."

Appendix C-1, Page C-5. Public Law 92-195, as amended, (commonly called the Wild Free-Roaming Horse and Burro Act of 1971) permits the humane use of motor vehicles and aircraft by authorized officers, except that no motorized vehicle other than a helicopter can be used for pursuing and gathering.

Appendix J, Page J-1. This appendix contains a brief list of 13 sites representing "the more significant cultural resources on the Forest and Grassland." This document would be more useful if it summarized the various classes of prehistoric and historic resources recorded within the Forest; discussed which are considered important in relation to recent research; explained the evaluation process used when such resources are identified; listed how many of the 1,700 sites, structures or classes have been determined eligible for the National Register in consultation with the SHPO, and specified how significant sites are being and will be protected.

APPENDICES

Since several appendices duplicate sections of the PLRMP, comments made on the PLRMP are also relevant in the corresponding appendix.

MAPS

Management Area No. 11 is not detectable on the Alternative maps. While existing Forest recreation sites are shown (as part of the base map legend), proposed sites are not, thus the impact of management on future recreation sites cannot be visualized. Both existing and planned sites could be shown by use of symbols on the 1/2 inch = 1 mile maps. Figure IV-4 (page 64 in the PLRMP) does not show Management Area No. 11 either, probably due to the scale.

Thank you for the opportunity to comment on your Proposed Plan and Draft EIS

Sincerely,

Charles S. Polityka
Regional Environmental Officer

00156

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D C 20240

In Reply Refer To:
ER-86/1434

Dave Rittersbacher, Forest Supervisor
U.S. Department of Agriculture
Forest Service
Ochoco National Forest, P.O. Box 490
Prineville, Oregon 97754

Dear Mr. Rittersbacher:

This is in regard to your transmittal of September 11, 1986, requesting the Department of the Interior's review and comments on the draft environmental statement and proposed land and resource management plan concerning the Ochoco National Forest and Crooked River National Grassland, Oregon

This is to inform you that the Department will have comments but will be unable to reply within the allotted time as we have just received your transmittal. Please consider this letter as a request for an extension of time in which to comment on the statement.

Our comments should be available about January 19, 1987.

Sincerely yours,

Bruce Blanchard, Director
Environmental Project Review

United States Department of the Interior

BUREAU OF MINES

WESTERN FIELD OPERATIONS CENTER
EAST 360 3RD AVENUE
SPOKANE WASHINGTON 99202

December 18, 1986

Mr. David Rittersbacher
Forest Supervisor
Ochoco National Forest
P.O. Box 490
Prineville, Oregon 97754

Dear Mr. Rittersbacher:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) AND PROPOSED LAND AND RESOURCE MANAGEMENT PLAN FOR THE OCHOCO NATIONAL FOREST AND CROOKED RIVER NATIONAL GRASSLAND, OREGON (1920 LMP)

The DEIS and Proposed Land and Resource Management Plan have been reviewed by this office and are found to have the following deficiencies:

1. The report needs a mineral potential map. It should be at the same scale as the alternative maps for direct comparison with the alternatives. The Okanogan National Forest in Washington is a good example.

2. It needs illustrations and a more detailed discussion of mineral potential for each of the roadless areas in the appendices.

3. It needs a discussion to go along with table IV-20 of how minerals are affected by each of the alternatives, and a section in the summary that compares how minerals fare by all of the alternatives.

4. It needs a point-counterpoint discussion of how minerals affect other resources and how decisions affecting other resources will, in turn, affect minerals. The best example to date is the DEIS from the Wenatchee National Forest, Washington.

5. It needs a narrative section on minerals, containing history of development and mineral production, value of past production, projected mineral demand; and current operations in locatable, leasable, and salable minerals. The Beaverhead National Forest is one of the best examples.

6. It also needs a list of current mineral withdrawals, acres involved, and mineral potential for locatable and leasable. The best example is the Los Padres National Forest, California.

We have reviewed most of the forest plans of the far western United States and have noted certain methods of presentation that are improvements over other forest plans. The following are offered as suggestions for improvement.

1. We suggest a modification of table III-17, as shown on enclosure 1, using percentages rather than acreages. We feel it is easier to envision the comparison and comprehend the effects each alternative may have on mineral resources.

   The potential classification consists of five parts, with a range from high potential to very low potential based on current knowledge. The availability classification consists of four categories, including withdrawn, specific legal protection measures, special management conditions, and standard operating conditions.

2. Expand your Evaluation Criteria for Nonenergy Minerals such as that from the Wallowa Whitman National Forest, Oregon (enclosure 2).

3. Provide a definition of access restriction categories such as that from the Beaverhead National Forest, Montana (enclosure 3).

Overall, the documents are quite good, with most minerals issues being treated well with respect to their abundance on the forest. We sincerely hope you incorporate our suggestions in your final EIS and modify the documents accordingly.

Sincerely,

D'Arcy B. Banister, Supervisor
Minerals Involvement Section
Branch of Engineering Studies

Enclosures (3)

		Non-energy Mineral Potential Category (MPC)[1]					Energy Mineral Potential Category (MPC)				
		I	II	III	IV	V	I	II	III	IV	V
Total acres of potential		579,789	425,032	1,142,700	0	0	216,257	376,288	1,382,040	173,036	0
	Access Category[2]	Percent of total acres of each MPC affected					Percent of total acres of each MPC affected				
Alt. 1	A	12	16	17	0	0	0	0	16	58	0
	B	27	2	4	0	0	1	4	12	7	0
	C	8	2	4	0	0	0	0	8	1	0
	D	53	80	75	0	0	99	95	6	34	0
Alt. 2	A	0	0	16	0	0	0	0	6	58	0
	B	16	2	3	0	0	2	5	8	1	0
	C	29	45	42	0	0	54	58	34	17	0
	D	55	52	40	0	0	45	36	52	23	0

[1]See enclosure 2 from DEIS, Wallowa-Whitman National Forest, Oregon.
[2]See enclosure 3 from DEIS, Beaverhead National Forest, Montana.

Enclosure 1

I-4-6

Table J-3 *
EVALUATION CRITERIA FOR NONENERGY MINERALS

CATEGORY	I	II	III	IV	V
1. Potential for Substantial Development/ Production Within Ten Years	High	Moderately high	Moderate *	Low	Very low based on current knowledge.
2 Current Activity Level	Production or development in progress or pending investment decision	Comprehensive exploration, development likely. May include some small scale production.	Exploration programs which may include sampling, geochemical and geophysical surveys, geologic mapping, reconnaissance drilling. May include some hobby-size producers.	Sporadic exploration with occasional isolated intense programs by companies or prospectors.	Occasional interest by prospectors
3 Land Position	Long-term maintenance of claims by established mineral companies/ individuals.	Long-term.	Intermittent by established mineral companies/individuals, long-term by prospectors.	Short-term by established companies/ individuals Intermittent by prospectors.	Sporadic
4 Geology	Known and favorable for development of significant ore deposits.	Known and considered favorable from comparison with other producing districts.	Not well known, but appears to have favorable characteristics.	Not well known, some favorable characteristics.	Either unknown or unfavorable
5 Reserve/Resource	Ore reserves established Will sustain significant production	Presence of, or strong potential for, substantial resources. May include small reserves.	Potential for large resource is unknown. Small resources, possibly some very small pockets of reserves.	Some mineral occurrences, but not enough information to establish resources.	Unknown

* Includes all areas not in other categories

Wallowa Whitman NF
EIS Appendices

J-10

Enclosure 2

Access Restriction Categories
Beaverhead N F, Montana

2

Category A — Withdrawn or proposed for withdrawal from mineral entry.

1. Wilderness areas.
2. Wild and scenic rivers
3. Sites for facilities
4. Historic and cultural sites
5. Developed recreation sites.

Category B — Statutes or executive orders require specific protection or mitigation measures.

1. Proposed wilderness areas.
2. Congressionally mandated wilderness study areas.
3. RARE II Further Planning areas.
4. T & E Species.
5. Roadless (Type I) dispersed recreation areas.
6. Culturally significant areas.

Category C — Special conditions exist on lands which require special lease stipulations or plan of operation conditions.

1. Big game winter range.
2. Elk calving area.
3. Riparian area.

Category D — Standard lease stipulations and plan of operation conditions apply.

1. Timber production areas.
2. Existing mineral processing areas.

Enclosure 3

02145

DK

Department of Energy
Bonneville Power Administration
P O Box 3621
Portland, Oregon 97208

DEC 29 1986

In reply refer to SJ

Mr. Dave Rittersbacher
Forest Supervisor
Ochoco National Forest
P.O. Box 490
Prineville, OR 97754

Dear Mr. Rittersbacher

Bonneville Power Administration (BPA) has reviewed the Proposed Land and Resource Management Plan and Draft Environmental Impact Statement (EIS) for the Ochoco National Forest and Crooked River National Grassland. We offer the following comments for your consideration.

1. Of particular importance to BPA is the designation of both existing and planned transportation and utility corridors. We could find no corridors on the EIS and Plan maps listed as "designated," nor was there any mention of corridor designation in the text. Designation of corridors should help avoid a proliferation of rights-of-way and should facilitate the timely and orderly development of future utility projects. Therefore, we request that you add this information to both documents.

2. To assist you in identifying corridors, we have enclosed a marked-up Proposed Alternative (Alternative E) Map illustrating existing BPA transmission grid lines as well as Central Electric Coop and Pacific Power & Light Co. (PP&L) lines. These lines should be shown on the other alternative maps also. Most of these transmission lines were not shown on the Land Adjustment Map in Appendix B1. BPA has no new projects in its current 10-Year Plan that would affect your Management Plan. You might want to contact utilities in your area for information on their plans or concerns.

3. It is difficult to identify in the Plan and EIS which management areas are considered "avoidance" or "exclusion" areas for energy transmission corridors. It would be desirable to have this information summarized in one section of the documents

4. We recommend that the Plan and EIS address renewable energy resources such as wind, hydroelectric, geothermal, small hydroelectric, or biomass. You could identify the type and amount of potential resources and the conflicts that may be associated with resource development. BPA has information available on Northwest energy resources, which we could provide to you.

5. The proposed alternative does not appear to have any adverse impacts on existing or planned transmission projects, therefore, we find it satisfactory from the corridor planning standpoint.

If you should have any questions on these comments or need more detailed information on planned and existing transmission corridors, please contact John Hooson, of the Division of Land Resources, Office of Engineering and Construction, at 230-3299 (FTS 429-3299).

Thank you for the opportunity to participate in the scoping process.

Sincerely,

Anthony R. Morrell
Environmental Manager

Enclosure
Proposed Alternatives Map

02152

U S ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE WASHINGTON 98101

DEC 29 1986

REPLY TO ATTN OF: M/S 443

Mr. Dave Rittersbacher
Forest Supervisor
Ochoco National Forest
P.O. Box 490
Prineville, Oregon 97754

Dear Mr. Rittersbacher:

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act, we have reviewed the Draft Environmental Impact Statement and Proposed Land and Resource Management Plan (DEIS and Plan) for the Ochoco National Forest (ONF) and the Crooked River National Grassland (CRNG). The ONF and CRNG are located in central Oregon and include 955,100 acres. The preferred alternative upon which the Plan is based provides for intensive timber management and grazing for parts of the forest. Big game habitat as well as developed and dispersed recreation would be emphasized. Geothermal, oil, and gas leasing would be permitted.

Based on our review, we have rated the DEIS EC-2 (Environmental Concerns-Insufficient Information). The basis for our rating is summarized below with details included in the enclosed review report. Our report is divided into three sections providing general and then specific comments on each document. Also enclosed is an explanation of our rating system for draft EISs.

Our primary concern is that the Plan be consistent with Oregon's adopted Statewide Water Quality Management Plan for Forest Practices required by the Clean Water Act. The Plan and DEIS should reference Oregon's Forest Practices Act and Rules and indicate how they will be complied with in the Plan. This is necessary to ensure that appropriate coordination occurs between the ONF and CRNG and Oregon's Departments of Environmental Quality and Forestry and that beneficial uses are protected.

In particular, standards and guidelines for Fisheries and Water need to be more fully discussed/developed in the Final EIS/Plan. These issues are presently discussed as a subset of the discussion on Riparian areas. In addition, standards and guidelines for Air need to be more fully discussed/developed with regard to how the Oregon State Implementation Plan would be met.

The details of our comments are included in the enclosed review report. Several of the items identified in this review were discussed in the meeting we had with your staff in Seattle on November 13, 1986, and in subsequent telephone conversations. This interaction has been useful for us in becoming familiar with issues on the ONF and CRNG.

The intent of our comments is to be constructive. We are confident that by addressing our concerns and comments the ONF can present a Final EIS and Plan which clearly shows that important resources will be adequately protected while providing ONF personnel with the necessary flexibility to manage day to day activities on the ground.

Thank you for the opportunity to review this DEIS and Plan. If you have any questions about our review, please contact Ann Uhrich of our EIS and Energy Review Section at (FTS) 399-8512.

Sincerely,

Robert S. Burd
Director, Water Division

Enclosure

cc Office of the Governor, State of Oregon
USFS, R-6
USFS, R-1, 4
Oregon DEQ
USFWS
NMFS
BLM
Oregon Forestry Dept.
ODFW
CRITFC
TWS
SC
IEPLC (Osborn)
Braun

U.S. ENVIRONMENTAL PROTECTION AGENCY REVIEW REPORT ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND AND RESOURCE MANAGEMENT PLAN FOR THE OCHOCO NATIONAL FOREST AND CROOKED RIVER NATIONAL GRASSLAND, OREGON

GENERAL COMMENTS

Process Description

The primary output of the National Forest planning process is the Land and Resources Management Plan (the Plan), and the heart of the Plan is the forestwide standards and guidelines and the more localized management area prescriptions These, in addition to the existing minimum management requirements (MMRs), set the backdrop against which goods and services are produced on the Forest and Grassland

A ready knowledge of these three things at the outset (standards and guidelines, prescriptions, and MMRs) would greatly facilitate the readers' understanding of the Plan Hence, a summary of how they are similar and/or how they vary would be helpful This might be appropriately put in the Plan in Chapter 1 under "Purpose," or in the Draft Environmental Impact Statement (DEIS) in Chapter 1 under "Planning Process"

The DEIS and the Plan rely heavily on subsequent environmental analyses and data collection for pinpointing specific impacts from forest activities In order that we can be assured that the environmental effects of the selected alternative are acceptable, we need to have a complete picture of the forest management process There are a number of elements within the forest management process that we believe are very important in minimizing adverse environmental impacts, particularly water quality effects They include

1. A data base of existing conditions from which technical experts and the public can judge expected effects and levels of uncertainty of the predictions

2. Best Management Practices (BMPs) and management area prescription development

3. Selection of BMPs for a particular activity [Environmental Assessment (EA) preparation] and how uncertainty is factored into selection

4. Thorough on-site inspection and administration, verifying that a particular activity is occurring consistent with BMPs and as prescribed in contracts, leases, or permits

5. Monitoring after the completion of an activity to determine whether predicted impacts were exceeded

6 Repairing damage caused by adverse effects that exceeded predictions

7 Upgrading BMPs or prescriptions to correct inaccurate predictions

The DEIS and Plan did a good job of describing the available data base and best management practices (BMPs) In general, the monitoring and evaluation program plan appears to be adequate for the various actions and effects to be monitored, though it would be improved by expanded discussion in the text (versus the condensed format of Table V-2) Selection of BMPs, on-site inspection, repairing damage, and upgrading BMPs have weaker commitments and are not clearly described

The most important component that is missing is a good description of how these elements are related and dependent on each other It would also be well to stress the iterative nature of the forest management planning process, in that information from the on-site inspections and monitoring can flow up to the management level to be used not only to modify management practice, but also to assist in the development of the forest's multi-year budget proposals, in an attempt to help circumvent implementation problems due solely to inadequate funding as opposed to technical difficulties

Water Quality and Monitoring

The DEIS notes that increased grazing (p 131) and exceeded threshold levels on individual watersheds (p 133) could each have negative impacts to water quality under the preferred alternative, but that these impacts "should be offset by the fairly high level of mitigation proposed " The DEIS then very aptly makes the statement that "this points to the need to develop and administer an effective monitoring plan to assure that minimum management requirements are met and that an effective level of mitigation is undertaken" (p 133) With this in mind, we believe the discussion of water quality monitoring and evaluation in the Plan (p 106) should be expanded For example, when and how would projects be selected to receive monitoring and mitigation? Also, monitoring helps assure standards and guidelines are met, not just minimum management requirements

The adequacy of the monitoring plan to assess environmental impacts, and methods to ensure that the assessments are used in management decisions, are key factors in EPA's ability to evaluate the adequacy of Forest Plans and EISs The monitoring plan together with the standards and guidelines should serve to highlight how the Plan will be implemented The Final Plan should clearly outline how monitoring will be carried out such that mid-course corrections can be made in forest management This serves as a system of accountability, reduces anxiety for any uncertainties in predicting Plan impacts, and makes it clear to the public how the plan will be implemented As the uncertainty in being able to protect against water quality and fish habitat effects increases, a higher level of monitoring becomes necessary

Domestic and Irrigation Water Supplies

According to discussions with the ONF planning staff, only one instance of domestic use of surface water (actually, spring water) occurs on the National Forest To ensure that any current and future drinking water supplies are protected, information on the existing source should be included in the Final EIS, including location, size, source, and municipality or number of people served A statement as to the lack of any other public supply watersheds should also be made Also, any instances of waterborne disease occurrences should be summarized, as should any pertinent water quality monitoring information (e g , for turbidity and fecal coliform levels)

Other questions relative to the domestic source are as follows Is the existing source in a highly sensitive watershed? What management area activities are planned for that watershed? Sensitive areas may be defined by such factors as the physical features of the watershed, the number of water users in the watershed, the type of water treatment employed, the location of water intakes, and past history of water quality problems The DEIS nicely identifies watershed sensitivity (p 75), but does not relate this to the existing public source This should be done even if the agreement with the users is of a verbal nature There may also be effects on ground-water supplies across the ONF and DRNG The potential impact of the proposed Plan on drinking water aquifers should be addressed

Fisheries/Fish Habitat

Chapter III of the DEIS provides a very good overview of existing knowledge of the status of fish habitat and fish population on the ONF by drainage However, since riparian areas and fishery impacts are discussed together in Chapter IV, it would be helpful if one more column was added to Table III-13, to be called "present riparian condition " Appendix A-4 in the Plan identifies one of these drainages as being in "poor" condition (Bear Creek), but the condition of the other drainages in Table III-13 is not identified The condition of all the drainage should be included in the Final EIS

Chapter IV of the DEIS presents a good description of the impacts to riparian areas and to fish habitat resulting from the various alternatives (pp 107-111), but the heading for the section is simply "Riparian " It should either be "Riparian and Fish Habitat," or perhaps "Fish Habitat" should be discussed separately in its own section The latter would probably be most appropriate since fish habitat is not solely a function of riparian condition, but is also closely tied to water quality (and water quality is a function of timber management, grazing management, ORV use, sanitary facility management at recreational facilities, and mining management as well as riparian area condition)

We agree with emphasis being placed on undertaking fish habitat/riparian improvement projects It should also be emphasized that fish habitat improvement work, while important and potentially very successful, does not take the place of avoiding impacts to the greatest extent practicable from the beginning

It is unclear how land was allotted to management areas 13 and 14 (riparian areas) Since they are not mapped, they should be described in the text, at least in terms of the distance from each stream type, etc

We are pleased that the DEIS considered not only presently utilized fish habitat on the ONF, but also included potential fish habitat Of the 200 miles of streams that have potential for additional cold water fisheries, how many miles are part of the John Day or Deschutes River drainages (and therefore potential habitat for anadromous fish)? Also, if Bear Creek presently supports anadromous fish, would it not follow that the Crooked River drainage (which includes Bear Creek) is also of importance to anadromous fish (though admittedly perhaps not as great as the other two major drainages)? Is there more potential habitat for anadromous fish in the Crooked River drainage?

Four of the streams listed in Table III-13 of the DEIS (Badger, Cottonwood, Black Canyon, and Wind Creek) are not listed in Appendix A-4 of the Plan, which lists streams with riparian areas to be maintained or enhanced for fish production Are they sub-drainages of streams listed in Appendix A-4 or were they inadvertently omitted?

We note that alternative C has the greatest potential for increasing habitat capability for rainbow trout and steelhead (p 108) The preferred alternative, E-Departure, would also increase capability, but not nearly as much as alternative C While it is realized that alternative C primarily attains its level of habitat capability goals by reduction in harvest level and livestock grazing (DEIS, p 135), other differences between the two alternatives appear to mainly relate to the number of improvement projects, which can be summarized as follows

	Alternative	
Project	E-Departure	C
Fencing	300 ac	500 ac
Beaver Transplants	50	100
Rock Structures	50	100
Woody Material	300	500
Log Weirs	300	500
	1,000 ac	1,700 ac

Since K-V funds increase as timber harvesting increases, we would anticipate that more funds would be available under the preferred alternative for habitat improvement than under alternative C It is therefore surprising that the amount of improvement work proposed under E-Departure is substantially less than for alternative C

Grazing

The ONF and CRNG provide a significant amount of livestock grazing in the Pacific Northwest Region It is not surprising, then, that certain range management problems exist Several specific allotments are identified where obligated AUM's exceed the estimated carrying capacity (Plan, Appendix F) and impacts due to overgrazing, particularly in riparian areas, are discussed in the DEIS (e g , p 107, 123, 130) Though damage to soil, vegetation, and water quality is mentioned as occurring, specific problem areas are not identified Of the drainages listed in Appendix A-4 of the Plan, it can be inferred that most of those are degraded because of grazing related rather than timber related impacts Adverse impacts related to grazing would therefore seem to be rather widespread

The Final EIS should identify the areas where grazing related water quality or other riparian area problems exist A table which combines the data presented in Appendix A-4 with those of Table III-13 (DEIS, p 78) would then nicely suffice as a summary of how the anadromous fish habitat would be maintained or improved

In general, domestic water supply watersheds and anadromous fish habitat should be managed for particularly high levels of protection Where it is determined that impacts to these beneficial uses have occurred or would be unavoidable, serious consideration should be given to defining grazing as an incompatible use and livestock should be excluded The ONF is to be commended for recognition and incorporation of this fact via plans for fencing, as described under Riparian Enhancement (DEIS, p 150) The U S Bureau of Land Management (BLM) conducted a fencing study along Camp Creek (tributary to the Crooked River) which was highly successful (1) No doubt such a strategy could be successful on the ONF and CRNG as well

Riparian Area Management

The importance of riparian zones to water quality and fish and wildlife habitat quality greatly exceeds the actual area occupied by riparian vegetation Any evaluation of the cost effectiveness of timber harvesting or grazing in these areas should reflect this fact It is essential to carefully explain how activities such as timber harvesting and livestock grazing can be made compatible with other riparian area resource values (e g , protecting and enhancing water quality and fish habitat potential), keeping in mind that it may not be possible to replace these other resource values elsewhere on the Forest

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(1) Winegar, Harold "Camp Creek Channel Fencing Plant, Wildlife, Soil and Water Response " In Rangeman's Journal Feb , 1977, and Winegar, Harold Streamflow Augmentation Through Riparian Recovery (Unpublished 1982)

It was gratifying to see Riparian Area management standards separately presented in the Plan It is also commendable that those drainages listed as sensitive are the same ones to be maintained or improved to "excellent" riparian condition However, the implication that fair to excellent riparian conditions will automatically result in good smolt habitat and/or streams meeting state water quality criteria (DEIS, p 93, App A, p 30) are assumptions that will need to be confirmed via the planned monitoring program Hence, we believe the discussion of riparian monitoring and evaluation in the Plan (pp 105-106) should be expanded For example when and how would drainages be selected to receive monitoring?

It is apparent that several drainages need to be improved such that they could even meet MMRs Will this effort be undertaken first, and then implementation of prescriptions 13 and 14? If so, this should be stated in the Plan Also, as proposed, timber harvest and grazing would be allowable in essentially all riparian areas as long as Standards and Guidelines (and prescriptions 13 and 14) were met We would submit that this, again, points to the need for monitoring and mitigation programs that are built into the budget process for the forest For example, the Plan states that additional water developments would be constructed "where analysis shows these developments to be cost efficient" (p 67) Since additional water developments may very well be critical to the success of riparian prescriptions (p 94), we propose that serious consideration should be given to funding such developments from this standpoint

Mining

It is well to state in the standards and guidelines that management or operating plans will be developed for each area where a mineral source is to be developed, and list the items to be covered in such plans (Plan, p 49) However, for locatable minerals we believe the Plan should include water quality monitoring requirements for sites with the potential to affect water quality and beneficial uses Water quality monitoring data may be needed to ensure compliance with the minerals management plan

The ground-disturbing potential of energy development or mining activities is discussed under cultural resources (DEIS, p 145), but not under mineral exploration (DEIS, pp 152-154) This potential and subsequent potential environmental impacts on water quality, as well as cultural resources, should be discussed under mineral exploration, not simply how other activities could impede such exploration

Air Quality

Approximately 13,100 cords of firewood are projected to be taken for personal use from the ONF each year over the first decade There has been a 2330% increase in firewood permits issued by the Forest and Grassland from 1971 to 1981 The DEIS correctly identifies indirect effects on winter air quality in local urban communities via the firewood provided by the ONF and CRNG However, it is not stated that there are potential health effects

Forest land managers that provide firewood have a unique opportunity to educate the public regarding fuelwood use and air pollution through the permit process Pamphlets discussing the association between wood stoves, air pollution, and health concerns, or providing tips on efficient wood stove operation, for example, could be distributed with fuelwood permits If appropriate literature is not readily available, we would be happy to provide examples that are being used elsewhere

The Plan should provide more guidance on minimizing air quality impacts from slash burnings (p 43) How does the ONF propose to meet the Oregon SIP (e g , regulating timing and amount of slash burning, etc)? The Plan should describe the measures to be used to assure that peak air quality impact episodes will be kept to a minimum, as well as those to be used to assure that average annual emissions do not exceed standards

Cumulative Impacts

We have discussed the use of "area analyses" with other national forests and generally support their use It appears that much of the detailed analysis we believe to be necessary, but which the Forest Plan does not provide and can be missed by individual project evaluations, could be performed at this level of study Area analyses would be the most appropriate vehicles for evaluating the cumulative effects of many similar activities, and the combined effects of different types of activities, occurring in a fairly large area and over a period of time

Because detailed and specific analysis of cumulative impacts is extremely important, the Final Plan should discuss in some detail the process for assessing these effects For example, for how large an area (2nd order drainages?) would such analyses be performed? What period of time between projects would be considered? Would all activities producing sediment in the area be included (e g , timber harvest, plus roads, mines, grazing, etc)? How will multiple ownership drainages fit into these analyses? Will documents be prepared and available for public review and comment?

We believe that an area analysis would be appropriate for all watersheds in which development is planned near important aquatic resources We further believe that such analyses should generally receive public review as Draft EAs or EISs, depending upon the source conflict potential of the projects

SPECIFIC COMMENTS ON DEIS

XVIII Table S-4 Management Area numbers were omitted from column one

XXI A short description of how these directives were incorporated would be helpful (e g , are they part of MMRs or standards and guidelines?)

XXIII Are there any ongoing activities on the ONF or CRNG which involve toxic and hazardous materials? If so or if not, this should be mentioned

XXV As "short-term" and "long-term" are defined in the glossary, increases in road densities could create impacts in a period of time much shorter that "short-term "

1 Since the Plan covers essentially the next 15 years, we would suggest that this be the time period for "long-term effects" and that a shorter period, say 5 years, be the time period for "short-term effects," in the glossary (p 203 & 210) There are many environmental effects, water quality among them, for which 15 years would be considered long-term

8 Which streams have fallen below state water quality standards? For which stream segments, and for what parameters?

29 The riparian acreage in alternative D totals 19,400 acres Is this correct? We understood 19,000 acres to be the maximum total

35 The riparian area in alternative E totals 20,500 acres Is this correct?

68 Can we assume that stream condition categories "fair" through "excellent" meet state water quality standards, but that "poor" does not?

74 It is our understanding that there are 24 major watersheds on the ONF and CRNG, 22 on the forest and 2 on the grassland Is this correct?

75 Two watersheds are apparently missing from Table III-11 Also, since there are about 800 miles of streamside areas (p 68), essentially all of the streams would appear to be potentially suitable for trout Is this correct?

78 Cottonwood, Black Canyon, and Wind Creek drainages are not mapped on p 74 Are they part of larger drainages? If so, which ones?

82 Of the 800 mining claims currently located on the forest, how many are placer mines? Drift claims?

87-88 The text mentions six roadless areas, but the figure (p 88) shows eight Which is correct?

89 In Table III-25, line IV appears to be in error Should it not be as follows 575,375 - [(31,072) + (23,551-12,425)] - 533,177

94 Acreages for wilderness areas listed here do not agree with those on p 4 of the DEIS, nor with numbers presented in the Plan

95 Column 2, paragraph 3, last sentence This sentence seems to have lost part of its meaning

104 It is our understanding that, as of this writing, the state of Oregon has not completed revising its existing SIP for managing air quality The text implies there is currently no such plan

115 Where are the high clay soils located?

119 Cumulative effects The potential for erosion from other ownerships plus the NF should be discussed

130 If mining will be allowed on 80-90% of the NF, how can it be said that mining would have a "minor effect on the water resource"? Many "small" mining projects put together could have a larger cumulative effect, particularly if road building increased due to mining projects

131 Will grazing increase by 9% <u>per year</u>? Elsewhere 10 8% is cited for the first <u>decade</u>

133 We understood the NF to have 22 major watersheds, not 24, as stated here

177 Increased costs in grazing management are not really "environmental" effects

<u>Glossary</u>

195 Is "acceptable riparian condition" the equivalent of "fair" or "good" (p 68)?

201, 211 Guidelines (p 201) and standards (p 211) have two separate and distinct meanings here, as well they should However, we do not find these meanings carried over into the Plan, which gives no indication as to which requirements are the "mandatory" standards and which are the "non-mandatory" guidelines We believe that the Plan would be improved if it reflected these definitions

204 It would be helpful to add a sentence as to how MMRs differ from other standards described in the Plan

204 The definition of monitoring might be improved by adding a clause such as " and to use identified deviations as a trigger for revision of management practices and/or plan revision "

SPECIFIC COMMENTS ON THE PLAN

1 It is recognized that the annual budget will influence the level of projected outputs and plan implementation, however, certain categories of activities should not be excluded at the expense of others. In particular, mitigation measures and standards and guidelines designed to protect or enhance resources should not be "tabled" while other Plan goals are met

2 In prioritizing the development of forest level plans, we would encourage making the Allotment Management Plan one of the first (if not the first) to be prepared This is because it will have a direct bearing on riparian areas, water quality, and the protection of beneficial uses Also, it would seem that guidance for mineral extraction would be helpful to forest managers, perhaps in the form of a Mineral Extraction Management Plan

13 The acreages cited here for wilderness areas do not coincide with those cited in the DEIS on page 94 Which is correct?

5-13 Under Current Situation/Resources there is no discussion of soils This should be added

21 How will research needs be prioritized? How will they be funded? For example, given that state water quality standards are not now met by certain streams on the ONF and CRNG, we believe the riparian area research needs cited here to be of utmost importance What assurances are there that they will be carried out in a timely manner?

26 It is stated that livestock will have less impact on riparian areas and will be better distributed, due in large part to water developments However, in management prescription #1 (pg 67) it is stated that water developments would be constructed "where project level analysis shows these developments to be cost efficient " If not found to be cost efficient, do we assume that impact to riparian areas could continue? This is confusing

27 Is there a commitment to improving a certain number of acres per year in riparian areas? To realize the goal of 7,500 acres of improvement by the year 2000 will require timely implementation of enhancement projects and management strategies under prescriptions #13 and #14

Standards and Guidelines

48 The items listed under a minerals management plan are good, but the *Forest Service role in monitoring and enforcement of the operating* plan requirements should be described, particularly with regard to water quality Also, a general description of the process under which operating plans would be approved or disapproved in sensitive areas would help to strengthen this portion of the Plan

52 The riparian discussion should refer the reader to appendices A-1 and A-4

MANAGEMENT AREA PRESCRIPTIONS

93, 95 *The total acreage of management areas #13 and #14, as given here,* is 15,886 acres This does not coincide with the 19,000 acre figure given throughout the rest of the Plan and the DEIS for total riparian area Why? Also, it is stated that these prescriptions will apply to designated watersheds This implies that some watersheds would not be designated and would therefore lack specific protection under these prescriptions Would the remaining acres simply be covered by the other standards and guidelines? If not mapped, these areas should at least be described as to which drainages they occur in

94 How would ORV use be "discouraged?"

94, 97 "Water Management" practices should refer to the monitoring plan so as to describe how goals would be attained

MONITORING PLAN

102-108 This is a nice summary of such a plan, however, further detail should be provided, particularly on aspects of the plan which pertain to meeting federally or state mandated standards or regulations, such that reviewers can ascertain that correct parameters will be monitored at the correct time(s)

102-103 The reporting period for habitat condition monitoring of wildlife and anadromous fish would need to be more frequent than every 5 years if individual projects are to be revised before significant damage has occurred

105 A similar argument as the one above can be made for riparian areas

109 A portion of the title of Table V-3 seems to be missing

A-4 This table does not address future maintenance or improvement of the following anadromous fish drainages Badger, Cottonwood, Black Canyon, and Wind Creek Why not?

H-1 Is it the case that there are 22 major watersheds on the Forest and that 20 of these are forested? Are the other two watersheds in range?

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9K

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Portland Field Office
727 NE 24th Street
Portland OR 97232

January 16, 1987

Ref 1-7-87-F-2

Dave Rittersbacher Forest Supervisor
United States Department of Agriculture
Forest Service
Ochoco National Forest
P O Box 490
Prineville Oregon 97754

Dear Mr Rittersbacher

This is in reply to your agency's letter of October 2, 1986 which was received on October 8 1986, requesting formal consultation with the Fish and Wildlife Service (the Service) as described and required by Section 7(a) of the Endangered Species Act of 1973, 16 U S C 1531 et seq (the Act) This consultation addresses the possible effects of selecting Alternative E-Departure of the Draft Environmental Impact Statement (DEIS), Proposed Land and Resource Management Plan (Forest Plan), and Appendices The subsequent impacts of this proposal to the bald eagle (Haliaeetus leucocephalus), federally classified as threatened in Oregon and the peregrine falcon (Falco peregrinus anatum), federally classified as endangered within the State of Oregon, are discussed herein

Candidate species are not subject to the provisions of Section 7 of the Endangered Species Act Therefore, the determination of jeopardy or non-jeopardy to candidate species will not be addressed in this Biological Opinion However, candidate species will be discussed since they occur or may occur on Ochoco National Forest and Crooked River National Grasslands and may be affected by Forest actions

On January 16, 1987, we completed our endangered species review of the proposed project During the course of our review other individuals were contacted who had special knowledge or expertise concerning the proposed project, project area, or threatened and endangered species in the area These include

Bernie Carter, Ochoco National Forest, Prineville, Oregon
Dr Robert Anthony, Oregon State University Cooperative Wildlife Research Unit
Frank Isaacs, Oregon State University, Cooperative Wildlife Research it
Harlan Scott, Oregon Department of Fish and Wildlife, Prineville, Oregon
Mary Walters, Oregon Department of Fish and Wildlife Corvallis, Oregon
Rich Howard, U S Fish and Wildlife Service, Boise Idaho
Robert Parenti, U S Fish and Wildlife Service, Boise, Idaho

An extension was requested by the Service on December 17 1986 and acknowledged by Ochoco National Forest on December 29 1986 A biological assessment on bald eagle and peregrine falcon was received on October 21, 1986

BIOLOGICAL OPINION

It is our Biological Opinion that implementation of the proposed Alternative E-Departure of the Ochoco National Forest and Crooked River National Grasslands Forest Plan is not likely to jeopardize the continued existence of the bald eagle and peregrine falcon Further informal consultation will be needed and further formal consultation may be needed on project specific actions as the Forest implements the Plan

DESCRIPTION OF ACTIVITY

The proposed Forest Plan sets forth Forest-wide goals and objectives land use allocations, management area prescriptions standards and guidelines, and monitoring and evaluation requirements to establish direction for management of the Ochoco National Forest over the next 50 years The Forest Plan will be revised on a 10-year cycle The Forest Plan is based on the preferred Alternative E-Departure

Alternative E-Departure emphasizes a combination of timber production, roadless recreation, and big game habitat Timber is scheduled as a departure from nondeclining yield Timber harvests are scheduled so that first decade volumes remain close to current levels, and then decline over the next 10 to 50 years The departure is designed to maintain local jobs in the short term All resources are managed or maintained at some moderate level

Bald eagle

Management guidelines for the protection of bald eagle nest and roost trees occupied during the breeding season are outlined in the Forest Plan (page 62) and Appendix D (page D-26) These have been adopted from the Bald and Golden Eagle Protection Act

The Forest Plan (page 61) and the Biological Assessment indicate that the preservation of actual and potential bald eagle winter roost sites is a goal In addition, it is the expressed intent of Ochoco National Forest to utilize the findings and recommendations of the 1986-1987 bald eagle winter roost survey conducted by the Oregon Cooperative Wildlife Research Unit Preliminary recommendations include the development of site-specific management plans for each roost site with input from the Service through Section 7 consultation (Isaacs et al, 1986) No written management plans have been prepared for any roost as of yet However, management plans are on schedule for development in 1988-1989 (Carter, pers comm) Where roosts have been located, modifications to the timber harvest schedule have been made in consultation with the Service

Regarding recovery and Recovery Plans, a general statement has been included in the Forest Plan (page 62) and Appendix D (page D-25) that recovery plans take precedence over other management direction No other details regarding recovery plan implementation are provided in the Forest Plan

Peregrine falcon

No management provisions have been included in the Forest Plan specifically for the peregrine falcon Some general guidelines have been prescribed for the protection of raptor hawk and prairie falcon nesting habitat (Forest Plan, page 62-63, Appendix D, page D-26 and D-27)

Candidate species

Regarding federal candidate wildlife species, the Forest Plan (page 63) and Appendix D (page D-25) indicate that consultation with the Service will be initiated when conflicts between project activities occur, when habitat needs cannot be resolved, when uncertainty exists, when species management guides are developed or when other technical assistance is needed In addition, inventories of essential habitats are to be maintained

Regarding federal candidate plant species, the Forest Plan (page 56, item 1) and Appendix D (page D-18 item 1) indicate that project activities will be screened for known and suspected locations of sensitive (which include federal candidate) species When suitable habitats or reported locations are suspected to occur, a field reconnaissance is to be performed (item 3) Item 4 indicates that safeguards will be identified, and project personnel notified and held responsible for implementation of safeguards Item 6 indicates that if other high values or uses would be foregone if the proposed activity were modified or deferred, additional study and assessments may be needed before an appropriate course of action is determined with input from appropriate state and Federal agencies

SPECIES ACCOUNT

Bald Eagle

There are currently no known active bald eagle nesting territories within the Ochoco National Forest and Crooked River National Grassland Historical records indicate that a bald eagle breeding territory was once associated with Big Summitt Prairie

The draft Pacific States Bald Eagle Recovery Plan indicates that Big Summitt Prairie and Lake Billy Chinook may have the potential for supporting one and two bald eagle breeding territories respectively It is likely that potential bald eagle breeding territories in these areas would involve Ochoco National Forest and Crooked River National Grassland lands

A population of wintering bald eagles occurs along the upper Crooked River drainage in central Oregon As many as 115 bald eagles have been observed during peak periods In addition to roosts on private lands the bald eagles roost in forest lands adjacent to valley foraging areas along the Crooked River Roost trees tend to be the largest, dominant or co-dominant conifer trees in roost stands Coniferous roost trees are larger than the United States Department of Agriculture, Forest Service minimum old-growth specifications for ponderosa pine forest type (Isaacs et al, 1986)

The primary food source available to bald eagles in this area consists of dead cattle, road kill deer, dead calves and afterbirths, and ground squirrels (Carter, pers comm , Isaacs et al, 1986)

Inventories and surveys were conducted in 1983, 1984 and winter of 1985-1986 to locate winter roost areas The 1983 and 1984 inventory resulted in locating two roosts (Pine Springs Canyon, Miller Canyon) on the Snow Mountain Ranger district and one roost on Bureau of Land Management lands accessible through Forest Service roads

A 2-year survey which began in the winter of 1985-1986 was contracted out by Ochoco National Forest to the Oregon Cooperative Wildlife Research Unit to investigate and locate suspected winter roosts in the Pine Creek drainage, Shotgun Creek drainage, Wolf Creek drainage, Sugar Creek drainage around Big Summitt Prairie and McKay Creek Winter roosts are expected in these areas because they contain coniferous trees with suitable characteristics for roosting by bald eagles and/or sightings of eagles flying in the direction of these areas have been noted

Peregrine Falcon

No active nests have been observed on the Ochoco National Forest or Crooked River National Grassland No records of nesting or nest sites on Ochoco National Forest are known to exist Peregrine falcon sightings noted by or reported to the Forest Service and the Oregon Department of Fish and Wildlife occur at a frequency of one or two every winter

Potential habitats for breeding and overwintering by peregrine falcons have not been evaluated to any detail Cliffs, talus, and cave habitats are available on the Ochoco National Forest While such habitats may provide suitable habitat for peregrine falcons, these habitats are currently occupied by prairie falcons

The Recovery Plan for Peregrine Falcon (Pacific Population) indicates a need for two breeding pairs in the management unit which includes portions of Ochoco National Forest

Candidate Species

Federal candidate wildlife species which may occur on Ochoco National Forest and Crooked River National Grasslands include Swainson's hawk, Ferruginous hawk western sage grouse, western snowy plover, tricolor blackbird, spotted bat Townsend's big-eared bat, California wolverine, and California bighorn

Based upon available information, the following federal candidate plants may occur on Ochoco National Forest and Crooked River National Grasslands

Species	Occurrence	Status
Allium madium	D	3C
Allium pleianthum	S	3B
Artemisia ludoviciana	S	2
Astragalus diaphanus	S	2
Astragalus pegetarioides	S	2
Calochorus longebarbartus peckii	D	2
Collomia macrocalyx	D	2
Lupinus biddlei	S	2
Lupinus cusickii	S	2
Silene scaposa var scaposa	S	2

D - Documented S-Suspected

2 - Category 2 consists of taxa for which existing information indicates listing may be warranted, but for which substantial biological information to support a proposed rule is lacking

3B - Category 3B consists of taxa which are not being considered for listing on the basis of current taxonomic understanding These taxa could be reevaluated in the future on the basis of subsequent research

3C - Category 3C consists of taxa which are not being considered for listing on the basis of being more abundant or widespread than previously believed or lack of any identifiable threats These taxa could be reevaluated in the future should further research or changes in land use indicate a significant decline

It should be noted that candidate species have no protection under the Endangered Species Act, although additional protection for these species may be provided by internal policy

EFFECTS OF THE ACTION

Bald eagle

The plan (page 62) and Appendix (page D-26) itemizes prescriptions to protect bald and golden eagle nest, roost, and perch trees utilized during the breeding season While these prescriptions may be in conformance to the Bald and Golden Eagle Protection Act, they do not incorporate the best scientific data available on the protection and management of bald eagles, and thus may not adequately protect essential breeding habitat for bald eagles In Oregon breeding eagles may begin to occupy or establish a breeding territory as early as January 1 However, since there are no breeding eagles presently on Ochoco National Forest, no impact to breeding bald eagles are anticipated at this time from the proposed action

The biological assessment indicates that timber harvest activities and road construction could affect bald eagle winter roosting without implementation of management constraints However, there appears to have been considerable effort to identify winter roost sites While not all roosts have been identified to date, surveys are currently being conducted to identify remaining existing and potential winter roost areas in suspected areas on and adjacent to Ochoco National Forest and Crooked River National Grassland The biological assessment indicates that it is the intent of Ochoco National Forest to utilize the findings of the surveys and follow the management recommendations for preserving the integrity of actual and potential bald eagle winter roost sites The biological assessment further indicates that these management guides will be developed with input from Oregon Cooperative Wildlife Research Unit, U S Fish and Wildlife Service, Oregon Department of Fish and Wildlife, and Oregon Natural Heritage Data Base

While the Forest Plan (page 62) and Appendix D (page D-25) indicate that recovery plans will take precedence over other management directions, no specific actions have been identified in these documents appropriate sections, or other supporting documents regarding the inventory and protection of potential or suitable bald eagle nesting habitat

Peregrine falcon

Based upon recorded sightings, the peregrine falcon appears to be a rare migrant through Ochoco National Forest lands at present time The likelihood that a peregrine falcon would be affected by a forest action at present time appears extremely remote

Wildlife management guidelines directed to protect breeding prairie falcons and their nesting habitat should provide some measure of protection for peregrine falcons in the event peregrines establish an eyrie within Ochoco National Forest

As recovery efforts for the peregrine falcon gain momentum in the Pacific Northwest, the importance and magnitude of monitoring should increase over the next 10 years The level and rate of increase is impossible to predict with available information

Candidate Species

Management guidelines have been outlined for various raptors which should provide some management for nesting habitat for candidate hawk species However, similar guidelines are lacking for other candidate species and non-breeding habitat requirements of raptors In addition, inventory and monitoring procedures are not clearly defined for any candidate wildlife species No implementation plan has been provided for various candidate wildlife species References to inventories are generally made with no clearly defined time or monetary budgets to indicate what minimum level of effort is expected to occur during implementation of the Forest Plan

It is unclear whether or not items 4 and 6 (see DESCRIPTION OF ACTIVITY, Candidate species) apply to candidate or only listed plant species Should items 4 and 6 apply only to federally listed threatened and endangered plant species and not candidates, then the action the forest will take on candidate plants or in determining the action to be taken on candidate plants has not been defined in the Forest Plan If these items extend to consideration of candidate species then the procedures would appear to be in place to avoid impacts wherever possible However, if a decision is made to proceed with an activity which may or will adversely affect a candidate species, the outlined procedures do not indicate that monitoring of the impact and/or a post-project evaluation of affect to the population will be documented Such information would provide a valuable basis for consideration of similar activities in the future

The sensitive plant species list provided in the DEIS (page 73) does not reflect accurate information regarding federal candidate plant species If this list is used as a basis for management decisions and as long as a procedure for the periodic updating of a candidate species list is not defined some avoidable forest actions may have an adverse affect on candidate plant species

CUMULATIVE EFFECTS

Cumulative effects are those impacts of future State and private actions which are reasonably certain to occur A non-federal action is 'reasonably certain" to occur if the action requires the approval of a State or local resource or land-use control agency, and such agencies have essentially approved the action In regard to the bald eagle and peregrine falcon, we know of no cumulative State or private actions that will occur in areas adjacent and within Ochoco National Forest at this time

INCIDENTAL TAKE

We anticipate the incidental take attributable to implementation of the Forest Plan preferred Alternative E-Departure to be zero (0)

CONSERVATION RECOMMENDATIONS

In the furtherance of the purpose of Section 2(c) and 7(a)(1) of the Act,

which mandate federal agencies to carry out programs for the conservation of listed species, we recommend that the following conservation measures be implemented to further conserve and avoid adverse impacts to bald eagles peregrine falcons and candidate species

General

1 Management Areas with known or suspected essential, critical, or potential habitat for listed species should be noted in Section V of the Forest Plan (pages 63-98) An alternative would be to designate a separate Management Area which provides for the management and protection of known and suspected essential, critical, and potential habitats of threatened and endangered species (and selected sensitive species) This alternative was used by the Deschutes National Forest

2 The Monitoring and Evaluation Program Plan of the Forest Plan (Table V-2, pages 102-109) should be expanded to provide greater detail by species and monitoring objective, i e , bald eagle productivity survey bald eagle winter roost inventory, bald eagle potential nesting habitat survey, peregrine falcon inventory, candidate species and habitat status determination habitat enhancement actions

3 Threatened, endangered, and candidate species should be added as an action and effect to be monitored under the following resource/activity categories Recreation, Timber, Range (Forest Plan, page 102-109)

4 Coordinate with the Oregon Natural Heritage Program the Oregon Department of Fish and Wildlife, and the Service to exchange information on the status and distribution of threatened, endangered, and candidate (or sensitive) species This should be added as an item to the section on Threatened, Endangered, and Sensitive Wildlife Species in the Forest Plan (page 62) and Appendix D (page D-25)

Bald eagle

1 Develop site specific habitat management plans for each individual bald eagle winter roost site and breeding territory in informal consultation with the Service An implementation plan for the development of these habitat management plans should also be documented in the Forest Plan or referenced in the Forest Plan if one already exists

2 Conduct an inventory of potential breeding habitat Tree stands with characteristics suitable for nesting bald eagles should be identified and protected If necessary, develop management prescriptions designed to preserve or enhance desirable nest tree characteristics in informal consultation with the Service An implementation plan for conducting this inventory should be developed

3 Prescriptions to protect bald eagle nest trees should be developed in consultation with the Service Regarding the section on Bald and Golden Eagles in the Forest Plan (page 62) and Appendix D (page D-26) the following changes should be made

Either

a Delete all references to bald eagle in this section, and

b Indicate that Section 7 consultation with Service will be initiated in the event bald eagles establish a breeding territory in or adjacent to Ochoco National Forest and/or Crooked River National Grassland lands

Or

a Change "March 1" to "January 1", and

b Indicate that additional management considerations may be necessary to protect bald eagle breeding and non-breeding habitats and that these will be determined in consultation with the Service

4 Maintain winter inventories of bald eagles which can be used to establish long-term winter population trends

Peregrine falcon

1 Maintain records of sightings to establish long-term trends

2 Conduct periodic inventories to determine status of the species on forest lands

3 Identify and preserve the integrity of potential nesting and non-breeding habitat

Candidate Species

1 Adverse impacts to candidate species should be avoided wherever possible and technical assistance sought from appropriate state and federal agencies and academic organizations or institutions when adverse impacts appear to be unavoidable When adverse impacts to candidate species are unavoidable, the effects should be monitored and documented

2 On page 56 of the Forest Plan, the Section name is mistitled and should read 'Plant" rather than "Wildlife"

3 In the Forest Plan, references to "jeopardize" on item 4, page 56 should be changed to "may adversely affect" to avoid confusion with the legal definition of the term "jeopardize

4 Coordination with the Oregon Natural Heritage Program should be added to the Forest Plan, page 56, item 7

5 An accurate candidate plant list should be provided in the DEIS, page 73 A statement which clearly defines the procedure and time frame to be used for the periodic updating of plant status information should also be included in the DEIS (page 73), the Forest Plan (page 56), and/or Appendix D (page D-18)

This concludes formal consultation on this project If the proposal is significantly modified in a manner which would change the impacts on bald eagles and/or peregrine falcons as discussed in this Opinion if new information is learned about theses species that could change the conclusions of this Opinion, if a new species occurring in the area is listed or if there is incidental take of bald eagle and/or peregrine falcon which exceeds that specified in this Opinion, formal consultation should be reinitiated Your decision regarding the recommendations presented in this Opinion should be sent to this office

We appreciate the cooperation expressed by your staff members during this consultation

Sincerely,

Russell D Peterson
Field Supervisor

Enclosure

cc OES
RO-FWE (SE)
BFO-SE
OFO-SE

REFERENCES

Carter B 1986 and 1987 Personal communication Ochoco National Forest and Crooked River National Grassland Prineville Oregon

Isaacs, F 1987 Personal communication Oregon State University, Cooperative Wildlife Research Unit Corvallis, Oregon

Isaacs, F , T Bryan R Goggans & R Anthony 1986 Habits of Bald Eagles Wintering along the Crooked River, Crook County, Oregon, 1986 Oregon State University, Oregon Cooperative Wildlife Research Unit Corvallis, Oregon

VICTOR ATIYEH
GOVERNOR

Department of Fish and Wildlife

506 SW MILL STREET, P O BOX 59, PORTLAND, OREGON 97207

November 10, 1986

James E Brown
State Forester
Department of Forestry
2600 State Street
Salem, Oregon 97310

Dear Jim

The Oregon Department of Fish and Wildlife staff has reviewed the Ochoco National Forest Plan documents and has attached comments to this letter

The Ochoco National Forest is to be congratulated on their completion of the Draft EIS and Draft Forest Plan We recognize that this is a culmination of many years of work by a very dedicated staff Review of this plan, years in preparation by many people, in the very short time frame provided, by a small staff is at best an arduous task Hopefully we have not misunderstood the issues or information provided Our comments and recommendations are meant to be constructive and hopefully will lead to positive results

We find no alternative that we can support in total The land allocations for commodities (MA1) and big game (MA2 and 3) are at extremes in each alternative We feel that there is a need for an alternative with a better balance of integrated resource management There are issue responses scattered through the alternatives that would meet demand, as we see it, for fish and wildlife resources during the life of the plan Our comments are based on what we feel are wildlife resource needs and we hope our recommendations will be reflected in the selected alternative

It should be pointed out at the outset that we find any departure alternative objectionable because wildlife resources would be diminished by overall reduction of habitat for a short term economic gain Accelerated harvest will risk recreational opportunities associated with fish and wildlife

This response to the Forest Plan is based on our understanding of NFMA and key provisions of the policy of the State of Oregon which, by statute, in part declare

> " wildlife shall be managed to provide the optimum recreational and aesthetic benefits for present and future generations of the citizens of this state In furtherance of this policy, the goals of wildlife management are

1) To maintain all species of fish and wildlife at optimum levels and prevent the serious depletion of any indigenous species

2) To develop and manage the lands and waters of this state in a manner that will enhance the production and public enjoyment of wildlife "

It is to those ends we reiterate messages we have continued to send forest managers about habitat components that are at risk with or benefit from commodity extractions The State of Oregon needs

1) Its basic soil resources and productivity
2) Dependable supplies of clean water
3) A diverse and dynamic range and forest ecosystems, changing over time and in arrangement with multiple resource management, but never losing its inherent capacity to deliver all kinds of public benefits
4) Forage management for grazing animals that is intolerant of resource degradation
5) Management of riparian vegetation in a condition meeting 1979 interagency optimal guidelines
6) Forestwide management of motorized vehicle use

We feel we are espousing a realistic and reasonable position on the amounts and condition of needed habitats The forest has been supplied the Department's forest planning review criteria as an aid A wealth of research has been compiled that describes what is necessary to enhance wildlife and wildlife habitats Our response also addresses maintenance of non-diminishing hunting opportunities and enhancement of all wildlife related resources

In reviewing the plan we find that there are five issues that have not been satisfactorily addressed

1) Riparian conditions on the Forest are below standard The Plan did not follow definitions or inventory methods described in "Managing Riparian Ecosystems for Fish and Wildlife in Eastern Oregon And Eastern Washington, 1979 " The plan does not place acceptable emphasis or direction for riparian zone restoration

2) Information on livestock grazing is not sufficient for an EIS There is not enough data on management systems, condition and trend, actual use, or improvement programs to evaluate effects of the grazing program

3) Roading poses a problem for wildlife managers The Plan is deficient in resolving the impacts of roading on habitat effectiveness and hunting quality

4) Much big game winter range on the Forest was not acknowledged as such, important transition ranges were also omitted

5) Snag management proposals will not meet future requirements for snag dependent species

These five issues will be discussed in detail as we address our planning criteria, but it is important that these issues be pointed out at the onset

Sincerely,

Randy Fisher
Director

rrj
Attachments

L4-11

Oregon Department of Fish and Wildlife Comments on
Ochoco National Forest
Draft Environmental Impact Statement and Proposed Plan
November 7, 1986

This portion of the comments deal with how the Proposed Plan addresses the 12 issues identified by the Ochoco National Forest with respect to fish, wildlife and habitats

Additional comments are added to express the Oregon Department of Fish and Wildlife (ODFW) concerns and recommendations for Forestwide Standards and Guidelines, Management Area Standards and Guidelines, and the proposed Monitoring Plan Additional comments and questions on sections of the plan are listed under General Comments

Issue One Timber Production

The proposed plan states that the Forest has 495,006 acres of land suitable for timber production We recognize that most of this suitable timber land is allocated to intensive timber management (MA1) while lesser amounts are spread across MA2, 3, 5, 6, 7, and 10

The proposed plan allocates 547,072 acres to MA1 general forest which is approximately 52,000 acres more than the suitable timber base With this in mind and the fact that various amounts of the suitable timber base acreage are in other land allocation there appears to be room to better integrate the general forest allocation with other resource allocations

Seven of 11 alternatives allocated zero acres to either general forest or big game (an all or nothing situation) In alternatives E, E-Departure, and G the allocation of general forest is 7 to 8 times that of big game winter range Alternative "A" allocation to general forest is approximately 20 times that of big game winter range

Salvage Program To ensure that this program is not working in opposition to and at the expense of snag objectives, baseline snag levels need to be determined for the defined management area

As mentioned in the cover letter we do not support a departure alternative due to long-term impacts on wildlife, wildlife habitat and wildlife based recreation for short-term economic gains.

In reference to demand the Proposed Plan (p 14) states "The Forest does not have the capability to meet local demand for timber " While on Page 13 the Plan states "The average annual sale volume between 1975 and 1984 was 134 mmbf The average annual cut, 1975 to 1984 was 106 mmbf ." The average annual cut is a reflection of demand and as displayed in the figures above, the Forest was more than capable of meeting local demand We support the harvest level identified in "The Forest Program for Oregon, 1980 "

Issue Two Social and Economic

No Comment

Issue Three Livestock Grazing

We do not support an increase in the Forest grazing program We find it difficult to justify continuation of the current grazing program considering the Standards and Guidelines in the proposed plan The Plan states that 28 percent of the range resource is in poor condition and 42 percent is in fair condition It also states "Utilization of riparian forage by livestock ranges up to an estimated 80 percent in places "

The Forest has mentioned three items that would decrease grazing in some areas

1) Forestwide Standards and Guidelines for Ecosystem Management state " Encourage recoverage or prevent deterioration where activities may be leading to poor condition, downward trend "

2) MA2 (Big Game Winter Range) allocates all fall green-up to big game

3) The two riparian MA's place tighter controls on grazing use

In order to counter this decrease the Forest proposes to increase utilization in other areas We feel that before an increase in livestock AUM's is implemented the Forest needs to demonstrate that the above items can be met with the current grazing program The key to accomplishing the above does not rest solely with range improvements, the driving factor should be stronger administration of Forest Grazing Permits The Forest has the direction and authority to accomplish all three items but has not elected to do so

We have a concern for the utilization level (actual use) of other specific vegetation types of the Forest, (i e dry meadow, wet meadow, scabland) We can not address this concern without allotment use data The concern lies with maintaining cover for nongame wildlife species and suitable habitat for state and federally listed plants

The first priority for range improvement funds (either RBF or PM) should be restoration of degraded sites We urge the Forest to use the key area concept to determine stocking rates and season of use

Issue Four Riparian

The Affected Environment section on Riparian and Fisheries Habitat identifies the importance of riparian zones to wildlife and recreation use The write-up states "The three most important riparian area factors .. are stream temperatures, streambank stability and large woody debris " While these are important factors for fish resources, habitat diversity and wildlife values need to be emphasized also

Region 6 MMR Direction for wildlife states a need for Forests to select a *management indicator species* for riparian habitats, if a species is not selected for riparian habitats the reasons must be stated We recommend the Forest designate the ruffed grouse as a management indicator species for riparian areas This species is a good indicator of habitat conditions and its population on the Forest has decreased due to degradation of riparian habitat

The Forest has selected steelhead, rainbow trout, and brook trout as management indicator species We recommend resident trout be used as an indicator species The Department policy for wild fish is "The protection and enhancement of wild stocks will be given first and highest consideration " The Forest recognition of wild fish as an indicator species would provide support to Department policy

The proposed plan addresses the management of 19,000 acres of riparian zones on Class I and II steams Table IV-2 on Page 30 lists streamside Management Units for Class I and II streams as having 36,046 acres What *is the basis for the apparent* discrepancy between these figures? The Forest goal for riparian area is to "Maintain or restore the inherent values of riparian ecosystems " This goal needs to apply to all areas meeting the definition of riparian areas, including all or part of an estimated 824 miles of Class III stream

In 1978 the Regional Forester signed "Managing Riparian Ecosystems (Zones) For Fish and Wildlife In Eastern Oregon and Eastern Washington This document established standards for optimum habitat conditions and established an inventory procedure for evaluating riparian *habitats* We strongly urge the Forest to follow the above document in managing the riparian areas The Forest has not displayed the riparian areas or their conditions

Page 23 of the proposed plan states that "The following acres are enhanced with the construction of the following structural improvements, 3,000 acres of fencing, 300 acres improved by woody debris additions, 300 acres of log weir construction, 50 acres of rock structures, and 50 acres of habitat from shrub plantings " The Riparian Improvement Schedule on Page A-4 states "Rehabilitation activities will include 1,175 improvement acre equivalents of fencing, seeding " Which set of improvement figures would be used if the proposed plan were implemented? The Forest needs to program and budget improvement projects for resident trout habitat that is separate from anadromous fish

We feel that Silver Creek should be allocated to a MA-14 prescription Silver Creek is a *major water source with important fish* values that needs additional protection

Issue Five Road Management

The Plan states that 4 1 miles of road exist for each square mile of developed area Since most of the road mileage is in the southern two-thirds of the Forest the road density there could be 5-7 miles/section High road densities in the MA-1 areas would reduce HEI to a fraction of optimum We have a concern for the adverse effects

open roads have on big game in the Ponderosa Pine type allocated to General Forest The proposed plan calls for maintaining 10 percent cover for big game in all winter ranges allocated MA-1 Thermal cover is one element of the habitat effectiveness equation The proposed plan further states "Evaluate road densities to determine their influence on habitat effectiveness for elk Initiate road closures where appropriate " What *does the term "where appropriate" mean?* Roads are tied to habitat effectiveness and should be quantified ODFW believes road closures are appropriate on all Forest land to keep road densities at or below 2 5 miles per section

We encourage more physical road closures on the Forest that are in addition to the green dot system These actions would benefit wildlife, reduce the potential for resource damage, and maintenance costs Roading was found to be the single greatest concern of elk hunters in ODFW elk workshops

Issue Six Habitat for Big Game

The Affected Environment Section on Wildlife does not adequately address the big game winter range requirements on the Forest It should include how many acres of winter range and transition range, as identified by big game use, are on the Forest, and why they are important It should also *include a land type break-down by percentage* for the winter ranges?

What percent of the 72,881 acres allocated to Big Game Winter Range is capable of meeting optimum habitat effectiveness (HEI)?

ODFW provided the Forest with maps of summer, transition and winter ranges Attached is a map that displays Alt "E" MA-2 allocations, transition winter range, and areas that we feel need to be allocated to MA-2 These areas are essential for wintering deer and elk Maintenance of the identified winter ranges at optimum HEI is necessary to assure deer and elk productivity

Forestwide Standards and Guideline for deer and elk address maintenance of viable populations *Explain why the habitat standard has been set* for viable population when the proposed plan identifies much higher population level? The standard must be related to the herd size and distribution to be managed for The fact that big game habitat is a public issue would justify *a higher standard than viable population*

Elk were chosen as an indicator for the big game issue because they have a greater sensitivity to man's activities than do deer The failure to use deer as an indicator has resulted in deficiencies in the analysis relating to seasonal deer habitat requirements The DEIS needs to address the cumulative effects of the alternatives on the deer herds To correct this deficiency we recommend mule deer be used as a management indicator species with elk We recommend a better distribution of MA-2 allocations across the Forest that meets the needs of both deer and elk

We do not know how the Forest converted HEI figures to population numbers The Forest needs to explain the process used to select the

winter range allocations in the preferred alternative More discussion relating to the above may answer our concerns

The 10 percent cover standard for the MA-1 areas will not provide enough thermal cover to maintain population levels The hiding cover element during hunting season would also be deficient

Issue Seven Roadless Recreation

We support the MA-9 roadless area allocations in Alternative F for Lookout Mountain, Silver Creek, Green Mountain, Rock Creek, and Cottonwood. We recommend that the standard for Timber Harvest be changed to read "No Harvest" The intent of MA-9 as stated in Emphasis, Description, and Desired condition statements is to maintain a nonmotorized roadless environment This intent would be lost if timber harvest or salvage were allowed

We support the allocations for Deschutes Canyon-Steelhead Falls in Alternatives E and G

Issue Eight Scenic Values

Under the proposed plan approximately 82 percent of the Forest would be subject to vegetative manipulation The Forest will need a strong monitoring program to ensure that soil resources and plant community diversity standards and goals are met

We support the Scenic Travel Corridor allocations in Alternative C The rationale for this support is tied to the old growth wildlife species Species with a strong preference for late successional habitats need travel corridor to move from one area to the next The Forest Scenic Travel Corridors and Riparian Management Areas will help meet that need Will the travel corridors provide other old growth habitat characteristics beside large old trees?

Issue Nine Old Growth

Region 6 MMR Direction for wildlife lists old growth species for the Ochoco as pileated woodpecker, marten, and northern 3-toed woodpecker The Forest has addressed the pileated woodpecker but not the marten or the northern 3-toed woodpecker The Department has data that show that the northern 3-toed woodpecker occurs on the Malheur National Forest not far from the Ochoco There is no reason to believe that this species does not occur on the Ochoco We do not have data that shows marten use on the Forest We recommend that the Forest include the 3-toed as an old growth indicator species for mature lodgepole pine stands We further recommend that the Forest select a MIS to replace the marten The size and dispersal distance of marten units was also intended to meet the needs of other old growth related species These species still need to be represented, whether or not marten actually exist on the Forest

The Forest has selected the common flicker as an indicator for old growth juniper Will the 40 acre old growth juniper stands be mapped? What measures will be taken to maintain the old growth juniper stands?

New data from westside pileated woodpecker study indicate that this species needs more than 300 acres for a core area The area that was studied on the Starkey Experimental Forest had a higher snag density than that on the Ochoco With these two points in mind we recommend that the Ochoco allocate 460 acres to the pileated woodpecker core area for this planning period

How does the distribution of the old growth prescription (MA-4) fit with the Malheur National Forest?

The proposed plan does not contain sufficient information to evaluate the old growth situation In order to do so the maps should indicate which areas are suitable or capable, and the plant communities they represent

How will the Forest delineate and manage the 300 acre foraging area for the pileated woodpecker? We recommend that the minimum snag size in the foraging area be 15 inches Research has found this snag size to be necessary for a prey base of carpenter ants

It is important that a number of replacement stands be designated in the plan The numbers should be equal to the expected loss for the next 150 years

As 40 percent of the MA-4 areas are capable an equivalent amount of suitable habitat should be retained, on a drainage by drainage basis, until the capable areas reach a suitable condition Replacement stands should be managed for 100 percent potential population levels of primary cavity excavators

Issue Ten Firewood

Our comments on firewood will be addressed under Forestwide and MA Standards and Guidelines for dead and down woody material

Issue Eleven Snags

Region 6 MMR Direction for wildlife states "Each Forest will determine their management indicator species for this MMR", (Primary Cavity Excavators) The Forest has not selected a MIS for snags ODFW recommends that the Forest use the hairy woodpecker as a MIS for the ponderosa pine, mixed conifer, white fir, lodgepole, pine, and subalpine fir communities We also recommend the downy woodpecker as a MIS for the riparian communities

With a designated MIS for snags the Forest can establish specific criteria for meeting snag distribution on the Forest In-unit snags should be left as well as clumps to provide for primary as well as secondary cavity users

Region 6 established MMR's for wildlife to meet an NFMA requirement The Forest was directed to use MMR's as a constraint for benchmark runs and alternatives that are commodity oriented The level at which the Forest operates above these constraints is established by standards and guidelines We want to emphasize that managing for 100 percent of potential population of primary cavity excavators does not mean managing for 100 percent snag retention With this understanding we will make recommendations for snags in the Standards and Guidelines Review

Issue Twelve Winter Recreation

We recommend that the Forest control use of winter recreation in areas of wintering big game and bald eagle wintering areas

Response to Standards and Guidelines

For the purpose of the DEIS and the Proposed Plan the Forest has defined guideline and standard as

Guideline - An indication or outline of policy or conduct that is not a mandatory requirement (as opposed to standard, which is mandatory)

Standard - Performance criteria indicating acceptable norms or specifications that actions must meet A principle requiring a specific level of attainment, a rule to measure against

1 Range: Under Forestwide S & G's no standards have been set except for use on crested wheatgrass Most of the statements appear to be goals We recommend that specific utilization standards be applied to decreaser species A generic approach to utilization does not protect decreaser species, and does not protect sites with moist soils Under Forage Utilization #2 the word "integrity" is subjective, the Forest needs a standard to measure against to determine protection needs for a riparian zone In #3 state a distance for salt location from water -- establish a standard

Under Range Improvements we recommend establishing standards for protection of water sources and overflow areas We recommend the following as additional standards and guidelines

4 "Protect newly developed water sources with a fenced exclosure The exclosure will have no gates If a stock tank has an overflow pipe, the overflow should be piped away from the tank Protect the overflow site as stated above for developed water sources" (Sanitary water sources are a defense against disease and parasite transmission between wild and domestic animals and man)

5 "Each Ranger District will establish a priority list for protecting existing water sources to the same standard established for new water developments The priority list will allow for the protection of all existing water developments by September 30, 1989"

6 The use of prescribed fire as a method to improve forage quality should be designed to protect important browse stands such as mountain mahogany thickets Prescribe burns should be coordinated with wildlife biologists

We support the MA-2 standard to reserve all fall green-up for big game The fall green-up is important on transition ranges and winter ranges not allocated to MA-2 Fall green-up should be maintained on all areas that were delineated as transition or winter range by ODFW

2 Residue Management In #1 establish a Forest standard for what must be left ODFW recommends two logs (>12" by 20') per acre and/or two brush piles (>10' dia) per acre except in riparian areas In riparian areas allow for natural accumulation of dead and down woody material Logs must be uncharred

3 **Riparian:** Riparian and SMU and Fish Habitat #2 include "wildlife habitat protection"

Please explain what is meant by "is significant degradation of water quality"? There is a need to establish the standard for water quality that addresses sediment In riparian areas the standard for ground cover should be 80+ percent

4 **Soils**· MA-13 and 14 have a standard to "Maintain 90 percent of the area in an acceptable productive condition" How will the Forest determine "acceptable productive condition"?

We have a concern for soil compaction and displacement on the Forest What is the background level of soil loss on the Forest? P 117 of DEIS the Forest indicates 102,000 acres have compacted soils and that figure will increase to 127,000 acres in the first decade What will the long term effect be on productivity from these compacted acres?

5 **Fragile Areas:** When considering standards for fragile areas, (scablands, bogs, springs, we meadows, dry meadows, etc.) two elements must be addressed First, standards to protect the site from adverse effects of management activities, second, standards that protect the values of the edge habitat around the fragile area A standard that allows for over-story removal of a portion of the edge while maintaining a screen of understory vegetation would meet the intent of number 2 Protection of fragile areas from adverse grazing impacts may require fencing

Dead and down woody material in the edges of fragile areas and natural openings should be maintained for 100 percent potential population levels

The Forest should address state and federally listed plants under this category and the special management consideration for each species or group of species

6 **Timber Management** ODFW supports the Forestwide S & G described under Silviculture We recommend the following be added to #9 (1st para) "A screen of understory vegetation will be left along the edge of natural openings and along roads to reduce the sight distance

Under MA-2 and MA-3 the standards for reforestation should be driven by big game cover objectives not an annual or decade timber target Base a need to plant trees on a need to increase or replace cover for big game

MA-2 and MA-3 precommercial thin-stocking rate should be based on cover needs for big game not Managed Yield Tables

The MA-7 Harvest standards would all meet partial retention of middleground except the rotation age Activities under partial retention must remain subordinate to the characteristic landscape A rotation age of 90 to 100 years will over time change the character of the landscape by removing large mature and old growth trees The rotation age should be the same as MA-6

MA-10 As stated in our Issue Response the Department does not support salvage harvest in these areas

7 **Transportation System** Traffic Management #2 recommend adding the following paragraph

"Road closures for big game will be needed to maintain higher habitat effectiveness and assure hunting quality If habitat effectiveness drops below HEI = 35 roads will be closed"

Entry to new roads should be designed for easy and effective closure

8 **Wildlife**· As stated in the Issue response we feel the Forest should establish the northern 3-toed woodpecker, downy and hairy woodpecker as MIS and should select a replacement species for the marten

We also recommend the ruffed grouse and resident trout as MIS for riparian areas

Primary Cavity Excavators Recommend dropping #1 This is confusing and the specific levels are identified in the prescriptions

Recommend a minimum snag size of 15" for pileated woodpecker forage areas

#2 The size of the clumps should reflect the needs of indicator species

A The area of evaluation should be on a subwatershed basis

B Hard and soft snags must be left in harvest units

C Clumping alone will not meet cavity user needs

<u>Rocky Mtn Elk and Mule Deer</u> #1 and #3 should set a level commensurate with desired herd numbers not viable population numbers Maintaining 10 percent cover on one-half of the Forest will not maintain desired herd levels

#2 How will Forest protect sites?

<u>Threatened, Endangered and Sensitive Species</u> We recommend that a bald eagle roost area be established at the Grasslands within 1/4 mile of Lake Billy Chinook We recommend that the Forest use criteria in "Management of Wintering Bald Eagles" (1978, USFWS) to protect roost sites

Species Associated with Dead and Downed Logs See Pesidue Management

Species Associated with Various Plant Communities... The statement "Diversity is to be provided through time" is a goal and a legal requirement How does the Forest propose to accomplish this task?

Snag Management As stated in the Issue response the snag levels by MA could be higher We recommend the following

MA	Percent Potential Pop	Snags/100 Acres	
1	60	108-118a	1-1 2 snags per acre
2	100	180-300	2-3 snags per acre
3	100	'' ''	
4	--b	--	
5	100	180-300	
6	100	'' ''	
7	100	'' ''	
8	--	--	
9	--	--	
10	100	180-300	
11	100	'' ''	
12	100	'' ''	
13	100	'' ''	
14	100	'' ''	

[a] Varies by plant community
[b] Forest management would not affect level of snags

Snags must be uncharred The recommended height and numbers by D B H are identified in Thomas (1979)

Raptors The plan should reference and support the guidelines for cliff and rimrock habitats in "Wildlife Management in Managed Forests"

Monitoring Plan

Wildlife

Old Growth -
Under "Methods" 5% per year is not a method, it's a frequency At 5% per year it would take 20 years to verify that the MA-4 areas are in place This time period is too long for a resource that is being managed at a low level We recommend 20% per year is verified and utilize remote sensing as a method to inventory and monitor

Snags -
Recommend moving snag information on Page 103 under Fish and Wildlife, Range to Page 102 under Snags

Anadromous Fish -
Recommend monitoring for resident fish be included

Elk Habitat -
Recommend establishing on HEI Management Objective for Variability Threshold

Soils -
Place stronger emphasis on project level monitoring for compaction and displacement

Recommend that 5 year monitoring reports be sent to coordinating agencies

Recommend that the monitoring plan address Dead and Down Wood Material

General Comments

1 DEIS Affected Environment

Vegetation
The Forest lists 12 plant species from "Rare, Threatened, and Endangered Plants of Oregon", March 1985 How will these species and their habitats be protected?

2 ODFW supports the RNA allocations in Alternative E

3 ODFW encourages stricter enforcement of ORV regulations

4 Recommend that the Delintment Lake improvement project be added to the fish and wildlife capital investment plan

5 Appendix A5
Timber Sales - Are the timber sales scheduled in MA-2, MA-3, MA-13 and MA-14 designed to meet specific wildlife and riparian objectives?

6 Chapter IV of Proposed Plan

P 25 Riparian "Maintain or restore inherent values " Only MA-14 would meet this goal Does the Forest propose to increase the MA-14 allocation in the next planning process to work toward this goal? Due to the poor condition of some riparian areas recovery will be a slow process

P 28 Desired future condition "Vegetation composition will change overtime giving way to weedy, adventive, and annual species " We recommend that the Forest delete the above paragraph This condition is not desirable and is not consistent with Forestwide standards and Guidelines for Ecosystems Management#12 " Encourage recovery or prevent deterioration "

P 96 of the Proposed Plan
What is the rationale for the difference of 10° in the temperatuie standards for the Deschutes and John Day rivers?

In an effort to have better data and species inventories for the next planning period we recommend that the Forest identify the needs in the Statewide Comprehensive Fish and Wildlife Plan The Department will cooperate when possible to help gather this information

The following comments list how well the proposed plan accommodates the Fish and Wildlife Habitat Protection Criteria For Forest Lands (March 1985, Reformatted and Revised September 1986) - copy attached -

Old Growth

1 Forest will maintain only three percent in old growth ODFW criteria is 5-15%
2. Does not include northern 3-toed woodpecker as indicated in R-6 MMRs
3 The Forest is dedicating old growth stands, plan does comply
4 No fuelwood cutting, may be roaded in some areas

Snags·

1 Inventory by TRI compartment or watershed needs to be completed
2 Will be met, ODFW recommends core area of 460 acres
3 Not met, Forest MA snag levels vary from 40% to 100%
4 In S & G's
5 Plan does comply

Dead and Down

1 In plan, recommend as standard under residue
2 Same as #1
3 Plan does not comply

Hardwoods and Minor Conifer Species

1 Would be met under diversity requirement
2 N/A
3 Only portion of winter range considered, most of transition areas and winter ranges not considered

Riparian

1 No map to show location and condition
2 All addressed but no sediment standard
3 Will be met on 19,000 acres of Class I and II streams
4 is planned for part of degraded area
5 Yes for a portion of area
6 Yes

Meadows, Freshwater Wetlands, Natural Openings

1 Not sure
2 No, only 66% ensured - made recommendation for remainder
3 No, 2/3 of area will have trees but may not be in natural condition
4 The Direction is there
5 Does not comply

Cliffs, Rim rock, Caves, and Talus

1 Recommend that Forest use standards in (Thomas 1979)

Aquatic Habitats

1 Yes on a limited basis
2 No
3 Yes
4 For anadromous fish only, recommend monitoring of resident trout

In-stream Habitat

1 Yes, but not for all acres

Water Quality

1 Temperature ok (but not for all acres), sediment--no standard
2 Yes

Water Quantity

1 Yes, but not for all acres
2 Yes

Elk and Deer Habitat

1 Yes, on 24% of Forest, ODFW management objectives will not be met on MA-1 allocations
2 N/A
3 No
4 No discussion of current condition
5 Only on portion of Forest and not by geographic area
6 Not in total
7 a Not complete
b Not complete
c Yes
8 Yes
9 No

Species of Concern

1 Bald eagle
a Yes
b Yes
c Yes

2 Peregrine falcon -- N/A

3 Spotted Owl -- N/A

Road Management

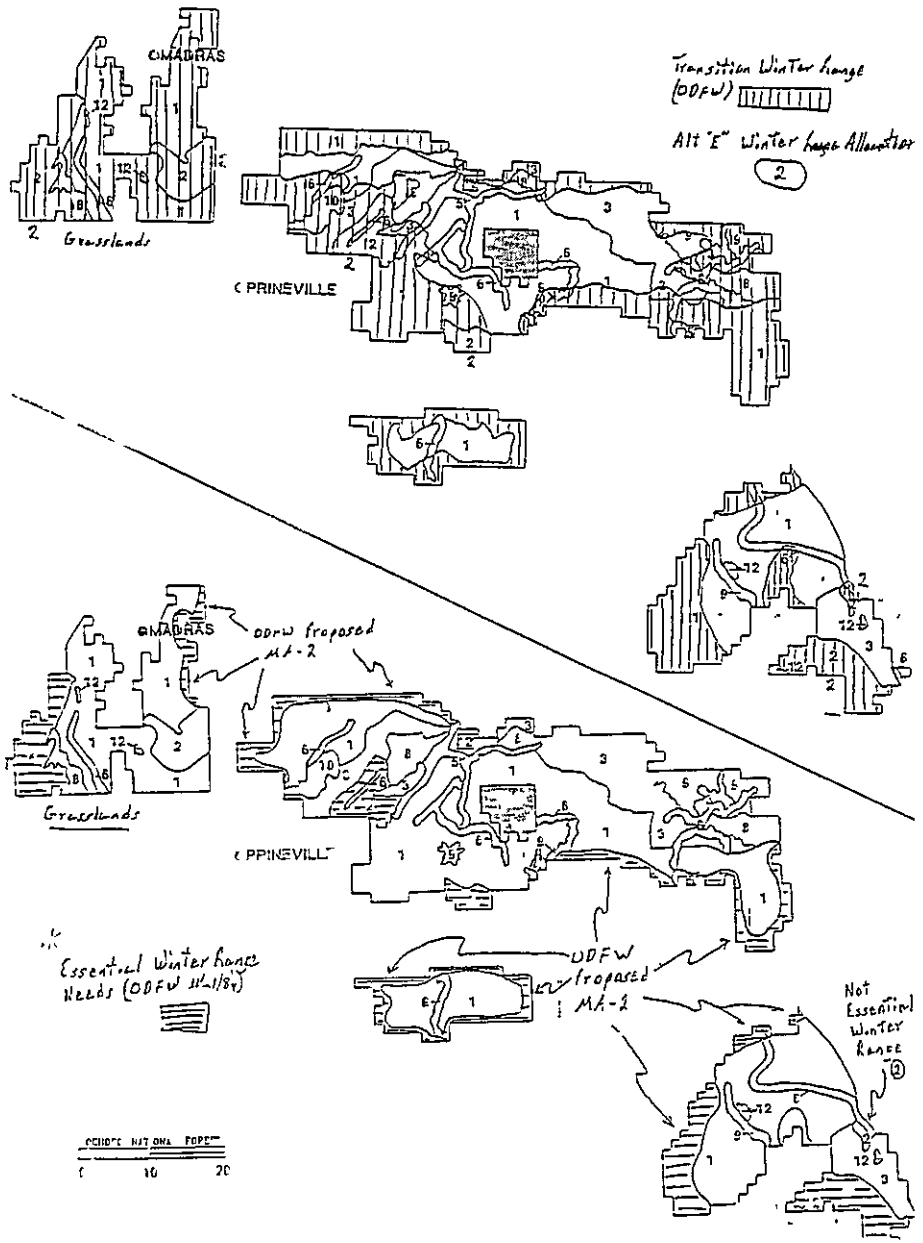
1 Only in part
2 No
3 Forest will attempt to meet these
4 Some are

Grazing

1 No
2 No

L4-11

Ochoco National Forest Plan Review (ODFW 11/21/86)



Department of Transportation

PARKS AND RECREATION DIVISION

525 TRADE STREET SE, SALEM OREGON 97310

VICTOR ATIYEH GOVERNOR

October 30, 1986

Jim Brown
State Forester
Oregon Department of Forestry
2600 State Street
Salem, OR, 97310

Dear Jim:

We have reviewed the draft of the Ochoco National Forest Plan with an emphasis on its impact on the Division's programs - parks, scenic waterways, trails, and to recreation in general. We have relied on the 1983 Statewide Comprehensive Outdoor Recreation Plan (SCORP) endorsed by Governor Atiyeh and the 1983-89 Oregon State Parks System Plan adopted by the Oregon Transportation Commission

Our review paid special attention to the plan's provision for recreational diversity (as shown by the Recreation Opportunity Spectrum).

The Ochoco plays an important role in providing outdoor recreation opportunities in Oregon. It provides high quality hunting and river dependent opportunities as well as winter nordic activities. It also will become an important trail connector between the Pacific Crest and Desert Trail systems Our specific areas of concern are:

1. Predictions for future recreation use are based on state population growth. Much recreation grows faster than population. Predictions of future use would be better grounded based on historic trends in the Ochoco

2. We endorse expansion of the trail system, especially the development of the East-West intertie which will join the Pacific Crest Trail with the Desert Trail

3. We agree with management of the Deschutes Canyon-Steelhead Falls area to retain wilderness values until designated or released by Congress.

4. We also agree with maintenance of scenic and recreational values on those described portions of the Crooked, North Fork Crooked and the Deschutes River until Congressional decision is made. Oregon State Parks has recently completed a state scenic waterway study of the Deschutes from Lake Billy Chinook upstream.

5 Major reductions are being made in those lands providing semi-primitive motorized and non-motorized recreational opportunities, to the extent that demand has or soon will outstrip supply. The reduction of these opportunities pose a loss of recreational diversity as delineated by the recreational Opportunity Spectrum. We suggest that this issue be reevaluated in the Ochoco.

6. Methods employed to estimate the economic values of recreation are flawed and result in a serious undervaluation of recreation. This undervaluation becomes particularly of concern in those areas of the forest where irreplaceable recreational opportunities may be traded for low value timber resources.

We are pleased to offer these comments. If you have any questions, please contact Don Eixenberger at 378-6597.

Sincerely,

Alan J. Cook, Manager
Planning and Grants

AJC:jn
1692D

STATE OF OREGON
Parks and Recreation Division

INTEROFFICE MEMO
378-6597

TO Files

DATE October 30, 1986

FROM Don Eixenberger
Research Analyst

SUBJECT Review of Ochoco National Forest Plan, 1986

The U.S Forest Service (U.S.F S) plays a major role in the provision of recreation in the State of Oregon It is an indispensible element in maintaining a diverse quality of recreational opportunity which will gain even greater importance as the state's population grows and as out-of-state tourism plays an even more crucial role in the state's economy. For example, federally administered lands provide over 30% of the state's campsites and picnic tables, 50% of its hiking and bridle trails and 60% of its ORV areas. Thus, while the plan states that the U.S.F.S. provides 7 5% of outdoor recreation nationally, in Oregon, it is likely 3 to 4 times that amount if not more.

The U.S.F.S is also the near sole provider of certain types of recreation in the state Much river recreation, snow activities and primitive and semi-primitive recreational opportunity are greatly dependent on public lands managed by the U.S.F.S. Forests such as the Ochoco form a mosaic of recreational richness and diversity that are irreplaceable.

Recreation

Overall, the plan adequately describes the general recreational issues in the Ochoco National Forest We have concerns, however, in using state population projections in estimating future recreational demand

Forests have varying degrees of recreational attractiveness; activities within a forest can have differing rates of demand Some of these may follow population growth; others may greatly exceed it Basing demand on population risks inappropriate planning for future use. Projections based on historical growth rates for specific activities would likely be more accurate

Dispersed Recreation

The Ochoco has no primitive recreation opportunities, excluding wilderness, its semi-primitive motorized and non-motorized opportunities are limited Currently, there are some 59,000 acres of land providing such experiences. The preferred alternative (E departure) would reduce this to about 32,000 acres or 3 8% of some 843,000 acres of forested land Yet demand for semi-primitive opportunities according to U.S F.S. data is increasing in the forest

Ample supplies of developed and roaded natural opportunities exist through all years of the planning horizon. Yet demand for semi-primitive motorized presently exceeds supply by over 100%; demand for semi-primitive non-motorized will exceed supply by the year 2005. The problem would not be so crucial if this were an isolated case. But the diminishment of both primitive and semi-primitive opportunities is also projected in other Forests. The reduction of these opportunities pose a loss of recreational diversity as delineated by the Recreational Opportunity Spectrum.

The U.S.F.S. is nearly the sole provider of these opportunities. We suggest that this issue be reevaluated in the Ochoco Perhaps a regional analysis should be made to examine the status of the supply and demand for primitive and semi-primitive opportunities and the cumulative effects the current round of planning will have on them.

Trails

We endorse the expansion of the trail system, especially the development of the East-West intertie which will join the Pacific Crest Trail with the Desert Trail

Wilderness

We agree with management of the Deschutes Canyon-Steelhead Falls area to retain wilderness values until designated or released by Congress.

Scenic Rivers

We agree with maintenance of scenic and recreational values on those described portions of the Crooked, North Fork Crooked and the Deschutes River until Congressional decision is made. Oregon State Parks has recently completed a state scenic waterway study of the Deschutes from Lake Billy Chinook upstream. A copy of this study is available upon request.

Developed Recreation

The plan proposes four new developed sites in the Ochoco. According to the State Comprehensive Recreation Plan, the counties influenced by the Ochoco have large surpluses of campsites through the forseeable future. However, as described, several campsites in the forest are at peak use and development of new sites is needed and justified.

Economic Concerns

Methodology

Each of the 11 management alternatives has a calculated Public Net Value (PNV) expressed in millions of dollars. This is the difference between the discounted value (benefits) of all outputs to which the monetary values or established market prices are assigned and the total discounted costs of managing the planning area As such, PNV is a estimate of the total monetary benefits gained through the various mixes of resource tradeoffs across the alternatives

In formulating these values, a 1 percent per year real price trend for stumpage was used for harvest scheduling analyses These were applied for the first fifty years and a 0 percent price trend was used for the remaining 100 years of the planning horizon. A 0 percent real price trend for all other resources was used during the development of the benchmarks and the alternatives In other words, their future nominal values will change at rates equal to inflation According to the plan then, recreational resources will not increase in real value; their contribution to PNV in real dollars remain static throughout the 50 year planning period.

In addition, the contribution of recreational values to PNV were reduced 37.5% for use in comparing resource allocation choices. This was based in part on dissatisfaction with travel cost methods of determining recreational activity values. To arrive at this 37.5% reduction, the following method was used·

First it was estimated that nationally, a 5 percent increase in price would result in a 1 percent decrease in quantity of outdoor recreation demanded for a price elasticity of .2

$$P\ E. = \frac{\text{quantity demand}}{\text{price demanded}}$$

It was also estimated that in 1982, the Forest Service provided 7 5% of all outdoor recreation and that as a consequence, there will be a 5 percent decrease in price for each percent of the 7.5 percent Forest Market Share or a total decrease of 37.5 percent for clearing the market In other words, the increase in supply created by the Forest Service creates a 37.5% decrease in the price of outdoor recreation For example, the initial value of $24 for a day of resident trout fishing was reduced to $15.

Discussion

The methodology used to estimate the current and future value recreational resources merits careful consideration if responsible planning of our shrinking resource base is to occur.

1. Assigning a 0 percent real price trend for all non-timber resources, including recreation flies in the face of economic reality. The demand for much, if not most, outdoor recreation is growing at an accelerated pace.

   Skiing and river-dependent recreation are two prime examples of this growth. The supply available for many of these activities is sluggish or even static. It is a well established fact that as demand grows faster than supply, real price increases.

   The assumption of a 0 percent real price trend gravely undervalues the contribution of outdoor recreation to the PNV of all the alternatives.

2. Adjusting recreational activity values 37 5 percent downward is clearly erroneous.

   The values for many of these activities were generated using Forest Service sites and when Forest Service contributions to the overall supply were present. It is erroneous to assume that the Forest Service land is an addition to quantity which lowers these values when that land was already a part of the total quantity when the values were estimated.

3 A nationwide demand elasticity is likely misrepresentative of the demand elasticity for specific recreation activities and may not be relevant to Oregon and the Ochoco National Forest

4 It is faulty to assume that because nationally the Forest Service provides 7.5% of all outdoor recreation, the same holds true for the Ochoco Forest. Also many of the opportunities offered by the forest have no reasonable substitutes. Mountain climbing, wilderness travel, skiing are examples of this

5. There is no reason to believe that Travel Cost methodology consistently over estimates trip length, and therefore no reason to adjust those values downward as a result of this contention *

These methods, the 0 percent real growth rate assumption and the further 37.5 percent devaluation of recreation activity values, are erroneous.

Their net effect is to seriously confound and underestimate the value of recreational resources and their contribution to Present Net Value Consideration of resource allocations in the Ochoco Forest will be distorted unless appropriate recreation value estimates are refigured throughout the alternatives.

*Corroboration of these points are provided in the accompanying comments by Rebecca L. Johnson, Assistant Professor, Resource Economist, Department of Resource Recreation Management, Oregon State University, Corvallis While these comments were made pertinent to the Deschutes NF; the same methodology was used in the Ochoco and is relevant to it.

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Enclosure
Comments on the Recreation Values for the
Deschutes National Forest Plan

In summarizing the rationale for adjusting the initial values of the Resource Evaluation Group, the plan states that TCM values need to be adjusted to be comparable with marginal values of other forest outputs (p 193) The nationwide demand elasticity of .2 is used to show that if the Forest Service quantity of outdoor recreation in the nation by 7 5% (their current share of quantity), price should decrease by 37 5%. There are several problems with this logic:

-- The prices which are being adjusted downward were estimated when the Forest Service land was a part of the total quantity. In fact, many of the studies which were used to generate the recreation values were done for Forest Service sites Studies that were done on non-Forest Service sites would frequently have had Forest Service sites as substitutes, and regional models would have included these Forest Service substitutes directly in the estimation It is erroneous to assume that the Forest Service land is an addition to quantity which will lower these values which were estimated at a time when Forest Service land was already a part of the total quantity

-- A nationwide demand elasticity for outdoor recreation may be a poor representation of the elasticity for specific recreation activities. Similarly, the percentage of the total quantity of outdoor recreation in the U S that the Forest Service land represents may be a poor representation of the percentage that is relevant in the Deschutes National Forest If adjustments are to be done, an attempt should be made to use regional or Forest-related factors for adjustment whenever possible

Other reasons stated for adjusting the values downward were related to problems with the TCM, including an assertion that TCM studies typically are done for higher quality sites, substitutes are not accounted for, and trip length is not accurately measured While any of these may be true for a particular study, several points should be made·

-- Values for some activities were based on CVM studies instead of TCM studies Adjusting these values downward for problems with the TCM is clearly erroneous

-- Not all of the studies used single-site TCM models, and therefore an adjustment for substitutes may or may not be necessary There is clearly no single factor to adjust all of the values by to account for exclusion of substitutes - it would vary by site

-- Aside from the argument of whether or not TCM studies accurately measure trip length, there is no reason to believe that trip length is consistently over-estimated, and therefore no reason to adjust these values downward as a result of this contention

If the planners for the Deschutes National Forest are not satisfied with the activity values estimated by the Resource Evaluation Group, they should make an attempt to find recreation valuation studies which have been done in the Pacific Northwest region for specific activities which are provided on their forest. It appears that planners want recreation values to be comparable to other forest resource values, and therefore the same effort should be made to find values which reflect as accurately as possible the conditions that exist on the Deschutes National Forest.

DE:jn
1661D

VICTOR ATIYEH
GOVERNOR

Water Resources Department

3850 PORTLAND ROAD NE SALEM OREGON 97310 PHONE 378-3671

November 12, 1986

James E. Brown, State Forester
Department of Forestry
2600 State Street
Salem, OR 97310

ATTN: Dave Stere - Ochoco National Forest Comments

Dear Mr. Brown,

We have reviewed the Ochoco National Forest and Crooked River National Grassland Proposed Land and Resource Plan. The Water Resources Department has no preference for any plan finally selected. However, we recommend that the goal of protecting water resources originating on forest lands be included in any management program implemented

As identified in Table IV-6, The Plan, water yields could diminish by a few percent per decade for the next three decades Data is not available to determine if this is the result of projected precipitation patterns or management programs. The Department would encourage implementation of a monitoring program to measure the effects of various forest management techniques on runoff. A comprehensive monitoring program may provide the necessary data for additional evaluation on the effects of various management techniques on runoff

Specific comments - DEIS

The DEIS should acknowledge state water resource policies and the *relationship to the various alternatives presented on pages 74* and 175.

Proposed Plan

Page 13 The last sentence in the water section should be clarified as to specific meaning. Does the sentence mean needs will outpace water resources or water will still be sufficient to meet demands?

Page 27 This section should put more emphasis on improvement of the watersheds in the poor to fair condition

A-1 Water rights will be required for the water development projects identified in the report.

I-11 Potential developers should be aware of state policies affecting hydroelectric projects.

Enclosed is the basin program for the area. Thank you for the opportunity to review the report.

Sincerely,

Bill

WILLIAM H. YOUNG
Director

WHY·jt
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BEFORE THE WATER RESOURCES COMMISSION

OF THE

STATE OF OREGON

In the matter of formulating an integrated, coordinated program for the use and control of the water resources of the John Day River Basin	)))))	John Day River Basin December 2, 1985*

WHEREAS the State Water Resources Board under the authority of ORS 536.300 has undertaken a study of the John Day River Basin as delineated on State Water Resources Board Map, File 6.70146;

WHEREAS results of this study have been published in the State Water Resources Board Report, John Day River Basin and the Water Resources Department has conducted further studies pertaining to the development of water resources of the basin;

WHEREAS in these studies consideration was given to means and methods of augmenting, conserving and classifying such water resources, existing and contemplated needs and uses of water for domestic, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses, and for pollution abatement as well as other related subjects including drainage, reclamation, and flood control; and

WHEREAS the Water Resources Commission under the authority of ORS 536.300 through ORS 536.340 may classify or establish minimum perennial streamflows on the water resources of the John Day Basin;

WHEREAS as a result of said studies the following findings and conclusions have been reached by this Commission:

1. The total basin yield is adequate on an average-year basis to supply all existing and presently contemplated needs and uses of water.

2. There are areas where the yield is not adequate to supply existing needs during a critical year.

3. Flows are not sufficient during low-flow months to meet existing or future instream or out-of-stream demands.

4 Simultaneous use of a major portion of the existing consumptive water rights results in flows at or near the zero level in many streams during the summer and early fall months.

* Modifies John Day River Basin programs dated April 3, 1964, and April 4, 1981,

5. Flows at or near the zero level also occur under existing conditions on many streams having little water under appropriation.

6. Augmentation of the water supply in periods of need can come through more efficient use of presently appropriated water.

7. There are many physically feasible storage sites.

8. Available data indicate that the ground water resource is limited.

9. Ground water represents an important source of water, primarily in meeting existing domestic, livestock, and municipal needs.

10. There are substantial quantities of unappropriated water.

11. Over 1,400,000 acre-feet of the waters of the John Day River and its tributaries were withdrawn in 1915 by the State Engineer for out-of-basin diversion for irrigation, power and domestic purposes. This withdrawal amounts to more than the average annual discharge of the John Day River at McDonald Ferry.

12. No water has been applied to beneficial use under the aforementioned withdrawal.

13. Utilization of this withdrawal and its priority will preclude maximum beneficial use of the waters of John Day River within the basin.

14. More than 25 percent of the land holding water rights is no longer irrigated. More than 75 percent of the water appropriated for mining and power uses is no longer utilized for these purposes.

'5. There is need to investigate modification or rescission of the aforementioned withdrawals and unused rights.

6. There is need to insure water for domestic, livestock, municipal, and wildlife uses which, while small, are of great importance.

7. There is need to develop stock water facilities for better range utilization.

8. Irrigation is and will continue to be the major consumptive use of water.

9. Irrigation development is restricted by the limited acreage of bottom land and the unfavorable location of other arable land.

). Most irrigated lands do not receive an adequate supply of water throughout the irrigation season in an average water year and experience severe shortages in a critically low water year.

Storage would be necessary to provide an adequate water supply for irrigated and irrigable lands.

22. The hydroelectric power potential of the basin is limited.

23. Existing stream regimen and water use reduce the desirability of hydroelectric power development in the basin.

24. Present industrial use of water is small and is not expected to increase materially.

25. There is potential for increased mining activity.

26. Present mining use of water is small and is not expected to increase materially.

27. Water-based recreation is limited by low seasonal streamflows and the small number of lakes and reservoirs.

28. The natural lakes have significant recreational value.

29. The main stem of the John Day River from Service Creek Bridge (river mile 157) to Tumwater Falls (river mile 10) is designated as a State Scenic Waterway.

30. Aquatic life, including fish life, is and will continue to be the major nonconsumptive use of water.

31. A major conflict exists between irrigation and fish life use of water.

32. There is potential for enhancement of fish life and recreation.

33. Storage or other watershed management measures would be required to attain flows for enhancement of fish life and recreation.

34. Flows recommended by fisheries agencies are substantially higher at many locations than the flow levels that exist during an average water year.

35. Maintenance of minimum perennial streamflows would benefit fish life, wildlife and recreation.

36. Thirteen minimum perennial streamflows included in the Senate Bill 225 (1983) application are located in the John Day River Basin.

37. The proposed minimum streamflows would protect flows during parts of the year for important populations of wild anadromous and resident fish in the mainstem John Day River and its North, Middle, and South Forks; Beech, Canyon, Cottonwood, Rock and Bridge Creeks tributary to the mainstem John Day River, Clear Creek tributary to Middle Fork John Day River, and Granite Creek tributary to the North Fork John Day River.

38. Municipal use for Mitchell, Dayville, and Mt. Vernon is of greater importance than support of fish life and should be exempted from minimum perennial streamflows

39. Existing industrial use is more important than fish life use in the river reach from gage 14038530 to the North Fork.

40. Exemption of industrial applications filed before December 2, 1986 would allow development of alternative sources for existing and future industrial demands

41. Criteria for the determination of desirable base flows commensurate with all beneficial uses of water have not been developed.

42. Agriculture is a more important use than increasing the existing minimum flows on the North Fork John Day.

43. Pollution of surface and ground water is local, intermittent in occurrence, and is not a serious basinwide problem

44 Utilization of flows to minimize pollution should only be permitted if it does not limit or conflict with the multiple-purpose objectives for water use in the basin.

45. Flooding and streambank erosion are serious local problems in some areas

46 Erosion of cropland and rangeland is a major problem and often results in siltation of streams.

47. Major drainage problems occur on irrigated lands.

48. Because of physical and economic factors, classification of certain waters for limited-purpose use would be in the public interest.

NOW THEREFORE BE IT RESOLVED that this Commission hereby adopts the following program in accordance with the provisions of ORS 536 300(2) pertaining to the water resources of the John Day River Basin

A. The maximum economic development of this state, the attainment of the highest and best use of the waters of the John Day River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, pollution abatement, wildlife and fish life uses The waters of the John Day River Basin are hereby so classified with the following exceptions:

1. The maximum economic development of this state, the attainment of the highest and best use of the waters of the natural lakes of the John Day River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, irrigation of lawn or

noncommercial garden not to exceed one-half acre in area, power development not to exceed 7-1/2 theoretical horsepower, recreation, wildlife and fish life uses, and the waters of the natural lakes of the John Day River Basin are hereby so classified.

2. The maximum economic development of this state, the attainment of the highest and best use of the waters of the John Day River from Service Creek Bridge (river mile 157) to Tumwater Falls (river mile 10), and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, industrial, mining, recreation, wildlife and fish life uses;

B. For the purpose of maintaining a minimum perennial streamflow sufficient to support aquatic life, no appropriations of water except for domestic or livestock uses shall be made or granted by any state agency or public corporation of the state for the waters listed below and as shown in Table 1:

1. The Middle Fork John Day River above its mouth or of its tributaries for flows of the Middle Fork John Day River at USGS Gage 14-0440 at Ritter (SW 1/4 NW 1/4 Section 8, Township 8 South, Range 30 East) below 10 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage.

2. The North Fork John Day River above former USGS Gage 14-0415 near Dale (SE 1/4 SE 1/4 Section 35, Township 6 South, Range 31 East) or of its tributaries above said gage for flows of the North Fork John Day River below 35 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage.

3. The North Fork John Day River above its mouth or of its tributaries for flows of the North Fork John Day River at USGS Gage 14-0460 at Monument (SE 1/4 Section 2, Township 9 South, Range 27 East) below 55 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage.

4. The John Day River above USGS 14-0465 at Service Creek (N 1/2 Section 18, Township 9 South, Range 23 East) or of its tributaries above said gage for flows of the John Day River below 30 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage.

5. The John Day River above its mouth or of its tributaries for flows of the John Day River at USGS Gage 14-0480 at McDonald Ferry (NW 1/4 Section 11, Township 1 North, Range 19 East) below 20 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage

C. To support aquatic life and minimize pollution, in accordance with Section 3, Chapter 796, Oregon Laws, 1983, no appropriation of water shall be made or granted by any state agency or public corporation of the state for waters of the streams and tributaries in Table 1 when the flows are below the levels specified. This limitation shall not apply to:

a. Water legally stored or released from storage.
b. Domestic and livestock uses.
c. Municipal uses on Bridge Creek, South Fork John Day River, and the John Day River from USGS gage 14038530 to the North Fork.
d. Industrial use rights and industrial use under permits with priority dates before December 2, 1986 on the John Day River from USGS gage 14038530 to the North Fork.

Attainment of the specified flow levels during some portion of the year will require use of stored water or other measures to augment flows.

D. Applications for the use of the waters of the John Day River Basin shall not be accepted by any state agency for any other use and the granting of applications for such other uses is declared to be prejudicial to the public interest and the granting of applications for such other uses would be contrary to the integrated and coordinated program for the use and control of the water resources of the state.

E. Rights to use of water for industrial or mining purposes granted by any state agency shall be issued only on condition that any effluents or return flows from such uses shall not interfere with other beneficial uses of water.

F. Structures or works for the utilization of the waters in accordance with the aforementioned classifications are also declared to be prejudicial to the public interest unless planned, constructed and operated in conformity with the applicable provisions of ORS 536.310 and any such structures or works are further declared to be prejudicial to the public interest which do not give cognizance to the multiple-purpose concept.

ated December 2, 1985

WATER RESOURCES COMMISSION

William H. Young

William H. Young, Director
WATER RESOURCES DEPARTMENT

18A

TABLE I
JOHN DAY RIVER BASIN
Minimum Perennial Streamflows (cfs)

DEC	JAN	FEB 1-15/16-29	MAR	APR	MAY	JUN	JUL 1-15/16-31	AUG 1-15/16-31	SEP	OCT	NOV	Priority Date
JOHN DAY RIVER MAINSTEM												
John Day River from Rail Creek to USGS gage 14-03850												
25	25	25	24	24	24	25	15	15/34	34	25	25	11/03/83
John Day River from USGS gage 14-034530 (above John Day) to South Fork												
80	80	80/116	116	116	116	80	50/30	30	30	50	80	11/03/83
John Day River from South Fork downstream to North Fork												
120	120	120/140	140	140	140	120	40	40	40	40	120	11/03/83
John Day River at USGS gage 14044000 (near Service Creek)												
30	30	30	30	30	30	30	30	30	30	30	30	4/03/64
John Day River at USGS gage 14048000 (at McDonald Ferry)												
20	20	20	20	20	20	20	20	20	20	20	20	4/03/64
Canyon Creek from East Fork to mouth (near John Day)												
25	25	25/34	34	34	34	25	15/9	9	9	9	15	11/03/83
Beech Creek: from East Fork to mouth (near Mt. Vernon)												
30	30	30/44	44	44	44	30	15/8	8	8	8	15	11/03/83
South Fork of John Day River from Black Canyon to mouth (at Dayville)												
100	100	100/173	173	173	173	100	50/25	25	25	25	50	11/03/83

DEC	JAN	FEB 1-15/16-29	MAR	APR	MAY	JUN	JUL 1-15/16-31	AUG	SEP 1-15/16-31	OCT	NOV	Priority Date
JOHN DAY RIVER MAINSTEM												
Cottonwood Creek (below Dayville): to mouth												
10	10	10/15	15	15	15	10	7/3	3	3	3	10	11/03/83
Rock Creek: from Mountain Creek to mouth (in Picture Gorge)												
35	35	35/50	50	50	50	35	20/10	10	10	10	20	11/03/83
Bridge Creek from mouth of Bear Creek to mouth												
25	25	25/40	40	40	40	25	15/6	6	6	6	25	11/03/83
NORTH FORK OF JOHN DAY RIVER												
Granite Creek: from Clear Creek to mouth												
55	55	55	71	71	71	55	30	30/71	71/30	30	30	11/03/83
North Fork at Dale												
55	55	55	55	55	55	55	55	55	55	55	55	4/03/63
North Fork from USGS gage 14-0440 (near Monument) to mouth												
55	55	55	55	55	55	55	55	55	55	55	55	04/03/64

DEC	JAN	FEB 1-15/16-29	MAR	APR	MAY	JUN	JUL 1-15/16-31	AUG 1-15/15-30	SEP 1-15/16-30	OCT 1-15/16-31	NOV	Priority Date
MIDDLE FORK OF JOHN DAY												
Clear Creek to mouth												
18	18	18	25	25	25	18	10/4	4/25	25/10	10	10	11/03/83
Middle Fork from USGS gage 14-0440 (near Ritter) to mouth												
10	10	10	10	10	10	10	10	10	10	10	10	04/03/64
80*	80	80/125*	125*	125*	125*	80*	50/25*	25/125*	125/50*	50*	80*	11/03/83

BEFORE THE WATER RESOURCES COMMISSION

OF THE

STATE OF OREGON

In the matter of formulating an integrated, coordinated program for the use and control of the water resources of the John Day River Basin	)))))	John Day River Basin December 2, 1985*

WHEREAS the State Water Resources Board under the authority of ORS 536.300 has undertaken a study of the John Day River Basin as delineated on State Water Resources Board Map, File 6.70146;

WHEREAS results of this study have been published in the State Water Resources Board Report, John Day River Basin and the Water Resources Department has conducted further studies pertaining to the development of water resources of the basin;

WHEREAS in these studies consideration was given to means and methods of augmenting, conserving and classifying such water resources, existing and contemplated needs and uses of water for domestic, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses, and for pollution abatement as well as other related subjects including drainage, reclamation, and flood control; and

WHEREAS the Water Resources Commission under the authority of ORS 536.300 through ORS 536.340 may classify or establish minimum perennial streamflows on the water resources of the John Day Basin;

WHEREAS as a result of said studies the following findings and conclusions have been reached by this Commission:

1. The total basin yield is adequate on an average-year basis to supply all existing and presently contemplated needs and uses of water.

2. There are areas where the yield is not adequate to supply existing needs during a critical year.

3. Flows are not sufficient during low-flow months to meet existing or future instream or out-of-stream demands.

4. Simultaneous use of a major portion of the existing consumptive water rights results in flows at or near the zero level in many streams during the summer and early fall months.

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* Modifies John Day River Basin programs dated April 3, 1964, and April 4, 1981,

5. Flows at or near the zero level also occur under existing conditions on many streams having little water under appropriation.

6. Augmentation of the water supply in periods of need can come through more efficient use of presently appropriated water.

7. There are many physically feasible storage sites.

8. Available data indicate that the ground water resource is limited.

9. Ground water represents an important source of water, primarily in meeting existing domestic, livestock, and municipal needs.

10. There are substantial quantities of unappropriated water.

11. Over 1,400,000 acre-feet of the waters of the John Day River and its tributaries were withdrawn in 1915 by the State Engineer for out-of-basin diversion for irrigation, power and domestic purposes. This withdrawal amounts to more than the average annual discharge of the John Day River at McDonald Ferry.

12. No water has been applied to beneficial use under the aforementioned withdrawal.

13. Utilization of this withdrawal and its priority will preclude maximum beneficial use of the waters of John Day River within the basin.

14. More than 25 percent of the land holding water rights is no longer irrigated. More than 75 percent of the water appropriated for mining and power uses is no longer utilized for these purposes.

15. There is need to investigate modification or rescission of the aforementioned withdrawals and unused rights.

16. There is need to insure water for domestic, livestock, municipal, and wildlife uses which, while small, are of great importance.

17. There is need to develop stock water facilities for better range utilization.

18. Irrigation is and will continue to be the major consumptive use of water.

19. Irrigation development is restricted by the limited acreage of bottom land and the unfavorable location of other arable land.

20. Most irrigated lands do not receive an adequate supply of water throughout the irrigation season in an average water year and experience severe shortages in a critically low water year.

21. Storage would be necessary to provide an adequate water supply for irrigated and irrigable lands.

22. The hydroelectric power potential of the basin is limited.

23. Existing stream regimen and water use reduce the desirability of hydroelectric power development in the basin.

24. Present industrial use of water is small and is not expected to increase materially.

25. There is potential for increased mining activity.

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27. Water-based recreation is limited by low seasonal streamflows and the small number of lakes and reservoirs.

28. The natural lakes have significant recreational value.

29. The main stem of the John Day River from Service Creek Bridge (river mile 157) to Tumwater Falls (river mile 10) is designated as a State Scenic Waterway.

30. Aquatic life, including fish life, is and will continue to be the major nonconsumptive use of water.

31. A major conflict exists between irrigation and fish life use of water.

32. There is potential for enhancement of fish life and recreation.

33. Storage or other watershed management measures would be required to attain flows for enhancement of fish life and recreation.

34. Flows recommended by fisheries agencies are substantially higher at many locations than the flow levels that exist during an average water year.

35. Maintenance of minimum perennial streamflows would benefit fish life, wildlife and recreation.

36. Thirteen minimum perennial streamflows included in the Senate Bill 225 (1983) application are located in the John Day River Basin.

37. The proposed minimum streamflows would protect flows during parts of the year for important populations of wild anadromous and resident fish in the mainstem John Day River and its North, Middle, and South Forks; Beech, Canyon, Cottonwood, Rock and Bridge Creeks tributary to the mainstem John Day River; Clear Creek tributary to Middle Fork John Day River; and Granite Creek tributary to the North Fork John Day River.

8. Municipal use for Mitchell, Dayville, and Mt. Vernon is of greater importance than support of fish life and should be exempted from minimum perennial streamflows.

39. Existing industrial use is more important than fish life use in the river reach from gage 14038530 to the North Fork.

40. Exemption of industrial applications filed before December 2, 1986 would allow development of alternative sources for existing and future industrial demands.

41 Criteria for the determination of desirable base flows commensurate with all beneficial uses of water have not been developed.

42. Agriculture is a more important use than increasing the existing minimum flows on the North Fork John Day

43 Pollution of surface and ground water is local, intermittent in occurrence, and is not a serious basinwide problem.

44. Utilization of flows to minimize pollution should only be permitted if it does not limit or conflict with the multiple-purpose objectives for water use in the basin.

45. Flooding and streambank erosion are serious local problems in some areas.

46 Erosion of cropland and rangeland is a major problem and often results in siltation of streams.

47. Major drainage problems occur on irrigated lands

48. Because of physical and economic factors, classification of certain waters for limited-purpose use would be in the public interest

NOW THEREFORE BE IT RESOLVED that this Commission hereby adopts the following program in accordance with the provisions of ORS 536.300(2) pertaining to the water resources of the John Day River Basin

A. The maximum economic development of this state, the attainment of the highest and best use of the waters of the John Day River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, pollution abatement, wildlife and fish life uses. The waters of the John Day River Basin are hereby so classified with the following exceptions

1. The maximum economic development of this state, the attainment of the highest and best use of the waters of the natural lakes of the John Day River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, irrigation of lawn or

noncommercial garden not to exceed one-half acre in area, power development not to exceed 7-1/2 theoretical horsepower, recreation, wildlife and fish life uses, and the waters of the natural lakes of the John Day River Basin are hereby so classified.

2. The maximum economic development of this state, the attainment of the highest and best use of the waters of the John Day River from Service Creek Bridge (river mile 157) to Tumwater Falls (river mile 10), and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, industrial, mining, recreation, wildlife and fish life uses;

B. For the purpose of maintaining a minimum perennial streamflow sufficient to support aquatic life, no appropriations of water except for domestic or livestock uses shall be made or granted by any state agency or public corporation of the state for the waters listed below and as shown in Table 1:

1. The Middle Fork John Day River above its mouth or of its tributaries for flows of the Middle Fork John Day River at USGS Gage 14-0440 at Ritter (SW 1/4 NW 1/4 Section 8, Township 8 South, Range 30 East) below 10 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage.

2. The North Fork John Day River above former USGS Gage 14-0415 near Dale (SE 1/4 SE 1/4 Section 35, Township 6 South, Range 31 East) or of its tributaries above said gage for flows of the North Fork John Day River below 35 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage.

3. The North Fork John Day River above its mouth or of its tributaries for flows of the North Fork John Day River at USGS Gage 14-0460 at Monument (SE 1/4 Section 2, Township 9 South, Range 27 East) below 55 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage.

4. The John Day River above USGS 14-0465 at Service Creek (N 1/2 Section 18, Township 9 South, Range 23 East) or of its tributaries above said gage for flows of the John Day River below 30 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage.

5. The John Day River above its mouth or of its tributaries for flows of the John Day River at USGS Gage 14-0480 at McDonald Ferry (NW 1/4 Section 11, Township 1 North, Range 19 East) below 20 cubic feet per second measured at said gage except that this limitation shall not apply to waters legally stored or legally released from storage.

C. To support aquatic life and minimize pollution, in accordance with Section 3, Chapter 796, Oregon Laws, 1983, no appropriation of water shall be made or granted by any state agency or public corporation of the state for waters of the streams and tributaries in Table 1 when the flows are below the levels specified. This limitation shall not apply to:

a. Water legally stored or released from storage.
b. Domestic and livestock uses.
c. Municipal uses on Bridge Creek, South Fork John Day River, and the John Day River from USGS gage 14038530 to the North Fork.
d. Industrial use rights and industrial use under permits with priority dates before December 2, 1986 on the John Day River from USGS gage 14038530 to the North Fork.

Attainment of the specified flow levels during some portion of the year will require use of stored water or other measures to augment flows.

D. Applications for the use of the waters of the John Day River Basin shall not be accepted by any state agency for any other use and the granting of applications for such other uses is declared to be prejudicial to the public interest and the granting of applications for such other uses would be contrary to the integrated and coordinated program for the use and control of the water resources of the state.

E. Rights to use of water for industrial or mining purposes granted by any state agency shall be issued only on condition that any effluents or return flows from such uses shall not interfere with other beneficial uses of water.

F. Structures or works for the utilization of the waters in accordance with the aforementioned classifications are also declared to be prejudicial to the public interest unless planned, constructed and operated in conformity with the applicable provisions of ORS 536.310 and any such structures or works are further declared to be prejudicial to the public interest which do not give cognizance to the multiple-purpose concept.

Dated December 2, 1985

WATER RESOURCES COMMISSION

William H. Young, Director
WATER RESOURCES DEPARTMENT

4918A

TABLE 1
JOHN DAY RIVER BASIN
Minimum Perennial Streamflows (cfs)

DEC	JAN	FEB 1-15/16-29	MAR	APR	MAY	JUN	JUL 1-15/16-31	AUG 1-15/16-31	SEP	OCT	NOV	Priority Date
JOHN DAY RIVER MAINSTEM												
John Day River from Rail Creek to USGS gage 14-03850												
25	25	25	24	24	24	25	15	15/34	34	25	25	11/03/83
John Day River from USGS gage 14-034530 (above John Day) to South Fork												
60	60	60/118	118	118	118	60	50/30	30	30	50	60	11/03/83
John Day River from South Fork downstream to North Fork												
120	120	120/140	140	140	160	120	40	40	40	60	120	11/03/83
John Day River at USGS gage 14044000 (near Service Creek)												
30	30	30	30	30	30	30	30	30	30	30	30	4/03/64
John Day River: at USGS gage 14048000 (at McDonald Ferry)												
20	20	20	20	20	20	20	20	20	20	20	20	4/03/64
Canyon Creek from East Fork to mouth (near John Day)												
25	25	25/34	34	34	34	25	15/9	9	9	9	15	11/03/83
Beech Creek: from East Fork to mouth (near Mt. Vernon)												
30	30	30/44	44	44	44	30	15/8	8	8	8	15	11/03/83
South Fork of John Day River from Black Canyon to mouth (at Dayville)												
100	100	100/133	133	133	133	100	50/25	25	25	25	50	11/03/83

DEC	JAN	FEB 1-15/16-29	MAR	APR	MAY	JUN	JUL 1-15/16-31	AUG	SEP 1-15/16-31	OCT	NOV	Priority Date
JOHN DAY RIVER MAINSTEM												
Cottonwood Creek (below Dayville): to mouth												
10	10	10/15	15	15	15	10	7/3	3	3	3	10	11/03/83
Rock Creek: from Mountain Creek to mouth (in Picture Gorge)												
35	35	35/50	50	50	50	35	20/10	10	10	10	20	11/03/83
Bridge Creek from mouth of Bear Creek to mouth												
25	25	25/40	40	40	40	25	15/4	4	4	4	25	11/03/83
NORTH FORK OF JOHN DAY RIVER												
Granite Creek: from Clear Creek to mouth												
55	55	55	71	71	71	55	30	30/71	71/30	30	30	11/03/83
North Fork at Dale												
55	55	55	55	55	55	55	55	55	55	55	55	4/03/63
North Fork from USGS gage 14-0440 (near Monument) to mouth												
55	55	55	55	55	55	55	55	55	55	55	55	04/03/64

DEC	JAN	FEB 1-15/16-29	MAR	APR	MAY	JUN	JUL 1-15/16-31	AUG 1-15/15-30	SEP 1-15/16-30	OCT 1-15/16-31	NOV	Priority Date
MIDDLE FORK OF JOHN DAY												
Clear Creek to mouth												
18	18	18	25	25	25	14	10/4	4/25	25/10	10	10	11/03/83
Middle Fork from USGS gage 14-0440 (near Ritter) to mouth												
10 80*	10 80	10 80/125*	10 125*	10 125*	10 125*	10 80*	10 50/25*	10 25/125*	10 125/50*	10 50*	10 80*	04/03/64 11/03/83

BEFORE THE WATER POLICY REVIEW BOARD

OF THE

STATE OF OREGON

In the matter of formulating an integrated, coordinated program for the use and control of the water resources of the Deschutes River Basin	))))	Deschutes River Basin November 29, 1984*

WHEREAS the State Water Resources Board under the authority of ORS 536.300 completed a study of the Deschutes River Basin,

WHEREAS results of that study were published in State Water Resources Board Report, Deschutes River Basin, dated January 1961;

WHEREAS the Water Policy Review Board under the authority of ORS 536.340 may reclassify the water resources of the Deschutes River Basin;

WHEREAS the Water Policy Review Board under the authority of ORS 536.300 and 536.340 has undertaken a restudy of the water resources of the Deschutes River Basin,

WHEREAS in this study consideration was given to means and methods of augmenting, conserving, and classifying such water resources, existing and contemplated needs and uses of water for domestic, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses, and for pollution abatement as well as other related subjects including drainage, reclamation, and flood control; and

WHEREAS as a result of said study the following findings have been reached by this Board

1. The total quantity of water is sufficient on an average year basis to satisfy all existing and contemplated needs and uses of water with the exception of utilization of water to minimize pollution.

2 Flows are not sufficient on many streams during the summer months of average water years to supply existing and future demands.

3. Simultaneous use of a major portion of existing consumptive rights results in flows at or near the zero level on some streams during the summer months.

4. Augmentation of the water resources can be achieved through storage of surplus winter and spring runoff; reduction of storage, channel, and transmission losses; and more efficient use of presently appropriated water.

5. There are physically feasible storage sites in the basin.

6. Unappropriated waters of the Deschutes River and its tributaries above Bend, Tumalo Creek above Columbia-Southern Canal, Crooked River, Ochoco Creek and White River and its tributaries have been withdrawn for special uses.

7. The established limited purposes of existing storage developments restrict multiple beneficial use of the water resources.

8. The existence of ground water has been established in certain sections of the basin, but quantities have not been determined.

9. Domestic, livestock, and municipal uses of water, while important, represent minor quantities in existing and contemplated future water use.

10. Irrigation is and will continue to be the major consumptive water use in the basin.

11. Adequately irrigated agricultural lands represent only a small portion of the total irrigated area.

12. The existing irrigated acreage could be more than doubled providing an adequate supply of water were available.

13. The basin has substantial potential for power development.

14. The basin has potential for industrial development.

15. Sufficient water will not be available in many locations for major water-using industries without provision for seasonal storage, acquisition of existing rights, or development of ground water resources.

16. The use of water for mining purposes is slight and is not expected to increase materially in the foreseeable future.

17. Recreation is a major use of water and an important factor in the economy of the basin.

18. There is an abundance of reservoirs, lakes and streams available for water-based recreation in the western portion of the basin.

19. There is potential for more extensive use of existing waters for recreation purposes.

* Modifies Deschutes Basin Programs dated February 20, 1962; May 24, 1962, April 3, 1964, May 26, 1967, July 7, 1978, January 10, 1980, April 1, 1980 and April 4, 1981

20. In the area of intermittent streams, reservoirs provide water-based recreation.

21. Water consumption by wildlife does not represent a significant quantity.

22. A major conflict exists between irrigation and fish life use of water.

23. A major conflict exists between power and fish life use of water.

24. Reduction of present reservoir and stream level fluctuations, maintenance of minimum reservoir levels and improved streamflows would enhance fish life and recreation.

25. River related recreation is important to the economy of the upper Deschutes Basin.

26 The support of resident and stocked fish is essential to river-related recreation.

27. Recommended base flows suggested by fisheries agencies are substantially higher in many locations than flow levels that can be obtained during average water years under current stream regimen and existing water rights and priorities.

28. Storage and scheduled releases of excess winter and spring runoff, reduction of channel and transmission losses, or acquisition of some existing rights would be necessary to obtain the flows recommended by fisheries agencies The economic feasibility of such measures has not been determined.

29. Pollution of surface and ground water is not a significant problem at present.

30. Floods, drainage and streambank erosion are not major problems.

31. *Major foreseeable quantitative uses of water in the Deschutes River* Basin will be for irrigation, power, recreation, and fish life uses.

32. Utilization of flows to minimize pollution should not be permitted if such use limits or conflicts with the multiple-purpose concept.

33. Establishment of restrictions on further appropriations would prevent an increase in depletion potential on some streams which would aid in maintaining minimum flows.

34. Where streams are seasonally overappropriated, the establishment of restrictive actions would have no immediate physical effect until additional flows become available

35. Criteria for determination of desirable base flows commensurate with all beneficial uses have not been developed. Flow levels for recreational use may be substantially greater than flows recommended for the support of aquatic life.

36. It is imperative that single-purpose development of available sites does not preclude optimum utilization of the resource.

37. Certain major rivers, or river sections, and numerous lakes, minor streams, and creeks are by nature of their physiography, location, land ownership, or economic potential available only for limited resource uses.

38. Physical features, degree of economic development, and water use requirements vary from subbasin to subbasin.

NOW THEREFORE BE IT RESOLVED that for reason of variance in physical features, degree of economic development, and water use requirements from subbasin to subbasin, the Board adopts the following findings and issues program statements for each of the subbasins of the Deschutes River Basin.

UPPER DESCHUTES RIVER

WHEREAS the State Water Resources Board under the authority of ORS 536.300 has undertaken a study of the Upper Deschutes River Basin as delineated on State Water Resources Board Map, File 5.7014;

WHEREAS in this study consideration was given to means and methods of augmenting, conserving and classifying such water resources, existing and contemplated needs and uses of water for domestic, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses, and for pollution abatement as well as other related subjects including drainage, reclamation, and flood control, and

WHEREAS as a result of said study the following findings have been reached by this Board:

1. The total quantity of water is sufficient on an average-year basis to satisfy all existing and contemplated needs and uses of water with the exception of utilization of water to minimize pollution.

2. There is not enough water legally available on a critical-year basis to meet existing and contemplated consumptive needs within this basin.

3. Maldistribution exists with regard to physical location and with respect to availability during time of need.

4. Many streams do not provide enough flow for present nonconsumptive public uses in periods of relatively low as well as critical flow.

5. Augmentation of the water resources in periods of need would require storage of surplus runoff.

6. There are physically feasible storage sites in the basin

7. The existence of ground water has been established in certain sections of the basin, but quantities have not been determined.

8. All unappropriated waters of the Deschutes River and its tributaries above Bend have been withdrawn by the State Engineer for domestic, irrigation and power purposes.

9. A major portion of the withdrawn waters has been appropriated.

10. There is need to insure water for domestic, livestock, and municipal uses which, while small, are of benefit to the state.

11. Irrigation use of water is small in this basin and is not expected to increase materially in the foreseeable future.

12. Substantial quantities of water have been appropriated for irrigation use in downstream basins.

13. Power development appears to be economically and physically feasible.

14. There is limited potential for industrial use of water.

15. There are no existing water rights for mining operations in the basin. Potential for such use of water appears to be minor.

16. The basin has potential for expanded recreation use of water. The natural lakes and reservoirs constitute valuable recreation assets.

17. Water consumption by wildlife does not represent a significant quantity.

18. There are no anadromous fish in the basin, but resident fish constitute an important asset of the state.

19. There is potential for development of anadromous fish, but this cannot be achieved without the improvement of fish passage and low-flow conditions

20. Conflicts exist between fish life and irrigation uses of water.

21. Pollution of surface and ground water is not a significant problem.

22. Drainage and reclamation of drained lands are not significant factors in present and contemplated water use

23. Flood problems are minor.

24. Utilization of flows to minimize pollution should not be permitted if such use interferes with the multiple-purpose concept.

25 Certain lakes are, by nature of their physiography, location, land ownership, or economic potential available only for limited resource use.

26. The maximum beneficial use of the waters of the Upper Deschutes River Basin will be for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses.

NOW THEREFORE BE IT RESOLVED that this Board hereby adopts the following program in accordance with the provisions of ORS 536.300(2) pertaining to the water resources of the Upper Deschutes River Basin.

A. The maximum economic development of this state, the attainment of the highest and best use of the waters of the Upper Deschutes River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses and the waters of the Upper Deschutes River Basin are hereby so classified with the following exception:

> The maximum economic development of this state, the attainment of the highest and best use of the waters of the natural lakes of the Upper Deschutes River Basin, except for Crescent Lake, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, irrigation of lawn or noncommercial garden not to exceed one-half acre in area, power development not to exceed 7 1/2 theoretical horsepower, recreation, wildlife and fish life uses and the waters of the natural lakes, Upper Deschutes River Basin, except for Crescent Lake, are hereby so classified.

B. To support aquatic life and minimize pollution, in accordance with Section 3, Chapter 796, Oregon Laws, 1983, no appropriation of water shall be made or granted by any state agency or public corporation of the state for waters of the Upper Deschutes River and tributaries when flows are below the levels specified in Table 1. This limitation shall not apply to

1. Human and livestock consumption.
2 Water legally released from storage.

Attainment of the specified flow levels during some portions of the year will require development of water storage or implementation of other measures to augment flows.

C. Applications for the use of the waters of the Upper Deschutes River Basin shall not be accepted by any state agency for any other use and the granting of applications for such other uses is declared to be prejudicial to the public interest and the granting of applications for such other uses would be contrary to the integrated and coordinated program for the use and control of the water resources of the state.

D. Rights to use of water for industrial or mining purposes granted by any state agency shall be issued only on the condition that any effluents or return flows from such uses shall not interfere with other beneficial uses of water.

E. Structures or works for the utilization of the waters in accordance with the aforementioned classifications are also declared to be prejudicial to the public interest unless planned, constructed and operated in conformity with applicable provisions of ORS 536.310 and any such structures or works are further declared to be prejudicial to the public interest which do not give proper cognizance to the multiple-purpose concept.

MIDDLE DESCHUTES RIVER

WHEREAS the State Water Resources Board under the authority of ORS 536.300 has undertaken a study of the Middle Deschutes River Basin as delineated on State Water Resources Board Map, File 5.7014.

WHEREAS in this study consideration was given to means and methods of augmenting, conserving, and classifying such water resources, existing and contemplated needs and uses of water for domestic, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses uses, and for pollution abatement as well as other related subjects including drainage, reclamation, and flood control; and

WHEREAS as a result of said study the following findings have been reached by this Board

1. The total quantity of water is sufficient on an average-year basis to *satisfy all* existing and contemplated needs and uses of water in this basin with the exception of utilization of water to minimize pollution.

2 Maldistribution exists with regard to physical location and with respect to availability during time of need.

3. Simultaneous use of a major portion of existing consumptive rights results in flows at or near the zero level on many streams during the summer months.

TABLE 1
Minimum Perennial Streamflows
(Cubic Feet per Second)

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Priority Date
Deschutes River - to be maintained from Wickiup Reservoir to the confluence of the Little Deschutes River												
300	300	300	300	300	300	300	300	300	300	300	300	11-3-83
Deschutes River - to be maintained from Little Deschutes River to the confluence of Spring River												
400	400	400	400	400	400	400	400	400	400	400	400	11-3-83
Deschutes River - to be maintained from Spring River to North Canal Dam at Bend												
660	660	660	660	660	660	660	660	660	660	660	660	11-3-83

4. The existence of ground water has been established in certain sections of the basin, but quantities have not been determined.

5. There are legislative restrictions on the use of waters of Tumalo Creek.

6 There is need to insure water for domestic, livestock and municipal uses which, while small, are of benefit to the state.

7. Irrigation is and will continue to be the major consumptive use of water.

8 Natural flow and present degree of regulation are insufficient to satisfy existing irrigation requirements

9 Water supply will be a limiting factor in developing potential irrigable land.

10. Augmentation of the water resources in periods of need can be achieved through storage of surplus winter and spring runoff, reduction of storage, channel, and transmission losses; and more efficient use of presently appropriated water.

11. There are physically feasible storage sites.

12. There is substantial potential for power development.

13. The development of the power potential could seriously conflict with recreation and fish life values.

14. There is considerable potential for industrial use of water

15. Storage and scheduled releases of surplus winter and spring runoff; reduction of channel and transmission losses, or acquisition of some existing rights would be necessary to obtain the waters needed by major water-using industries.

16. Use of water for mining purposes is slight and is not expected to increase materially in the foreseeable future.

17. Recreation is a major use of water.

18. The Metolius River is superior as a natural recreation value.

19. Water consumption by wildlife does not represent a significant quantity.

20. There is inadequate streamflow for fishery requirements.

21. Base flows recommended by fisheries agencies are substantially higher in many locations than flow levels that can be obtained during average water years under current stream regimen and existing water rights and priorities.

22. Pollution of surface and ground water is not a significant problem.

23. Major foreseeable quantitative uses of water will be for irrigation, power, recreation and fish life.

24. Utilization of flows to minimize pollution should not be permitted if such use limits or conflicts with the multiple-purpose concept

25. Maintenance of minimum perennial streamflows would generally benefit recreation, wildlife and fish life.

26. Criteria for determination of desirable base flows commensurate with all beneficial uses of water have not been developed.

27. Certain river sections, minor streams, creeks and lakes are by nature of their physiography, location, land ownership, or economic potential available only for limited resource use.

28. The maximum beneficial use of the waters of the Middle Deschutes River Basin will be for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses.

NOW THEREFORE BE IT RESOLVED that this Board hereby adopts the following program in accordance with the provisions of ORS 536.300(2) pertaining to the water resources of the Middle Deschutes River Basin.

A. The maximum economic development of this state, the attainment of the highest and best use of the waters of the Middle Deschutes River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses and the waters of the Middle Deschutes River Basin are hereby so classified with the following exceptions:

   1. The State Water Resources Board program, Lower Main Stem Deschutes River, adopted April 3, 1964, as modified by the Water Policy Review Board.

   2. The maximum economic development of this state, the attainment of the highest and best use of the waters of the main stem, Metolius River, above river mile 13.0, and the attainment of an integrated and coordinated program for the benefit of the state

as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, irrigation of lawn or non-commercial garden not to exceed one-half acre in area, power development, recreation, wildlife and fish life uses and the waters of the main stem, Metolius River, above river mile 13.0, are hereby so classified.

3. Further, no out-of-basin diversions of the waters of the mainstem Metolius River, above river mile 13.0, shall be permitted for any use.

4. No further appropriations except for domestic or livestock uses shall be permitted for waters of the mainstem Deschutes River, *from the head of Lake Billy Chinook* near river mile 120 to the North Canal Dam near river mile 165.

5. The maximum economic development of this state, the attainment of the highest and best use of the waters of the natural lakes of the Middle Deschutes River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, irrigation of lawn or noncommercial garden not to exceed one-half acre in area, power development not to exceed 7-1/2 theoretical horsepower, recreation, wildlife and fish life uses.

B. For the purpose of maintaining a minimum perennial streamflow sufficient to support aquatic life, no appropriations of water except for domestic or livestock uses shall be made or granted by any state agency or public corporation of the state for the waters of Lake Creek or its tributaries above the confluence of Lake Creek with the Metolius River for flows of Lake Creek below 20 cubic feet per second measured at the mouth of Lake Creek except that this limitation shall not apply to waters legally stored or legally released from storage (priority date - May 24, 1962).

C. Applications for the use of the waters of the Middle Deschutes River Basin shall not be accepted by any state agency for any other use and the granting of applications for such other uses is declared to be prejudicial to the public interest and the granting of applications for such other uses would be contrary to the integrated and coordinated program for the use and control of the water resources of the state.

D. Rights to use of water for industrial or mining purposes granted by any state agency shall be issued only on condition that any effluents or return flows from such uses shall not interfere with other beneficial uses of water.

E Structures or works for the utilization of the waters in accordance with the aforementioned classifications are also declared to be prejudical to the public interest unless planned, constructed, and

operated in conformity with the applicable provisions of ORS 536.310 and any such structures or works are further declared to be prejudicial to the public interest which do not give prope, cognizance to the multiple-purpose concept.

LOWER DESCHUTES RIVER

WHEREAS the State Water Resources Board under the authority of ORS 536.300 studied the Lower Deschutes River Basin as delineated on State Water Resources Board Map, File 5.7014;

WHEREAS the Water Policy Review Board under the authority of ORS 536.300 and 536.340 has undertaken a restudy of the Lower Deschutes Basin;

WHEREAS in this study consideration was given to means and methods of augmenting, conserving and classifying such water resources, existing and contemplated needs and uses of water for domestic, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses, and for pollution abatement as well as other related subjects including drainage, reclamation and flood control; and

WHEREAS as a result of said study the following findings have been reached by this Board for the tributaries of the Deschutes River within the Lower Deschutes River Basin:

1. The total quantity of water is sufficient on an average-year basis to satisfy existing needs and uses of water with the exception of utilization of water to minimize pollution.

2. Maldistribution exists with regard to physical location and with respect to availability during time of need

3. Many streams do not provide enough flow for nonconsumptive public uses at present in periods of relatively low as well as critical flow.

4. Simultaneous use of a major portion of existing consumptive rights results in flows at or near the zero level on many streams during the summer months.

5. Flows, unless augmented by storage, would not be sufficient on most streams during the summer months to supply future consumptive and nonconsumptive demands.

6. The existence of ground water has been established in certain sections of the basin, but quantities have not been determined

7 All unappropriated waters of White River and tributaries have been withdrawn by the State Engineer for special uses.

8. There is need to insure quantities of water for domestic, livestock, and municipal uses which, while small, are of benefit to the state.

9. Irrigation is and will continue to be the major consumptive use of water.

10. Potential exists for the development of the agricultural economy through expanded irrigation

11. The unavailability of dependable supplies of adequate water in the future would be a restriction on the development of the agricultural potential of the basin.

12. Power development appears to be economically and physically feasible.

13. There is limited potential for industrial use of water.

14. Use of water for mining purposes is slight and is not expected to increase materially in the foreseeable future.

15. Recreation is an important use of water in the basin.

16. Water consumption by wildlife does not represent a significant quantity.

17. Full development of the anadromous fishery potential cannot be achieved without the improvement of fish passage and low-flow conditions.

18 Material improvement of minimum flows for fish life cannot be achieved without the development of surface water storage.

19. Pollution of surface and ground water is not a significant problem

20. Major foreseeable quantitative uses of water of the Lower Deschutes Basin will be for irrigation, recreation, and fish life.

21. Drainage and reclamation of drained lands are not significant factors in present and contemplated water use.

22. Limited flood problems exist, mainly on the eastern tributaries of the Deschutes River.

23. There are physically-feasible storage sites within the basin.

24. Small reservoirs on minor tributaries could reduce flash floods and streambank erosion and provide late-season irrigation water.

25. Utilization of flows to minimize pollution should not be permitted if such use limits or conflicts with the multiple-purpose concept.

26. Maintenance of minimum perennial streamflows would be in the public interest.

27. Certain lakes are by nature of their physiography, location, land ownership, or economic potential available only for limited resource use.

28. Criteria for determination of desirable base flows commensurate with all beneficial uses of water have not been developed, although information is available on flow requirements for aquatic life.

29. The maximum benefical use of the waters of the tributaries of the Deschutes River within the Lower Deschutes Basin will be for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses.

NOW THEREFORE BE IT RESOLVED that this Board hereby adopts the following program in accordance with the provisions of ORS 536.300(2) pertaining to the water resources of the Lower Deschutes River Basin:

A. The maximum economic development of this state, the attainment of the highest and best use of the waters of the Lower Deschutes River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses and the waters of the Lower Deschutes River Basin are hereby so classified with the following exceptions:

   1. The State Water Resources Board program, Lower Main Stem Deschutes River, adopted April 3, 1964, as modified by the Water Policy Review Board.

   2. The waters of Boulder Lake in Hood River and Wasco Counties are classified only for domestic and livestock uses; power development not to exceed 7-1/2 theoretical horsepower; recreation, wildlife and fish life uses; and irrigation not to exceed 100 acre-feet annually from water stored in the lake.

   3. The maximum economic development of this state, the attainment of the highest and best use of the waters of the other natural lakes of the Lower Deschutes River Basin, and the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, irrigation of lawn or noncommercial garden not to exceed one-half acre in area, power development not to exceed 7-1/2 theoretical horsepower, recreation, wildlife, and fish life uses and the waters of the natural lakes of the Lower Deschutes River Basin are hereby so classified.

B. For the purpose of maintaining a minimum perennial streamflow sufficient to support aquatic life, no appropriations of water except for domestic or livestock uses shall be made or granted by any state agency or public corporation of the state for the waters of the White River or its tributaries above the confluence of White River with the Deschutes River for flows of the White River below the specified flows in Table 2, except that this limitation shall not apply to waters legally stored or legally released from storage.

C. Applications for the use of the waters of the Lower Deschutes River Basin shall not be accepted by any state agency for any other use and the granting of applications for such other uses is declared to be prejudicial to the public interest and the granting of applications for such uses would be contrary to the integrated and coordinated program for the use and control of the water resources of the state.

D. Rights to use of water for industrial or mining purposes granted by any state agency shall be issued only on condition that any effluents or return flows from such uses shall not interfere with other beneficial uses of water.

E. Structures or works for the utilization of the waters in accordance with the aforementioned classifications are also declared to be prejudicial to the public interest unless planned, constructed, and operated in conformity with the applicable provisions of ORS 536.310 and any such structures or works are further declared to be prejudicial to the public interest which do not give cognizance to the multiple-purpose concept.

DESCHUTES - UPPER CROOKED RIVER

WHEREAS the State Water Resources Board under the authority of ORS 536.300 has undertaken a study of the Deschutes - Upper Crooked River Basin as delineated on State Water Resources Board Map, File 5.7014,

WHEREAS in this study consideration was given to means and methods of augmenting, conserving and classifying such water resources, existing and contemplated needs and uses of water for domestic, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses, and for pollution abatement as well as other related subjects including drainage, reclamation, and flood control, and

WHEREAS as a result of said study the following findings have been reached by this Board.

1. The total quantity of water is sufficient on an average-year basis to satisfy all existing rights to water in this basin.

2. There is not enough water on a critical-year basis to meet existing consumptive needs.

TABLE 2
Minimum Perennial Streamflows
(Cubic Feet per Second)

OCT	NOV	DEC	JAN	FEB 1-15	FEB 16-29	MAR	APR	MAY	JUN	JUL	AUG	SEP	Priority Date
Measured at USGS gage 14101400 and maintained to the confluence of the White River and Deschutes River													
60	60	60	60	60	100	145	145	145	100	60	60	60	1-10-80
60	60	60	60	60	95	95	95	95	95	60	60	60	5-24-62

49298

3. Maldistribution exists with regard to physical location and with respect to availability during time of need.

4. Simultaneous use of a major portion of existing consumptive rights results in flows at or near the zero level on many streams during the summer months.

5. Most streams do not provide enough flow for nonconsumptive public uses at present in periods of relatively low as well as critical flow.

6. The existence of ground water has been established in certain sections of the basin, but quantities have not been determined.

7. There is need to insure quantities of water for domestic, livestock, municipal and mining uses which, while small, are of benefit to the state.

8. There are no municipal water systems in the basin.

9. Irrigation is and will continue to be the major consumptive use of water.

10. Most irrigated lands in the basin do not receive an adequate supply of water.

11. Substantially more than the average annual yield of the Upper Crooked River Basin has been withdrawn by the State Engineer for irrigation purposes.

12. Power development appears to be economically and physically feasible.

13. There is limited potential for industrial use of water.

14. Water-based recreation will become a more significant use of water in this basin.

15. Water consumption by wildlife does not represent a significant quantity.

16. Game fish populations are limited because of extreme low flows, high water temperatures, and extensive populations of rough fish.

17. Pollution of surface and ground water is not a significant problem.

18 Drainage and reclamation of drained lands are not significant factors in present and contemplated water use

19. Flood problems exist mainly on the mainstem of Crooked River.

20 There are physically feasible storage sites within the basin.

21. Small reservoirs on minor tributaries could reduce flash floods and streambank erosion and provide late-season irrigation water.

22. Utilization of flows to minimize pollution should not be permitted if such use limits or conflicts with the multiple-purpose concept.

23. Criteria for determination of desirable base flows commensurate with all beneficial uses of water have not been developed.

24. The maximum beneficial use of the waters of the Upper Crooked River Basin will be for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses.

NOW THEREFORE BE IT RESOLVED that this Board hereby adopts the following program in accordance with the provisions of ORS 536.300(2) pertaining to the water resources of the Deschutes - Upper Crooked River Basin:

A. The maximum economic development of this state, the attainment of the highest and best use of the waters of the Deschutes - Upper Crooked River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses and the waters of the Deschutes - Upper Crooked River Basin are hereby so classified.

B. Applications for the use of the waters of the Deschutes - Upper Crooked River Basin shall not be accepted by any state agency for any other use and the granting of applications for such other uses is declared to be prejudicial to the public interest and the granting of applications for such other uses would be contrary to the integrated and coordinated program for the use and control of the water resources of the state.

C. Rights to use of water for industrial or mining purposes granted by any state agency shall be issued only on condition that any effluents or return flows from such uses shall not interfere with other beneficial uses of water.

D. Structures or works for the utilization of the waters in accordance with the aforementioned classifications are also declared to be prejudicial to the public interest unless planned, constructed, and operated in conformity with the applicable provisions of ORS 536.310 and any such structures or works are further declared to be prejudicial to the public interest which do not give proper cognizance to the multiple-purpose concept.

DESCHUTES - LOWER CROOKED RIVER

WHEREAS the State Water Resources Board under the authority of ORS 536.300 has undertaken a study of the Deschutes - Lower Crooked River Basin as delineated on State Water Resources Board Map, File 5.7014;

WHEREAS in this study consideration was given to means and methods of augmenting, conserving, and classifying such water resources, existing and contemplated needs and uses of water for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses and for pollution abatement as well as other related subjects including drainage, reclamation, and flood control, and

WHEREAS as a result of said study the following findings have been reached by this Board:

1. The total quantity of water is sufficient on an average year basis to satisfy all existing and contemplated consumptive needs and uses of water.

2. There are streams within the basin whose average annual yield is not sufficient to satisfy existing rights.

3. Maldistribution exists with regard to physical location and with respect to availability during time of need.

4. Simultaneous use of a major portion of existing consumptive rights results in flows at or near the zero level on many streams during the summer months.

5 Most streams in the basin do not provide enough flow for nonconsumptive public uses at present in periods of relatively low as well as critical flow

6 The existence of ground water has been established in certain sections of the basin, but quantities have not been determined.

7. There is need to insure water for domestic, livestock, municipal and mining uses which, while small, are of benefit to the state.

8. Irrigation is and will continue to be the major consumptive use of water.

9 There is additional potential for irrigation use of water.

10. Power development appears to be economically and physically feasible.

11. There is potential for industrial use of water.

12. Sufficient water will not be available in many locations for major water-using industries without the provision of seasonal storage.

13. Reservoirs will provide a major portion of water-based recreation.

14. The waters of the Crooked River, including Opal Springs, from rive mile 6.5 to river mile 18.0, are a valuable source of municipal, irrigation, and industrial water.

15. Little potential for enhancement of fish life exists and is dependent upon securing adequate streamflow.

16. Increases of population and the need to serve presently unsewered areas will require municipal sewerage works to be expanded

17. Limited flood problems exist.

18. A coordinated plan of operation of Ochoco and Prineville Reservoirs will materially alleviate flood damages in the Prineville Valley.

19. There are physically feasible storage sites within the basin.

20. Small reservoirs on minor tributaries could reduce flash floods and streambank erosion and provide late-season irrigation water.

21. Utilization of flows to minimize pollution should not be permitted if such use limits or conflicts with the multiple-purpose concept.

22. Certain river sections, minor streams and creeks are by nature of their physiography, location, land ownership, or economic potential available only for limited resource use.

23. Criteria for determination of desirable base flows commensurate with all beneficial uses of water have not been developed.

24. The maximum beneficial use of the waters of the Deschutes - Lower Crooked River Basin will be for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses.

NOW THEREFORE BE IT RESOLVED that this Board hereby adopts the following program in accordance with the provisions of ORS 536.300(2) pertaining to the water resources of the Deschutes - Lower Crooked River Basin:

A. The maximum economic development of this state, the attainment of the highest and best use of the waters of the Deschutes - Lower Crooked River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish life uses and the waters of the Deschutes - Lower Crooked River Basin are hereby so classified with the following exceptions:

1. The State Water Resources Board program, Lower Main Stem Deschutes River, adopted April 3, 1964, as modified by the Water Policy Review Board.

2 No further appropriations of water except for domestic or livestock uses shall be made or granted by any state agency for the waters of Ochoco Creek and its tributaries.

B. Applications for the use of the waters of the Deschutes - Lower Crooked River Basin shall not be accepted by any state agency for any other use and the granting of applications for such uses is declared to be prejudicial to the public interest and the granting of applications for such other uses would be contrary to the integrated and coordinated program for the use and control of the water resources of the state.

C. Rights to use water for industrial or mining purposes granted by any state agency shall be issued only on condition that any effluents or return flows from such uses shall not interfere with other beneficial uses of water.

D. Structures or works for the utilization of the water in accordance with the aforementioned classifications are also declared to be prejudicial to the public interest unless planned, constructed and operated in conformity with the applicable provisions of ORS 536.310 and any such structures or works are further declared to be prejudicial to the public interest which do not give proper cognizance to the multiple-purpose concept.

Dated November 29, 1984

WATER POLICY REVIEW BOARD

Ralf Yakanson, Chairman
WATER POLICY REVIEW BOARD

4929A

VICTOR ATIYEH
GOVERNOR

OREGON STATE
LAND BOARD

VICTOR ATIYEH
Governor

BARBARA ROBERTS
Secretary of State

BILL RUTHERFORD
State Treasurer

Division of State Lands

1600 STATE STREET, SALEM, OREGON 97310 PHONE 378-3805

November 17, 1986

Bob Brown
Office of State Forester
2600 State Street
Salem, OR 97310

Re. Ochoco National Forest Agency Response

Dear Bob

Our concern is that the Forest Service has not addressed the effect their management plan will have on similar resources managed by the state or adjacent private lands.

The federal government, as the major landowner in a geographical area, can, with it's management policies, enhance or stifle the economy or alter the development of that area, We feel this is a very important aspect which needs attention in the management plan.

Thank you for your consideration in this matter I will look forward to seeing you at the meeting on November 24.

Sincerely,

Perry E. Lumley
Engineering Technician

PEL/amg
0492E

VICTOR ATIYEH
GOVERNOR

Oregon Department of Agriculture

635 CAPITOL STREET NE, SALEM, OREGON 97310-0110

November 5, 1986

James E. Brown, State Forester
Oregon Forestry Department
2600 State St.
SALEM OR 97310

Dear Jim:

The proposed Land and Resource Management Plan of the Ochoco National Forest and Crooked River area is within the Jefferson, Wheeler, Grant, Crook, Deschutes, and Harney County Soil and Water Conservation Districts. Each of these districts are governed by a Board of local elected Directors who, under the Oregon Soil and Water Conservation District Laws, ORS 568, have a responsibility to work with the Forestry Department as described in the Memorandum of Understanding between the Department of Agriculture and the Forestry Department.

ORS 568.225 empowers the districts to provide for conservation of renewable natural resources of the state, to conserve and develop natural resources, control and prevent soil erosion, control floods, conserve and develop water resources and water quality, preserve wildlife, conserve natural beauty, and promote recreational development.

Each chapter of the Ochoco National Forest and Crooked River proposed Land and Resource Management Plan identifies areas where the soil and water conservation districts would have concerns. Such as, how the implementation would affect the soil and water runoff, and to what extent erosion and sedimentation would be kept to a level within acceptable standards.

The study, as written, defines areas that show what is being proposed to minimize soil and water problems. If these suggestions are followed throughout the program, and if assistance from Soil Conservation Service and soil and water conservation districts is utilized, there would be greater chance of improved soil and water conservation practices being followed throughout the study area.

Sincerely,

George C. Stubbert, Administrator
Soil & Water Conservation Division
(503) 378-3810

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VICTOR ATIYEH
GOVERNOR

Department of Energy

625 MARION ST NE, SALEM, OREGON 97310 PHONE 378-4040 TOLL FREE 1-800-221-8035

November 7, 1986

Mr James E Brown, State Forester
Oregon Forestry Department
2600 State Street
Salem, OR 97310

SUBJECT Ochoco National Forest and Crooked River National Grassland Proposed Land and Resource Management Plan

Dear Mr Brown

The Oregon Department of Energy has reviewed the Forest and Grassland Proposed Land and Resource Management Plan, DEIS and Appendices The Department has no problems with the Proposed Forest and Grassland Plan

Areas of interest to the Department are siting of major energy facilities and policies concerning development of energy resources Major energy facilities include fossil-fueled, geothermal, hydroelectric and biomass plants over 25 MW in size, biomass-fueled co-generation plants in excess of 50 MW capacity, high voltage transmission lines and large pipelines Our comments are below

Fossil Fuels The DEIS suggests that 90 percent of Ochoco lands are prospectively valuable for oil or gas resources ODOE feels the lack of conclusive data, other than speculative leases, may not support that conclusion However, ODOE agrees that any post leasing activities will be evaluated through both NEPA and prescriptions developed in this plan In addition, there appears to be little potential of siting a fossil-fueled power plant in the Forest and Grassland Thus, none of the alternatives presented by the DEIS, including the Preferred Alternative, appear to have any effect on siting these facilities

Geothermal The low potential of finding exploitable geothermal resources in the Forest and Grassland is indicated in the DEIS ODOE agrees with this conclusion and the resulting lack of specific policies addressing development of this energy resource In addition, other federal standards exist should development ever appear likely

Hydroelectric There appears to be little potential to develop additional hydroelectric facilities which are larger than 25 megawatts in the Forest and Grassland Thus, none of the alternatives presented in the DEIS appear to have any effect on siting these facilities

The Oregon Department of Energy is an Equal Opportunity Employer

Biomass There appears to be little potential of siting a biomass-fired power plant in the Forest and Grassland in the next ten to fifteen years Thus, none of the alternatives presented by the DEIS, including the Preferred Alternative, appear to have any effect on siting these facilities

Transmission Lines and Pipelines The DEIS indicates that transmission lines and pipelines cross portions of the Forest and Grassland, and that additional facilities are likely in the future The DEIS states that all alternatives allow the transmission of power through the area Thus, the Department has no objection to the Proposed Alternative However, the DEIS contains no discussion of the effects of the alternatives on siting transmission lines and pipelines Given the likelihood that future transmission lines and/or pipelines will need to cross the Grassland, the DEIS would benefit from including such a discussion

Sincerely

Lynn Frank
Director

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VICTOR ATIYEH
GOVERNOR

Department of Geology and Mineral Industries
ADMINISTRATIVE OFFICE
910 STATE OFFICE BLDG , 1400 SW 5th AVE , PORTLAND, OR 97201-5528 PHONE (503) 229-5580

November 12, 1986

Mr. James E. Brown
Department of Forestry
2600 State Street
Salem, Oregon 97310

Dear Jim,

We have prepared this response to the Draft Environmental Impact Statement to the Proposed Land and Resource Management Plan for the Ochoco National Forest & Crooked River National Grassland.

Apparently the planning team has a minimal background in geology and mineral resources. A different set of standards were used for minerals than for other resources. For example, a dollar value was placed on campers using the forest but the thousands of dollars worth of mineral exploration that has occurred in recent years was not counted. Thousands of dollars worth of gemstone production from commercial and recreational sites was not counted. The $999,000 ($3.00 per ton for 333,000 tons) of road metal (aggregate) was not counted; however, a cost figure of $866,080 was used for mineral operations and maintenance program management.

Appendix B - Description of Analysis Process contains no inventories for minerals, no maps showing rock quarries, mining claims, gemstone mines or metal mines. The data base does not reflect the gold and other geochemical anomalies, found in the Department's open-file reports 0-83-4 and 0-86-6, which suggest mineral potential. It is surprising that the land was rated as moderate or high mineral potential without an adequate mineral resource data base.

The following detailed comments may be helpful in revising these documents.:

Appendices - Draft Environmental Impact Statement

Page	Comments
A-5	The issue of "Provide a mining and mineral inventory" and "Geothermal energy opportunities should be studied and developed" were deferred for resolution outside of Forest Plan. However, judgments were made in these documents that could only be made based on inventory data.
B-4,5 & 6	If inventories could be performed on recreation, cultural resources, ecoclass, and soil and water, why not minerals including energy?
B-44	On this page minerals had a cost of $866,080. Under Benefits pages B-45 to B-50 minerals are not listed except as something that would hurt the protecting of historic and cultural resources. Under Priced Benefits should include the value of road metal, gemstone production, and mineral exploration. Oil and gas and geothermal energy lease revenues should also be included under Price Benefits.
C-5 &C-8	For the Lookout Mountain roadless area on page C-5 only 2 mines are within the roadless boundaries, on page C-8 there are 200 mining claims within the boundaries.
C-40	How was the grading of Moderate Potential for the Greer Mountain roadless area derived? The potential given for those roadless areas with mining, claims, mines, and mining districts are listed as unknown.
E-3	The Department and BLM have identified a potential gold mineralized area just to the south of Haystack Butte. This area should not be withdrawn from mineral location or leasing.

Draft Environmental Impact Statement

Page	Comments
12	Under Net Public Benefits, only Federal minerals are listed as having a market value. The market value of the exploration, development, and mining of locatable minerals should be added.
17	It is shown that Alternative H would emphasize market opportunities. This is the alternative that is used until formal mineral inventory is completed.
49	The statement is made that alternatives have little effect on mineral activities is not true. Withdrawing acres from mineral location has an effect of mineral activity. Under Economic Benefits the production of locatable minerals is not considered.
79	The Forest Service has not performed a mineral resource inventory but under "Cultural Resources" mines and mining camps have been inventoried.
83	The statement is made that "Mineral and Energy Resources on Forest and Grasslands" have been classified in terms of potential value and existing access restrictions. How can this be so when there has not been a mineral inventory? The statement is made that the forest and grassland have no known geothermal resources. The Department's geothermal maps show a warm water spring on the Forest.
146	The bias against mineral production is shown in the statement that several old mines may meet the National Register and that potential could be used against re-establishing any of these mines.
162	The jasperoid being mined may be an indicator of a hot spring gold systems and rockhound sites should not be withdrawn from being located under the mining law
163	A mineral inventory should be completed before areas are picked for Research Natural Area.
180-186	No geologist or mineral people were listed as preparers.
217-226	No mineral or geology reports were listed in the references.

Sincerely,

John D. Beaulieu
Deputy State Geologist

JDB:ab
AT1/word/brown

VICTOR ATIYEH
Governor

Department of Environmental Quality

522 S W FIFTH AVENUE BOX 1760, PORTLAND OREGON 97207 PHONE (503) 229 5696

November 7, 1986

James E. Brown, State Forester
Forestry Department
Office of State Forester
2600 State Street
Salem, Oregon 97310

Subject. Draft Environmental Impact Statement and Plan for the Ochoco National Forest and Crooked River National Grassland

Dear ~~Mr. Brown~~ Jim.

The Department has reviewed the Draft Environmental Impact Statement (DEIS) and Plan for the Ochoco National Forest and Crooked River National Grassland and provides the following comments for the Forest Service to use in preparing the State's coordinated response. These comments are related to air quality and water quality impacts of the proposed Plan. The Department does not recommend a "preferred alternative" at this time. The deficiencies outlined below reflect a need for background information that is necessary for the Department of Environmental Quality to evaluate and select an alternative After this information is included in the EIS, the Department would be more capable of recommending a preferred alternative.

Regarding air quality, the Department's main area of concern is that of air quality impacts related to forest prescribed burning The EIS indicates that significant increases in emissions from prescribed burning are likely under most alternatives over the next 20-30 years If emissions are expected to increase above 1977-78 baseline levels, an analysis needs to be included in the plan regarding the impact of the proposal with respect to the Clean Air Act and Oregon Clean Air Implementation Plan requirements; the impact of planned burns on nearby Class I and II areas, the impact of proposed prescribed burning activities on the Visibility Protection Plan, and consistency of the proposed Plan with Federal and State environmental policies.

Regarding water quality, the Department's concerns are that the Plan be consistent with Oregon's adopted Statewide Water Quality Management Plan for forest practices as required by the Clean Water Act. It is important to ensure that the proposed activities of timber harvest, road construction, chemical handling and usage, sewage disposal, livestock grazing and other forest land activities comply with Oregon's water quality standards and guidelines. Adequate information exists in the draft EIS for

some factors such as sediment and temperature control from forest management activities. However, equally important information on other factors in a multiple use forest, such as sediment control from grazing and motorized recreation, is lacking. In addition, findings need to be made regarding the relationship between baseline water quality conditions and the effects of the planned forest activities.

Thank you for allowing us the opportunity to review the Draft EIS. The Department looks forward to reviewing the amendments to the Draft EIS before a final recommendation is made regarding the "preferred alternative" Forest Management Plan.

Sincerely,

Fred Hansen
Director

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ivisions' Attachment

State of Oregon
Department of Environmental Quality
Comments on the Draft Environmental Impact Statement
and Plan for the
Ochoco National Forest and
Crooked River National Grassland

I. AIR QUALITY

This checklist summarizes Department of Environmental Quality, Air Quality Division concerns that should be included in the Environmental Impact Statement (EIS) for the Ochoco National Forest and Crooked River National Grassland that was submitted for Department review. This list is not intended to be all inclusive, but should rather be viewed as a framework outlining the major areas which should be addressed in the EIS. Statements which fail to address the concerns listed will be considered inadequate to meet Department approval.

The checklist is organized into 4 major sections, each of which should address the adequacy and consistency of the proposed plan with respect to the following elements·

1 Attainment and Maintenance of Air Quality Standards
2 Prevention of Significant Deterioration Requirements
3. Visibility Protection of Class I areas
4. Consistency with respect to Federal and State of Oregon environmental policies

Current information describing air quality monitoring activities and summarizing air quality conditions across the state may be found in the Air Quality Division's Annual Report Copies of this report and other information can be obtain by writing to the Division or calling (503) 229-5380. Technical assistance and guidance in the preparation of EISs is available from the Department on request

In reviewing forest plan EISs, the principal issue of concern to the Department related to air quality is that of air quality impacts related to forest prescribed burning A basic requirement related to air quality of an EIS is presentation of an analysis of planned burning in relation to past burning activities Generally, if it can be shown that projected annual and daily air pollutant emissions do not exceed, or are expected to be less than that which occurred during the baseline period, then issues discussed in Sections 3 and 4 are satisfied and no additional technical analysis of these issues is required. Since the baseline used in the analyses reflects current emissions, an evaluation of current versus 1977-

78 emission levels is required to relate projected emissions and impacts to the PSD baseline period,

In the DEIS section on air quality effects of each alternative (pages 103-104), it is projected that all of the alternatives (with the exception of "D") will result in a reduction in emissions 20 to 30 years in the future. In the interim, increases in emissions of as much as 39% above current levels are expected to occur The projected increase in emissions (as much as 4,000 tons tsp per year) is significantly above the emission baseline and will require completion of a detailed analysis of emission impacts on PSD increments, Class I area visibility, attainment/maintenance of air quality standards and consistency with environmental policies.

1 Attainment and Maintenance of Air Quality Standards.

A basic requirement of the EIS is to evaluate the impact of the proposal with respect to the Clean Air Act and the Oregon Clean Air Implementation Plan requirements. The first issue that must be addressed is that of impacts on air quality standards attainment and maintenance. Specifically, the EIS must show that the proposed action does not cause or significantly contribute to air quality standard violations. Air quality impacts within an attainment area, such as where the Ochoco National Forest is located, must not exceed Prevention of Significant Deterioration (PSD) increments (see attached Table 2) nor may the impacts cause violations of air quality standards (See DEQ Annual Air Quality Report) estimated by summing current air quality conditions and the estimated increment for the appropriate averaging times.

2. Prevention of Significant Deterioration

Part C of the Clean Air Act, requires the Department to insure that pollutant increments in Class I areas do not exceed specific limits adopted by Congress irrespective of the originating source (see attached Table 2) To assure that these increments are not exceeded due to planned increases in prescribed burning emissions, a technical analysis of the impact of planned burns on nearby Class I areas (see DEQ Annual Air Quality Report) and Class II lands is required. If the analysis indicates significant impacts, specific quantifiable measures designed to mitigate the impacts must be described in the EIS.

3. Visibility Protection For Class I Areas

The Oregon Visibility Protection Plan, adopted by the Environmental Quality Commission on October 24, 1986, requires the protection of visibility within Class I areas during the period of the July 4th weekend to Labor Day, inclusive. The EIS should describe the Forest's

Smoke Management Plan as it applies to Class I area visibility protection and evaluate the impact of proposed prescribed burning activities with respect to (a) assuring the continued protection of visibility within Class I areas from further deterioration and (b) the affect of proposed burning activities on short and long-term visibility control strategies as outlined in the Visibility State Implementation Plan (SIP) Copies of the adopted visibility protection plan are available from the Department.

4. Consistency With Federal and State Environmental Policies.

Department policy (OAR 340-20-001) requires that Highest and Best Practicable Treatment and Control be applied to pollution sources within Oregon OAR 340-13-005, Environmental Standards for Wilderness Areas, sets forth policy on environmental impacts within wilderness lands while USDA Forest Service Region VI policy (Service Manual No 2400, Supplement 347, March 1985) requires that, in recognition of the value of forest residues utilization, prescribed burning only be accomplished for those units where all other alternative treatments are unacceptable. The EIS should include a statement addressing the consistency of the proposed plan with respect to these policies, stating the degree to which alternatives to prescribed fire have been considered.

For further information regarding air quality, contact John Core (229-5380).

Table 1
Significant Air Quality
Ambient Air Quality Impacts
For Nonattainment Areas
(micrograms per cubic meter)

Pollutant	Annual	24-Hour	8-Hour	3-Hour	1-Hour
SO2	1.0	5 0		25 0	
TSP	1 0	5 0			
NO2	1.0				
CO *			0 5		2.0

* Milligrams per cubic meter

Table 2
Maximum Allowable Increases
(PSD Increments)
Micrograms Per Cubic Meter

Class I Areas

Pollutant	Annual	24-Hour	8-Hour	3-Hour
SO2	2.0	5.0		25.0
TSP	5.0	10 0		

Class II Areas

Pollutant	Annual	24-Hour	8-Hour	3-Hour
SO2	20 0	91.0		512 0
TSP	19.0	37 0		

Class III Areas

Pollutant	Annual	24-Hour	8-Hour	3-Hour
SO2	40.0	182 0		700.0
TSP	37 0	75 0		

II WATER QUALITY

The Management Plan and DEIS were reviewed within the concept that land management activities have the potential to beneficially or adversely impact the quality of the waters in the forest land downstream of the forest The Management Plan has the opportunity to improve existing degraded resources and to maintain or protect existing desired resource conditions. The level of emphasis placed on water quality conditions and the processes used to protect that quality play an important role in providing guidance to the managers in the future on a project-by-project basis

The Water Quality Division comments are detailed in the following five sections

1 Consistency with Provisions of the Clean Water Act

The Plan provides a goal statement to maintain or improve water quality It also has a goal of maintaining or restoring inherent biological, physical, and aesthetic values of riparian ecosystems We believe these are comparable goals, both of which, will maintain or improve water quality in the forest. Two comments need to be made regarding these goals (1) We request that specific reference to Oregon's Water Quality Standards (OAR Chapter 340, Division 41) and Oregon's Forest Practice Rules (OAR Chapter 629, Division 24) be added to the water quality goal statement (page 25, Proposed Plan) (2) There are no existing state water quality standards for riparian areas as stated in DEIS Table S-3, "Riparian Conditions " We agree that the condition of the riparian zone can have an impact on the water quality That is the concept used in the current forest practice rules and in the proposed riparian rules currently before the Board of Forestry We believe the statements made in Table S-3 are necessary but would suggest the following clarifying word change "Any degraded riparian areas found to be adversely affecting water quality will be improved to assure that the water quality meets State Water Quality Standards " We agree with the streams listed for riparian improvement in the Plan's Appendix A4

The proposed Plan appears to be consistent with the state's Water Quality Management Plan for the John Day and Deschutes River Basins. The "Desired Condition" statement for river temperatures is accurate.

It is obvious that the Forest Service staff is aware of the problem areas and those solutions necessary to correct the water quality problems This is apparent by the discussion in the DEIS beginning on page 107 What is not clear in the discussion is whether the proposed improvements and mitigation efforts for forest management are solely directed at mitigating forest harvest impacts or are in

concert with the proposed grazing activities. The Proposed Plan shows an increase in animal unit months (AUMs) by range allotment, with many allotments showing an increase in grazing pressure How does the Forest Service propose to handle the increased grazing pressure and yet improve riparian zone conditions? What specific forest grazing procedures will be used? We believe the response to these questions should be displayed in the Plan and be included in an expanded discussion on page 111 of the DEIS

The Plan discusses standards and guidelines for water quality The discussion translates these standards into levels of activity for forest management This is appropriate in the Plan if the process of translating watershed sensitivity into forest management requirements is described in the DEIS or the Plan We commend this effort and strongly support the concept of using an equivalent clear-cut area (ECA) standard. From our perspective, two items need to be addressed in the discussion of ECAs and their utility (1) What criteria were used to derive the ECA values from the stream sensitivity values? (2) How will the ECA value be determined and implemented in a specific watershed?

The Plan also discusses standards for sewage disposal We request you include the following language "Sewage treatment and disposal facilities shall be approved by the Department of Environmental Quality or its contract agents and shall be in compliance with rules of the Environmental Quality Commission "

We would like to recognize the Forest Service staff's effort to make predictions of sediment yield for each alternative and to predict changes over time. The various tables where these predictions are shown generate some questions

(1) Is the unit of measure correct for sediment in DEIS Table II-3A part 2 and Table S-2 part 2? Should it be tons/acre/year? If the unit of measurement is correct as stated, then we would disagree with the predicted 1 8 ton/year value for the preferred alternative and would like to see the analysis supporting the prediction

(2) Are the values for sediment yield displayed in the same tables an average for the forest? If so, are there watersheds with larger amounts of sediment production and are these the same watersheds listed in Plan Appendix A4?

(3) Do these values incorporate erosion from grazing?

Discussion of existing water quality and trends is inadequate considering the public value placed on the forest for visual quality, recreation and water quality. We suggest the Plan and DEIS provide the existing water quality in a section of the appendices to the DEIS. Is the material in the Plan Appendix A4 also those streams with the poorest water quality? With the magnitude of the potential impacts that this Plan can have on water quality, it is vitally important to display the baseline water quality conditions in some detail prior to implementation of the Plan

2 Review of Water Quality Monitoring Plans

Statements of goals and the accompanying Plan to achieve the goals and objectives, in our estimation, are only a portion of what is necessary in a plan The Plan must also include a process to assess its effectiveness in protecting the water quality during the life of the Plan

The monitoring Plan that was reviewed is contained in Tables V-2 and V-3 in the Plan We find the proposed monitoring in the soil resource section adequate for water quality. We did not find the same activity proposed for range, wildlife, or wilderness areas We believe that water is a resource that needs management and monitoring for quality and quantity A suggested modification to Table V-2 to cover our concerns would be to add "water" to the "Resource/Activity" column and add "quality" in the "Action and Effect Monitored" column In the "Units of Measure" column, add "pesticide, herbicide as appropriate."

3 Review of Management Strategies and Alternatives

The DEQ made no attempt to determine a preferred alternative for water quality We recognize that this is a land management plan, so we are concerned with the various levels of potential water quality impacts from those land activities We also recognize that differences in management intensity of an activity among alternatives will create varying potential impacts on water quality

We reviewed all alternatives and management strategies and prescriptions with interest towards the degree of potential for water quality impacts and the opportunities available to ensure water quality protection We assumed that the higher the level of soil disturbance by activities, the greater the potential for erosion problems, also, the greater the encouragement for recreation and livestock grazing, the greater the potential for additional water quality problems.

If the proposed Plan alternative can maintain or improve water quality (as suggested on page 27 of the Plan), then the DEQ could support the preferred alternative However, we are not convinced from what we have been presented for review that this goal can be fully achieved This assessment is based on a lack of information on grazing techniques and the effectiveness of ECAs as proposed. Included in this concern is our understanding that the Forest Service is proposing to encourage harvest of tree species that are located closer to streams. Such harvesting practice will potentially place greater pressure on the water resource

4 Review of Management of Special Use Watersheds

We concur with the management prescriptions designed for wilderness and "semi-primitive nonmotorized" areas The management prescriptions for "semi-primitive motorized" areas lacks a prescription for protecting water quality. It is our opinion that a major source of sediment production can come from these areas if they are not controlled for erosion Increased sediment production to the streams will occur without mitigation and should be so stated A prescription for erosion control should be included.

The Plan does not discuss management considerations for small private water systems that might include the national forest as part of their watersheds. Protection should be provided to any such watersheds in the *Ochoco National Forest The Plan should also describe how the* protection program will be monitored.

5. Review of Plan for Ground Water Quality Protection

The Plan virtually ignores the ground water component of the hydrologic cycle. Although ground water probably will be minimally affected by forest management activities, the plan should recognize the importance of ground water quality protection and discuss the following points

a) Activities that affect ground water quality will eventually affect surface water quality Conversely, change in surface water quality might be reflected in ground water quality

b) Lakes with unique pristine water quality may need special ground water protection requirements to prevent nutrient enrichment, particularly with regard to sewage disposal practices associated with intensive recreational use

c) All sewage disposal practices need to be in compliance with state requirements. Please state those requirements by reference in the Plan.

d) Ground water protection planning should be included in all chemical handling practices in the forest. This would include, but not be limited to, herbicides, pesticides, fertilizers, and degreasing solvents at maintenance shops

e) Activities and procedures that minimize erosion, and surface water runoff also will increase infiltration, allowing for more stable year round stream flows

For further information regarding water quality, contact John Jackson at 229-6035.

VICTOR ATIYEH
GOVERNOR

Department of Land Conservation and Development

1175 COURT STREET N E, SALEM, OREGON 97310-0590 PHONE (503) 378-4926

November 10, 1986

James E. Brown, State Forester
Department of Forestry
2600 State Street
Salem, OR 97310

Dear Jim:

The purpose of this letter is to provide DLCD comments for the state response to the proposed resources plan and draft environmental impact statement for the Ochoco National Forest.

As you know, the statewide goals and acknowledged comprehensive plans outside Oregon's coastal zone do not have any binding effect over federal resource planning activities, like the Forest Service's management plans Nevertheless, DLCD is quite concerned that the Forest Service demonstrates that such plans (and their various alternatives) are developed to be as compatible as possible with the affected communities' acknowledged comprehensive plans.

Our preliminary review reveals that the Ochoco's planning staff has endeavored to produce the proposed resources plan and DEIS with extensive interest group and local involvement. We are pleased that the DEIS on page 172 discusses the general compatibility of the various management alternatives with the acknowledged county comprehensive plans in the area Such information in the DEIS not only serves to strengthen federal-local coordination but hopefully can aid in easier identification of a preferred alternative from the state's perspective

In order to assure that information in the selected alternative and final EIS is as up to date and complete as possible, we suggest that the Ochoco staff request that the affected counties check to make sure that the cited land use

references are correct and accurate This would seem to be in order particularly for Grant County whose plan was recently acknowledged by LCDC. Second, the counties should be consulted by the Ochoco about which city land use plans in their areas, if any, should be reviewed, especially from an economic standpoint

I hope these comments are helpful in preparing Oregon's response to the Forest Service's plan for the Ochoco National Forest. Please feel free to contact Jim Knight of our office if you have any further questions about our letter

Sincerely,

James F. Ross
Director

JFR JBK kj

cc: Crook County Court
Deschutes County Board of Commissioners
Grant County Court
Harney County Court
Jefferson County Court
Wheeler County Court
Brent Lake, DLCD
Jim Knight, DLCD
Bob Brown, ODOF

General File #7-2-3-300

VICTOR ATIYEH
GOVERNOR

Forestry Department

OFFICE OF STATE FORESTER

2600 STATE STREET, SALEM, OREGON 97310 PHONE 378-2560

MEMORANDUM

SUBJECT OCHOCO NATIONAL FOREST DRAFT ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND AND RESOURCE MANAGEMENT PLAN

TO James E. Brown, State Forester

FROM Dave Stere, Director, Forest Resources Planning

DATE November 6, 1986

The Department of Forestry Resources Planning Section and field staff have reviewed the Ochoco National Forest Draft Environmental Impact Statement (DEIS) and Proposed Land and Resource Management Plan (LRMP)

Our review concludes that the Department cannot support implementation of the Forest's Preferred Alternative, "E-departure". Instead, adoption of Alternative "H" is recommended for the following reasons

1. *The Forestry Program for Oregon timber harvest targets for the Ochoco* are met for 40 years without a departure from nondeclining evenflow

2 Riparian conditions are significantly improved while maintaining grazing potential

3 Economic efficiency is maximized

4. Job numbers, personal income, and payments to counties are maintained at satisfactory levels throughout the planning horizon

5 Intensive forest management levels exceed the Forestry Program objective

6 *Department of Fish and Wildlife management objectives for elk are* exceeded for at least the next 20 years

7 Most of the remaining unroaded areas are allocated to prescriptions which allow timber management

8 The Deschutes Canyon-Steelhead Falls area and portions of Lookout Mountain are managed to provide needed semi-primitive, nonmotorized recreation opportunities.

Therefore, the Ochoco National Forest should modify its Final EIS and LRMP by selecting Alternative "H" as the preferred alternative in order to maximize net public benefits

The Department of Forestry's review also compares the Ochoco DEIS and LRMP to the objectives and policies expressed in the Forestry Program for Oregon and identified factual errors and omissions in the documents. A detailed analysis of the Ochoco National Forest Plan is attached. These comments are an integral part of the Department's review and should be considered substantive by the Forest Service

By considering these comments and recommendations, the Forest could further improve the performance of Alternative "H" Particular attention should be given to the Ochoco's economic assumptions and analysis, timber yield tables and salvage program, and big game management strategies.

DHS/DM jp
Attachment

STATE OF OREGON INTEROFFICE MEMO

TO James Brown, State Forester
State Forestry Department

DATE November 10, 1986

FROM Ann Nolan Hanus, State Economist
Office of Economic Analysis

SUBJECT Summary of Findings and Recommendations for the Ochoco National Forest Plan

Overview

I have reviewed the Draft Environmental Impact Statement (DEIS) for the Ochoco National Forest. The Department of Economic Development and the Employment Division have provided their analyses (attached) which have been critical for my response I have discussed the plan with Forest Service planners, industry representatives, members of the Council of Economic Advisors, and local officials

The counties most directly affected by the Ochoco National Forest Plan are Crook, Harney, Jefferson, Wheeler, and Grant These counties, especially Crook, rely heavily on the Forest for their mainstay For example, over 1,600 Crook County workers are directly employed in lumber and wood products, mainly in Prineville The forest products industry in Prineville consists essentially of four lumber mills (Pine Products, Consolidated Pine, Ochoco Lumber, and Prineville Sawmill Company) which employ about 500 people. Two millwork plants (Clear Pine Mouldings and American Forest Products) employ another 920 workers Including several other small operations and logging firms brings the total to 1,620 workers Overall, Crook County is more dependent on timber than the state average·

	Oregon	Crook County
Percentage of workers engaged in		
Manufacturing	19 9%	39 1%
Lumber and Wood	31 9%	98 0%

The 1,640 lumber and wood products employes comprise 36 percent of the total 4,450 employment covered by unemployment insurance. If Forest Service employes were included, the percentage would be raised from 36 to 42 percent Considering the indirect effects from lumber and wood employment, industry and Forest Service payrolls in 1985 amounted to 54 percent of total covered payroll

Local governments also depend upon the Forest for revenues Twenty-five percent of timber receipts are given to counties for schools and roads Crook and Wheeler counties derive thirty to forty percent of their revenues from the Ochoco National Forest timber sale revenues

Lifestyles are tied closely to the Ochoco not only do most people earn their living from it, but they also derive much enjoyment from various forms of recreation. Furthermore, water quality and availability are closely linked to the forest

The Forest Service's preferred Alternative E-departure emphasizes a combination of timber production, roadless recreation, and big game habitat. Timber harvests are scheduled so that first decade volumes remain close to current levels, and then decline over the next 10 to 50 years According to the Forest Service, the departure harvest schedule was designed to maintain local jobs in the short term.

Comments

1 The Forest Service selected Alternative E-departure on the grounds that it would boost the economy in the first decade of the plan Thereafter, the harvest would fall substantially, and the economy would be harmed significantly The long-term cost of the departure cannot be justified by a short-term gain, particularly when it would be so damaging to the region's long-term economic stability

The departure schedule provides for 123 MMBF per year for the first decade, 118 MMBF per year in the second, and 89 MMBF in the subsequent decades The current harvest level is 160 MMBF while the 1975 to 1984 annual average is 134 MMBF The current harvest level is unusually high because loggers are taking advantage of renegotiated prior year contracts The departure schedule would result in a significant number of job and local government revenue losses in decades following the first This would undermine the region's long term economic stability Furthermore, the reduction may come at a time when the demand for Northwest timber is rising if projections are correct that show declines in Canadian and Southern states' timber harvests

The proposed schedule could have an adverse effect on the industry's incentive to make large capital investments necessary to process smaller dimension logs In the future, smaller dimension logs will comprise a much larger share of the timber harvest Industries will need to retool and perhaps modify products The preferred alternative may not provide sufficient economic incentive for industry to make these capital investments since the future timber harvest would decline drastically

2 The Forest Service should correct its estimates of employment effects and clarify the methodology and terminology behind its multipliers The figures for direct and indirect employment imply very low multipliers -- less than two for direct timber jobs This multiplier should be around two to three In addition, the figures used for employment gains due to recreation, wildlife and resource effects appear to be too high For example, in the first decade the plan estimates a loss of 27 "timber, direct" jobs, a loss of only four "timber, indirect" jobs and a gain of 94 "recreation, wildlife and range resource" jobs.

The direct employment impacts in the timber industry may be incorrect if they are based upon historical relationships between mill employment and timber harvest. Gains in labor productivity in recent years have been significant, especially in areas like Harney County where new, more efficient mills began operating in 1982

The Forest Service should re-examine its assumptions about employment shifts between Harney and Crook Counties The assumption that the shift in timber harvest emphasis to the Snow Mountain District will boost Harney County at the expense of Crook County is questionable The Prineville mills already compete successfully for sales on Snow Mountain and will probably continue to do so

3 The Forest Service excluded the impact on Wheeler County entirely. This cannot be justified when the Ochoco comprises 10 percent of Wheeler County's total land area Also, Wheeler is the gateway for tourists, campers and hunters entering the Ochoco Although Wheeler's population is relatively small, it is heavily dependent on the Ochoco for its economic welfare Logging still accounts for 10 percent of its private sector wage and salary employment

4 The changing species mix and availability of old growth Ponderosa Pine will have a major impact on the industries Ponderosa Pine provides, by far, more jobs per million board feet than any other species in the forest The Forest Service should explore harvesting and silvicultural techniques that would increase the harvest of Ponderosa Pine.

5. The Forest Service proposes the reduction of timber full yield acreage Currently, 423,000 acres are managed for full yield Under E-departure, 262,500 acres would be managed at full yield and 232,000 at partial yield (50 to 90 percent) The Forest Service should explain its reasons for this shift and the implications for timber harvesting The land base for timber harvesting has been eroding over the last ten years with consequential negative impacts on timber harvests.

6. The projections for local government revenues from timber sales may be high Currently, the Forest Service assumes that all timber offered for sale will be sold for a projected price This yields a projection of the maximum revenue a county might receive Actual receipts could be lower if all the timber offered for sale is not harvested in the same year A range of probable county receipts should be shown.

7 The Forest Service should address the implications of its shift from uneven aged management to even aged management If uneven aged management was successfully used in the past, why is it no longer

advantageous? While even aged management may result in an increased harvest volume, would the larger trees produced under uneven aged management result in higher valued timber? What is the impact on visual, wildlife, and recreational values?

8 The economic impact of the alternatives for the management of the Ochoco National Forest cannot be fully determined without considering how changes in other Forest plans -- particularly the Malheur - will affect the region For example, Harney County receives twice as much timber from the Malheur National Forest than from the Ochoco If harvests are reduced on the Malheur, competition for timber on other forests would increase Also, recreational opportunities should be considered in the context of total opportunities available from not only the Forest being studied but also from adjacent National Forests and wilderness and other reserved areas

Recommendation

Alternative E-departure should be rejected because it would significantly damage the region's economy in the long term Alternative H should be selected because it maintains a sustained yield timber harvest close to the 1975-1984 harvest level A sustained, predictable harvest level is more likely to benefit the area's economy without the severe disruption that would be caused by Alternative E-departure

Alternative H's present net value is higher than any of the other alternatives except Alternative H-departure Alternative H provides for jobs slightly higher and returns to counties considerably higher than the current level Livestock grazing would be significantly higher (+19 percent) than the present Elk habitat would support 90 percent more than the current population in the first decade, and riparian zone management would be excellent in all areas with high recreational use or potentially high use The tradeoff would be less old growth and roadless recreation Wilderness acreage, however, under Alternative H would not change from the current amount of 36,000 acres

It should be noted that Economic Development Department has recommended Alternative B because of its higher timber sales (137 MMBF per year) They believe that Alternative B would have "the least amount of negative impact on local communities

ANH slf
2327J

cc Jon Yunker
Thomas F Kennedy
Don Steward
Laila Cully
Jeff Hannum

Attachments

Appendix

U.S. Forest Service Methodological Problems

1. Population Projection

The population projection used has little to do with reality. The staff of the national forests are using a population projection of 2.8% annual growth rate for Oregon Oregon's population has been increasing at an average annual rate of 0.7%. Additionally, the use of population to predict recreational land use is questionable.

The Department agrees with the Division of State Parks that a better procedure for projecting recreational land use should project what types of recreational use will be needed and the number of people that will be involved in each type of recreation. This is a more difficult task; however, the results will be much more meaningful.

2. Cost Accounting

Each forest develops its own method for allocating costs. This results in widely varying accounting systems and in turn cause two problems:

- Different forests' costs are not comparable. It would help in reviewing these plans to compare various projected costs. This cannot now be done in a meaningful way.

- Different cost accounting methods are reflected in the answers the computer provides for alternatives. Therefore, part of the difference between proposed forest plans is due to different accounting methods and not to differences in conditions.

3. No public input until the plan has been fully developed.

Currently, the forest staff develops about a dozen alternative actions and runs these alternatives through an input-output model on a computer in Colorado. These computer runs are quite expensive. Therefore, after the Draft Environmental Impact Statement (DEIS) is circulated for review, the forest staff is quite hesitant to make additional computer runs.

On the Wallowa-Whitman DEIS, in particular, the state has requested a new alternative to be devised. The forest staff is very hesitant to comply, not only because of the cost of the computer run, but also if the new run falls outside the range of previous alternatives, additional public hearings would be needed.

To avoid this, each forest staff should circulate their alternatives for comment prior to making the computer runs. This will allow for a cost-effective method of examining a wider range of alternatives.

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GENERAL FILE
7-2-3-300

OREGON STATE DEPARTMENT OF FORESTRY
REVIEW OF THE OCHOCO NATIONAL FOREST'S
DRAFT ENVIRONMENTAL IMPACT STATEMENT AND
PROPOSED LAND AND RESOURCE MANAGEMENT PLAN

The Oregon State Department of Forestry's Resource Planning Section, in cooperation with other Department staff, has reviewed the Ochoco National Forest's Draft Environmental Impact Statement (DEIS) and Proposed Land and Resource Management Plan (LRMP). Our comments focus on four areas of concern. (1) Compatibility of the Ochoco DEIS and LRMP with the basic objectives of the Forestry Program for Oregon (FPFO), (2) Factual errors and omissions in the document, (3) Comparison of the DEIS and LRMP view of the future with the Forestry Program for Oregon, and (4) Preferred alternative recommendations

SUMMARY

The Ochoco DEIS and LRMP documents are well written, comprehensive and informative. The Forest has set a standard that the Department hopes other Oregon National Forests will attempt to match. However, our review has indicated that several important technical problems remain. In addition, the Department does not support the selection of Alternative "E-departure" as the preferred alternative. Instead, adoption of Alternative "H" is recommended. The following comments are the Department of Forestry's recommendations for improving the Ochoco plan when it is issued in final form Each of these comments should be considered as substantive and all should be addressed in the final EIS

COMPATIBILITY OF THE OCHOCO
DEIS AND LRMP WITH THE BASIC OBJECTIVES OF
THE FORESTRY PROGRAM FOR OREGON

Treatment of the Forestry Program for Oregon - (DEIS, page 172) The Department of Forestry appreciates the text devoted to addressing the goals and objectives of state, local and other federal agencies In particular, the Ochoco has provided a good overview of the FPFO. Unfortunately, the Forest has failed to meet the requirements of the May 13, 1986, Regional direction to the Forest on comparing the DEIS alternatives with the basic objectives of the FPFO The DEIS has incorrectly compared the alternatives to the Forestry Program's timber harvest targets alone and has failed to consider the actual objectives which include:

1. To maintain the maximum potential commercial forest land base consistent with other resource use while assuring environmental quality.

2. To identify and implement economically feasible levels of intensive forest management required to achieve cost effective growth and harvest.

3 To maintain community stability, by remaining flexible for increases in future harvest levels that would offset projected shortages.

The May 13, 1986 Regional direction provided specific compatibility standards by which the DEIS alternatives can be compared with these objectives. An example which makes this comparison for the Ochoco alternatives is attached. *This information must appear in the final EIS.*

FACTUAL ERROR AND OMISSIONS IN THE DOCUMENTS

Wilderness Acres - (DEIS, page 42) Figure II-3 incorrectly portrays the number of acres that would be managed for Wilderness under Alternatives "B" and "B-dep". The acreages shown are only one-tenth of the actual amount allocated under these two alternatives.

Old Growth Acres - (DEIS, page 42, 139) The DEIS in Figure II-3 and Table II-3A misrepresents the amount of old growth timber that will be preserved by the different alternatives. For example, Alternative "F" is shown to preserve 17,743 acres old growth Figure IV-6 illustrates that this alternative will actually provide around 57,000 acres of old growth when lands allocated to other management areas that will provide old growth conditions are considered. This same discrepancy occurs in the other alternatives as well.

This example illustrates a larger problem in National Forest planning The *public has not been fully informed about the wildlife, recreation and scenic* values that are currently being produced through land allocations such as Wilderness, RNA's and other management areas which limit or prohibit timber management Timber values that have been lost to these and other management designations are not clearly presented in the plan analysis. Therefore, the public cannot easily determine the actual level of values provided by the National Forest. They also cannot examine tradeoffs that have been made by previous land allocation processes nor trace the continued erosion of the commercial forest land base.

To leave out a discussion of the valuable contributions to recreation, wildlife habitat, watershed protection and other non-market values that accrue to the public from legislative and administrative designation and from management strategies that are not decided through the current planning process is doing the public a great disservice and, in addition, may violate NEPA and NFMA requirements

Change in Jobs and Personal Income - (DEIS, page 46) According to planners on the Ochoco, employment and personal income levels for 1984 were used as the *basis for comparing the changes proposed in the alternatives for these* parameters. Instead of using a single year for this analysis, the Department recommends using the 1976 to 1985 average levels This ten year average results in 2,013 lumber and wood products jobs compared to the 1984 level of 1,950 jobs. Using an average recognizes that the lumber and wood products industry in cyclical and that new technology also changes employment patterns.

LUMBER AND WOOD PRODUCTS EMPLOYMENT IN CROOK & HARNEY COUNTIES
(1976-1985)

1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
2420	2540	2640	2590	1580	1390	1310	1670	1950	2040

Ten Year Average. 2013

Recreation Demand Growth - (DEIS, page 51, App., page B-143, LRMP, page 16) The DEIS text on page 51 states that " .. recreationists on this Forest are predominately local". It also states that the population within the two county Primary Zone of Influence is expected to increase at least 15 percent during the next 20 years This infers an annual growth rate of 0.75 percent per year which matches the most recent statewide projection by the State Economist In contrast, the Appendix on page B-143 states that "Current estimates show the state's population to be increasing at an annual rate of roughly 2 percent" Which population growth estimate was used in calculating the recreation demands shown in Table II-13 of the LRMP? If the Ochoco has used a 2 percent growth trend, the analysis of recreation demand may provide unrealistically high results. The State Economist's most recent population growth projections for this portion of the state or another accepted methodology should be used in this analysis to estimate recreation demand. Regardless of the method used, both the Ochoco's estimate of the growth in recreation demand and the Forest's selected alternative should be consistent with the recreation and population projections of existing local land use plans.

Potential Timber Yield - (DEIS, page 59) The text incorrectly defines potential yields as " .. the total harvest level that could be sustained assuming intensive forest practices on all available acres". A more accurate definition is that potential yield is " .. the optimum perpetual sustained-yield havesting level attainable with intensive forestry on regulated areas considering the productivity of the land, conventional logging technology, standard cultural treatments, and interrelationship with other resouce uses and the environment" (from Ochoco 1979 Timber Management Plan). This latter definition makes "potential yield" equal to "allowable sale quantity" (ASQ). However, the text states that potential yield is equivalent to a maximum timber FORPLAN run and is not comparable to the DEIS alternative ASQ levels. The Department disagrees with this conclusion and urges the Ochoco National Forest to provide additional discussion on the relationship between existing potential yield and the alternative allowable sale quantities in the final EIS

Comparison of Past, Present, and Predicted Timber Outputs - (DEIS, page 60) Table II-8 would be more useful if the planned volume by alternative was given for each of the five decades rather than just the high and low decades Cubic foot comparisons should also be given

Social and Economic Setting - (DEIS, page 64-66) Several points in this discussion must be revised

1. Deschutes County population in 1985 should be 65,300 not 15,300

2. Table III-4 is misleading in that it does not provide total U.S. economic data for comparison. Oregon's per capita income is only 90 percent of the U S average. Therefore, even if the county data shown is near the Oregon average it is still below the national average.

3. What units were used to develop the graphs in Figure III-3? The Department disagrees with the statement that combining government and manufacturing sectors overestimates the importance of timber to the economy. The importance may actually be understated since the greater direct, indirect, and induced personal income created by milling and remanufacturing is not shown. Both here, in DEIS Table VI-2, and in Appendix Table B-V3, comparisons of personal income derived from timber versus other resources should be displayed IMPLAN just totals job numbers and fails to differentiate if they are part-time or full-time. Concentrating on employment numbers rather than personal income levels downplays timber's contribution to the economy, particularly with respect to family-supporting incomes. A more accurate portrayal would show both job numbers and total personal incomes.

Prescribed Fire and Air Quality - (DEIS, page 67) The text makes several references to the contribution of prescribed fire to airshed degradation. The DEIS fails to note that prescribed burning reduces the risk of catastrophic natural and man-caused wildfires which could generate severe and unplanned reductions in visibility. Forest smoke will originate on the Ochoco whether or not prescribed burning occurs. Through the use of smoke management techniques and by employing today's controlled burning methods, the effect of prescribed fires on visibility can be minimized. The Department supports full use of this and other management tools in order to prevent the significantly greater air quality problems and other costs which would result from wildfires in areas of untreated fuel accumulations.

Elk Management Objectives - (DEIS, page 77) The text provides the current and proposed Department of Fish and Wildlife management objectives (MO) for elk and states that these objectives ".. have been used as indicators of demand during the planning process". The DEIS then states on page 175 that "If the Forest selects a habitat management level that varies significantly from ODFW's MO, it is anticipated that ODFW will assess the consequences and readjust the MO if necessary" The latter statement appears to depict the management objective as a measure of supply rather than demand Given this discrepancy, the Department of Fish and Wildlife's management objective seems to be of little value in comparing the merits of the different alternatives The final EIS should clarify the relationship between the Forest plan and the ODFW elk management objective.

Assumptions Concerning Leisure Lifestyles - (DEIS, page 99) This discussion centers on the point that greater recreation opportunities will bring more money into the local economy. However, the DEIS has noted elsewhere that most of the recreation use on the Forest comes from local residents If higher paying timber industry jobs are lost to provide more leisure time opportunities, recreation use could actually decrease as families move to other areas seeking employment. The remaining population would not make up this lost income and local businesses would suffer rather than benefit. Wallowa County provides an example of this scenerio The Ochoco should reevaluate its assumptions on the economic effects of changing recreation supply

Effects of Timber Harvesting on Soils - (DEIS, page 115) While it is true that the intensity of site disturbance is greater with the clearcut harvest system than in selection harvests, the text should also emphasize that the frequency of entry into stands is higher when the selection system is used. Overall, soil damage may be more significant in partial cuts Soil characteristics at the time of entry, the number of entries, and the type and degree of disturbance all determine potential for soil damage The Department supports the mitigation measures outlined on pages 121 and 122 to minimize forest soil damage.

Semi-Primitive Recreation - (DEIS, page 157) A significant amount of the recreation use on the Ochoco National Forest occurs in the form of hunting. Regulated road closures provide opportunities for semi-primitive non-motorized recreation during the hunting season while providing roaded recreation opportunties throughout the rest of the year. Has this source of semi-primitive, non-motorized recreation been considered in the estimates of supply provided by the different alternatives?

Development of Timber Yield - (App., page B-36) It appears that the substantial drop in potential yield from that previously established by the 1979 Ochoco Timber Management Plan is mostly caused by changing managed yield tables. This is similar to the drop in potential levels we and others have experienced in our projections The magnitude of the drop on the Ochoco, however, is greater than expected.

While we agree that the approach taken in building these tables is technically correct, we suggest that you review them to determine where intensive management could further increase timber outputs. For example, setting the PROGNOSIS keyword BAMX for the PIPO habitat type to 121 may be inappropriate. While current, natural stands have not grown to be denser than 121 square feet per acre, there may be opportunities in managed stands to decrease clumpiness and to exceed this selected maximum through pre-commercial thinning and brush control

It appears that opportunities for cost-effectively increasing timber growth through intensive forest management have been lost in these yield tables. Is this because the Ochoco has averaged site-specific stocking levels and plantation performance into one Forest-wide average? Averaging on forests with relatively low productivity such as the Ochoco would seem to take away opportunities to intensively manage high site lands while adding few opportunities to obtain increased growth from low site lands If this is the case, yields should be increased to reflect actual management and growth opportunities. The South Central Oregon/Northern California Variant PROGNOSIS model may be appropriate to reassess the accuracy of the Ochoco managed yield tables for stands similar to those on the Deschutes National Forest

Employment Effects - (App., page B-52) It appears that errors may exist in the documentation of employment effects that could distort the socio-economic analysis of the alternatives. Such distortion could also affect the theoretical performance of the DEIS alternatives. The final EIS must address the following problems and document how any revisions will modify the alternatives

1. The text states that the ninth line of Table B-V-1 informs the reader that 1000 hunting recreation visitor days spent in Harney County will create one hunting job. Line 6 in the same table already tabulates the employment effects of hunting. Does line 9 double count hunting employment effects by assuming that all semi-primitive non-motorized recreation is hunting?

2. Our research shows that the job multiplier coefficient should be closer to 2 than 0.5 Why does the Ochoco use such a small multiplier to estimate indirect and induced employment?

3. If a multiplier of 0.5 has been used, why are the indirect employment effects for Alternative "B" in decade 1 in Crook County almost equal to the direct effects?

4. Table B-V-3 shows no indirect effects in Jefferson County from timber harvesting, but does for recreation, wildlife and range resources. The text also indicates that no income from any of the resources is spent in Deschutes County, the primary shopping hub of Central Oregon. These conclusions appear to be incorrect and should be revised to more accurately portray the economic importance of the Ochoco National Forest.

5 Is the "current situation" harvest level of 127 MMBF the correct basis for determining the employment effects of changing the amount of timber sold? Has the contribution of salvage volume been fully considered? If the purpose is to describe potential job losses, would not the use of the existing potential timber yield of 137 MMBF be more appropriate? Does the species composition of the "current situation" reflect historic average?

Harvest Dispersion Constraints - (App., page B-60, LRMP page H-1) Page B-60 states that the watershed harvest dispersion constraints will be between 17 percent and 23 percent. On page H-1 the range of dispersion constraints is given as 25 percent to 35 percent. Which set of figures is correct? What rational supports these very restrictive Ochoco harvest dispersion constraints when the Deschutes National Forest satisfied this minimum management requirement (MMR) with a 58 percent constraint?

Wildlife MMR Constraints - (App , page B-61) The final EIS should include a table similar to the August 8, 1984 Wildlife MMR Matrix produced by the Region. This table provides needed information on the number on habitats being provided by the Forest for each indicator species, the acres of suitable land involved, the effect of these allocations on timber production and other useful details. Such data is critical in determining if the Ochoco MMR constraints are consistent with Regional guidelines and that the constraints are indeed truely minimum requirements

Elk Numbers - (App., page B-145) Table B-VIII-10 presents only the projected elk habitat capability in Decade 5. The document fails to point out that most of the alternatives will support elk numbers above the proposed ODFW management objective for at least 30 years, well beyond the life of this plan. As an example, Alternative "H" has an elk habitat capability in Decade 2 which is 2 6 times greater than the current management objective and 1 2 times greater than the proposed objective. The Forest plan should emphasize the irretrievable commitment of resources such as elk habitat rather than citing long-term projections that future planning decisions may alter.

Big Game Thermal Cover - (LRMP, page 1) The plan proposes maintaining at least 40 to 50 percent of the land base in big game ranges in thermal cover In contrast, research recommends 40 percent of the range in thermal and hiding cover as being optimum. Of that 40 percent, 20-30 percent should be hiding cover, and 10-20 percent in thermal cover in order to achieve optimum conditions Why is the Ochoco recommending less than optimal levels of hiding cover and forage areas on big game ranges? Without adequate forage areas, the target population cannot be maintained.

COMPARISON OF THE DEIS AND LRMP VIEW OF THE FUTURE WITH THE FORESTRY PROGRAM FOR OREGON

Demand for Ochoco Timber - (DEIS, page 5, App , B-41) The text on page 5 of the DEIS states that a lack of a " . suitable timber supply from the Ochoco has been protrayed (sic) as causing higher stumpage prices ..." and that "higher volumes of timber sold from the Ochoco could be processed locally, possibly leading to lower stumpage prices". These statements combined with the fact that much of the ponderosa pine processed in Crook County is transported from outside the area, conflict with discussion in the Appendix which assumes a horizontal demand curve for Ochoco timber.

The DEIS also has failed to fully address the changing timber supply situation in Oregon Inventories on private industry lands are falling and ponderosa pine availability on all ownerships is decreasing In light of these trends, it is unrealistic to assume that the Ochoco National Forest faces a horizontal demand curve for timber and that the number of jobs, personal income, and payments to counties will not be affected by economic influences outside the National Forest boundaries. The economic analysis for the DEIS should take into account the dynamic social and economic environment in which the Forest operates

The Department disagrees with the assumption that the Forest's activities have no measurable effect outside the "zone of influence". For example, Oregon's metropolitan economy, through such industries as banking, insurance, and heavy machinery, is indirectly dependent on timber and other resources from all the Region's National Forests This large-scale economic influence of the Ochoco should be addressed.

Ponderosa Pine Volume - (DEIS, page 59) The text states that the current timber inventory shows 67 percent of the total volume on the Forest is ponderosa pine and that the ponderosa pine harvest in all alternatives will be within 62 to 72 percent of the total harvest volume This claim is contradicted by information received from the Ochoco planning team. The latter shows the proportion of ponderosa pine varying from a high of 80 percent in decade one of Alternative "A" to a low of 55 percent in decade three of Alternative "E". Maintaining a reasonably constant supply of ponderosa pine to milling and remanufacturing plants is critical to the central Oregon economy. Harvest plans of the alternatives should not propose large changes in species mixes, especially reductions in the percentages of ponderosa pine offered.

Insects and Disease - (DEIS, page 67, 104) The final EIS should provide more detail on how the different alternatives will affect the potential for future insect and disease problems. Specifically, the Forest should address how future mountain pine beetle outbreaks and possible western spruce budworm problems will be prevented or promoted by the alternatives.

The Department believes the ability to prevent future insect outbreaks is deperdent upon the timber management strategy pursued Alternatives which increase the number of acres that are not managed to increase the health and vigor of the timber resource are more likely to result in future insect epidemics. The Department of Forestry supports utilization of an integrated pest management system and intensive forest management practices in all alternatives.

Suitable Forest Land Base - (DEIS, page 89) There appear to be two problems with the suitability analysis shown in Table III-25. Under item IV, inaccurate numbers have been used in the calculation of tentatively suitable land More importantly, there are several undocumented changes from the analysis presented on page 278 of the Ochoco AMS document. As a result, the DEIS shows a forested land base which is 9,485 acres less than the AMS and a suitable land base which is 12,093 acres less than the AMS indicated. What is the justification for these changes?

Big Game Management - (DEIS, page 140) Questions on big game management unanswered by DEIS include:

1. Since some winter range areas receive heavier use than others, would not more intensive management of these preferred ranges and less on the remainder be more desireable and promote both big game and timber with lower overall management costs and higher overall benefits?

2. More challenging hunting opportunties can also be achieved through road closures, limiting the numbers of hunters, and restricting the harvest to certain types of game (example - Bulls with three or more antler points). To what degree would increased use of these other methods of regulation reduce or eliminate the need to limit timber production?

3. Elk numbers in central Oregon could increase to the point where the availability of winter range would be the limiting factor Conflicts with other uses on the privately owned, natural winter range would increase. By continuing to optimize the available summer and winter elk range on the Forest, the Ochoco may be managing its land for elk numbers that cannot be supported by the total habitat In light of the other resource uses on the Forest, at what point will the marginal benefits of additional elk be exceeded by the marginal cost of providing the habitat?

4. What costs and property damage may be incurred by adjacent landowners through elk migration and hunting recreation? How will the Forest's actions affect this problem? How are these costs factored into the Plan's analysis?

Road Management - (DEIS, page 166) The Department supports the efforts of the Ochoco to reduce the costs of road construction and to close unneeded roads either seasonally or permanently to increase effective wildlife habitat. Cooperative road closure programs during elk season have proven to be very successful. Benefits of regulated road closures include

1. Reduced animal harassment through improved hiding cover.

2. More opportunities for high-quality, semi-primative, non-motorized hunting experiences.

3 Reduced conflicts between timber and wildlife management

4. Reduced road maintenance costs by eliminating hunter traffic during wet fall months.

The final EIS should emphasize that it is the use of roads not the roads themselves which affects wildlife habitat. The Ochoco is moving in the right direction by regulating the use of roads while still allowing access for periodic, cost-effective, timber management activities.

Unroaded Areas - (App C) It is inappropriate that the Forest's preferred alternative retains 28,441 acres or 48 percent of the remaining unroaded areas in an undeveloped state. The Oregon Wilderness Act of 1984 states that unroaded areas not designated as wilderness should be managed for multiple-use and that management for future wilderness consideration is not necessary In keeping with the intent of this law, the Department of Forestry recommends that unroaded lands which support productive forests be returned to the suitable land base and that the timber volume be included in the regulated timber harvest schedule.

Fire Protection - (App., page D-9) The Department of Forestry supports the Forest's policy of applying agressive suppression action to wildfires that threaten life, private property, public safety, improvements, or investments. However, the DEIS and LRMP should more clearly explain what criteria will determine when a "threat" exists and the "appropriate" suppression response that will follow Unplanned ignitions should be used as prescribed fires only if compliance with the Oregon Smoke Management Plan can be assured Coordination of protection planning and suppression efforts with other protection agencies, including this Department, should be included as a part of these guidelines.

Minimum Stocking Levels (App., page D-20) The Ochoco National Forest is proposing minimum stocking levels of between 50 to 75 trees per acre, depending on site This level of stocking is below the minimum stocking level permitted under the Oregon Forest Practices Act. Since the Forest Service has agreed to meet or exceed the Forest Practices Act requirements, the proposed minimum stocking levels are unacceptable These standards must be revised to satisfy the requirements of the Act which include establishing at least 100 seedlings or saplings per acre, well distributed over the operation area, within six-years. Refer to OAR 629-24-401 and 402 for details on this requirement. The final EIS should document what effect this higher minimum level would have on future timber yields, big game cover, and other resource outputs

Regeneration Harvests - (App D-30) The timber resource practice standards and guidelines for the General Forest Management area and other prescriptions include the statement that regeneration harvests will occur at culmination of mean annual increment (CMAI). Is it necessary to extend regeneration harvests past 95 percent of CMAI? Whenever shorter rotation lengths will not conflict with the goals of the management area prescription or lower the present net value, 95 percent of CMAI should be used At a minimum, it should be included in the criteria for the General Forest Management area.

Harvest Cutting Methods (App., F) - The Department of Forestry supports the flexible, site specific approach to the selection of harvest cutting methods as required by the Regional Guide. The Ochoco is encouraged to maintain this flexibility in the Forest plan. When determining the harvest cutting method, economic benefits to the Forest and the timber purchaser should be considered as well as logging feasibility, stand characteristics, silvicultural response, and the effect on other resources and their uses. In addition, uneven-aged management should be considered to maintain timber yield in those areas where clearcutting is limited or prohibited to accomodate other resource uses The Forest should work to improve knowledge of uneven-aged management applications in eastern Oregon forests through silvicultural research, refined yield tables, and economic analysis

Research - (LRMP, page 21) The Forestry Program for Oregon encourages research to improve forest productivity, the economics of intensive management practices, and to identify the habitat needs of old-growth preferring wildlife. Therefore, the Department supports the research program outlined by the Forest. In addition to the research needs identified by the Ochoco, we believe more research is needed to

1 Develop new technology to return some of the 2,560 acres removed from the suitable land base for regeneration difficulty to timber management status.

2 Improve knowledge of elk/cattle competition

3. Gain better silvicultural knowledge on understory management and uneven-aged management.

Timber Salvage Program - (LRMP, page 59) The Ochoco National Forest has an opportunity to improve its timber salvage program by more aggressively harvesting scattered, overmature ponderosa pine These large, valuable trees are often lost to insects and disease before they can be included within a planned harvest unit Forest industry estimates that 20 MMBF of high quality, high value timber could be recovered per year. Eighty percent of this salvage work could be conducted on areas suited to tractor logging As a result of increased salvage, forest industry would obtain the larger ponderosa pine desired to supply its mills and remanufacturing plants, communities would enjoy increased employment and personal income, and the Forest Service would receive higher stumpage revenues. The Forest would also enjoy a higher net timber growth rate through reduced future mortality Meanwhile, acceptable levels of old-growth and snags would be retained through management area allocations and MMRs. The final EIS should address this recommendation.

Monitoring - (LRMP, page 99) The Ochoco has provided a very good framework for its monitoring and evaluation program The following changes would improve this very important part of the management plan·

1. Change the reporting period for land suitability from 10 to 5 years. The objective for this category should be revised to include the potential for returning lands incorrectly classified as unsuitable to the suitable land base.

2 As new information becomes available, minimum management requirements should be revised to insure that neither under-protection or over-protection occurs.

3. The variability threshold for payments to counties should be more specific than "an unexpected trend up or down". A variability threshold of ± 10 percent is recommended

4. Personal income should be added as an activity to be monitored. Monitoring frequency should be annual with a ± 10 percent variability threshold.

PREFERRED ALTERNATIVE RECOMMENDATION

The Department of Forestry requests that the Ochoco National Forest select Alternative "H" rather than Alternative "E-departure" when the Forest plan is issued in final form. Alternative "H" provides a more nearly optimum mix of resource outputs which addresses the issues identified by the public, achieves a higher level of long-term net public benefits, and more closely meets the objectives of the Forestry Program for Oregon.

Specifically, the Department supports Alternative "H" for the following reasons

1 The Forestry Program for Oregon timber harvest targets for the Ochoco are met for 40 years without a departure from non-declining even flow

2 Riparian conditions are significantly improved while maintaining grazing potential.

3 Economic efficiency is maximized

4. Job numbers, personal income, and payments to counties are maintained at satisfactory levels throughout the planning horizon.

5 Intensive forest management levels exceed the Forestry Program objectives.

6 Department of Fish and Wildlife management objectives for elk are exceeded for at least the next 20 years

7 Most of the remaining unroaded areas are allocated to prescriptions which allow timber management.

8. The Deschutes Canyon - Steelhead Falls area and portions of Lookout Mountain are managed to provide needed semi-primitive, non-motorized recreation opportunities

Alternative "H" could be futher improved through adoption of the Department of Forestry's other recommendations in this review. The Ochoco National Forest is encouraged to carefully consider this course of action

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Attachments
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OCHOCO NATIONAL FOREST

RELATIONSHIP OF THE PROPOSED ACTION AND ALTERNATIVES
TO THE BASIC OBJECTIVES OF THE FORESTRY PROGRAM FOR OREGON

DM 10/86

Basic Objective	Proposed Action and Alternatives: Level 1 1/	Level 2 2/	Level 3 3/	Discussion
To maintain the maximum potential commercial forest land base consistent with other resource uses while assuring environmental quality	A,B,Bdep,	A,B,Bdep,Edep, F,G,H,Hdep	C,D,E	Congressional Acts and Executive Orders (see Purpose and Need section) and State law (Oregon Forest Practices Act) mandate management guidelines for certain lands. Incorporated throughout the planning process, these guidelines have served to define the suitable land for timber production that is compatible with the objective
To identify and implement economically feasible levels or intensive forest management required to achieve cost effective growth and harvest	A,B,Bdep, H,Hdep	Edep,F,G	C,D,E	A full range of intensive timber management practices (refer to Management Strategies and Management Area Direction, this chapter) is utilized for timber production New and improved practices would be implemented consistent with technological advances
To maintain community stability by remaining flexible for increases in future harvest levels that would offset projected shortages	A,B,Bdep, Hdep	Edep,F,G,H	C,D,E	Deviation from even-flow sustained yield management would be implemented consistent with NFMA regulations and Forest Plan direction This involves the harvest of available surplus old-growth inventory to offset projected shortages.

1/ Meets share of FPFO target level and is compatible with basic objective

2/ Is compatible with the basic objective but does not meet target level or meets the target level but is not compatible with the basic objective

3/ Does not meet target level and is not compatible with the basic objective.

NOTE *Current direction parameters for jobs and personal income are slightly above recent levels*

Number of decades that alternatives meet FPFO targets B-5,G,H-4,A,Bdep,Hdep-3,Edep-2,F-1,C,D,E-0

STATE OF OREGON INTEROFFICE MEMO

TO Ann Hanus, State Economist

DATE October 29, 1986

FROM Thomas F. Kennedy, Director
Economic Development Department

SUBJECT Ochoco National Forest Plan Review

RECEIVED
OCT 2 1986
EXECUTIVE DEPARTMENT

This memo is composed of the following sections

I. Background

II. Mills identified as primary and secondary users of timber from Ochoco National Forest

III. Components of the U.S. Forest Service Plan

IV. Economic Development Department's Analysis of U.S. Forest Service Plan

V. Economic Development Department Recommendations

VI. Appendix General Questions Regarding Forest Service Methodology

I. Background

The land administered by the Ochoco National Forest and Crooked River Grassland occupies 955,100 acres within Crook, Harney, Grant, Jefferson and Wheeler Counties of Oregon. The area's economy is highly dependent on forest-related industry, agriculture and tourism.

In Crook and Harney Counties, over 80 percent of the forest land is in public ownership, most of it is administered by the U.S. Forest Service.

Maximum mill capacity in Crook and Harney Counties is approximately 385 million board feet annually. 1983-84 estimates indicate that approximately 160 million board feet (42 percent of maximum capacity) is being milled annually in these two counties. Undoubtedly, timber availability from the Ochoco National Forest affects stumpage prices as well as local economic well-being

All five counties in the affected area of the Ochoco National Forest and Crooked River Grassland are heavily dependent on payments from the Forest Service for their operating budgets. Thirty to forty percent of Crook and Wheeler County revenues are derived from this source. Grant, Harney and Jefferson Counties receive payments representing 15 percent of their revenue. The timber industry and related government agencies account for approximately half of the area's economic base.

II Mills Dependent on Ochoco Timber

Primary Purchasers of Timber from the Ochoco National Forest

Consolidated Pine, Inc.	Prineville
Ochoco Lumber Co.	Prineville
Prineville Sawmill	Prineville
Pine Products Corp	Prineville
Snow Mountain Pine Co.	Hines
DAW Forest Products Co.	Bend

Secondary Users of Raw Material from Ochoco National Forest

Clear ~~Cedar~~ Pine Corporation	Prineville
American Forest Products Co.	Prineville
D & E Wood Products, Inc	Prineville
Pioneer Cut Stock Co.	Prineville
Woodmark ~~Woodwork~~ Corporation	Hines
Frenchglen Millwork Co.	Hines

III. Components of Alternative E-Departure are·

1. Reduces the allowable cut for the first ten years of the plan by 9 million board feet (MMBF). The 1975-84 sales volume was 134 MMBF per year. Alternative E-Departure would provide for 123 MMBF per year for the first ten years of the plan.

2 After the first decade the allowable cut would be reduced to 118 MMBF per year for the second decade. For the third decade the allowable cut would be 89 MMBF per year.

3 After the first decade the species mix will change. Ponderosa pine harvest will decline as a percentage of total harvest and the diameter of the ponderosa pine harvested will be significantly smaller The species mix will increasingly consist of more Douglas fir, western larch and white fir

4. Alternative E-Departure forecasts increased employment in the Ochoco region as a direct result of the departure timber schedule:

Table 1. Projected Employment Changes
Resulting from Alternative E-Departure

Employment	Crook County	Harney County
Timber, Direct	-50	+23
Timber, Indirect	-19	+15
Recreation	+59	+22
Total Employment	-10	+60

Source Ochoco Draft Environmental Impact Statement, p. 97.

IV. Analysis of the U S Forest Service Plan

1. The Economic Development Department does not expect the employment increases projected by the Forest Service to actually happen. A reduction in the allowable cut of 9 MMBF per year will likely further reduce employment.

The implicit multiplier used in the above table is extremely low. In timber-dependent communities, a direct timber job usually results in two to three secondary jobs. The above job implies that only a fraction of a job results for each direct timber job. A more reasonable (and conservative) multiplier would assume at least two indirect jobs for each direct job. this means that for the 50 jobs to be lost in direct timber production in Crook County, there is a potential loss of at least 100 indirect jobs.

Also, there is no reasonable explanation in the plan for how 59 recreation jobs will be created in Crook County or how 22 jobs will be created in Harney County.

2. The potential reductions in the harvest are a real concern. The U.S. Forest Service is predicting a reduction in demand for timber after the first decade of the plan. This reduction in demand will result from a decline in new housing demand in the U.S. after 1995 By 1995, the baby boom generation will have, as a group, completed the purchase of new houses.

The Economic Development Department disagrees with this analysis, for the following reasons·

While U.S. demand will decline, so will the supply of timber from the South and from British Columbia as well as areas of the Northwest.

Additionally, the demand for lumber from Pacific Rim nations is just now beginning. As incomes in these nations increase, the demand for lumber for building is expected to increase.

The Economic Development Department, State Forestry Department, and the forest products industry are working to develop these markets. This increased demand, coupled with declining supplies elsewhere, may well take up the potential slack in the U.S. domestic demand. So, it is to Oregon's advantage to make sure that the Forest Service maintains the highest reasonable allowable cut.

3. As the species mix changes and the diameter of the timber decreases, the mills in the area will face increasing costs. They will have to retool to be able to process small trees, find a timber supply from outside the area, or close

This will require capital investment for retooling and the impact on jobs is undefined, i.e., increased productivity may result in job loss.

4. County Revenue Projections

The projections for county revenues from timber sales are not realistic. Currently, the projections assume that all the timber offered for sale will be sold for a projected price. This yields a projection of the maximum revenue a county might receive. Actual county receipts will be less. Based on past trends in timber sales, a range of possible county receipts should be provided.

V. Economic Development Recommendations

1. The Economic Development Department rejects Alternative E-Departure because it predicts a decline in jobs due to timber harvest reductions from the current 160 MMBF per year of actual sales in 1986, to 123 MMBF per year for the first decade and an even worse decline to 118 MMBF per year and 89 MMBF per year for the decades that follow.

2. Table IV-30 of the EIS indicate that the Plan proposes the reduction of acreage in full yield from the current (1979 Timber Management Plan) figure of 423,000 acres to 262,500 acres. this means that less than a third of the land in the Ochoco forest is proposed for full yield (91-99%) management. Approximately half the forest is currently being managed for full yield.

We do not support reducing the acreage proposed for full yield management.

3. The Economic Development Department recommends the adoption of Alternative B with some modifications.

Alternative B has an Allowable Sale Quantity (ASQ) of 137 MMBF per year, which is the current potential yield for the next two decades. (This compares to a reduction of 123 MMBF per year, 118 MMBF per year and 89 MMBF per year for the three decades in the Preferred Alternative.)

Alternative B is the alternative with the least amount of negative impact on the local communities. It also has more elk population in the first decade than the preferred alternative. The loss of some elk population in the third decade could be avoided if the U.S. Forest Service was to have more road closures (with gates, e.g) to mitigate elk habitat disruption Additionally, increased watershed management would improve elk habitat.

Alternative B maintains old growth forest at 32,000 acres compared to 50,000 in E-Departure. This is the price for maintaining a strong local economic job base.

While Alternative B would maintain Lookout Mountain as "General Forest" (GF) category, we would recommend that Lookout Mountain and Silver Creek be maintained as semi-primitive non-motorized (SPNM) category, as proposed in Alternative E-Departure

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State of Oregon
EMPLOYMENT DIVISION
Department of Human Resources

RECEIVED
1 1986
Executive Department

TO Jeff Hannum, State
Address Labor Economist

Date: October 27, 1986

FROM M C. Mahan
Address Labor Economist

No. 0090A

Subject Comment on Proposed Ochoco NF Land and Resource Management Plan

1 Economic dependency of the local area on the Ochoco NF. Since over 80% of commercial timber lands lie within National Forest boundaries in Crook County, mills located in Prineville are largely dependent on publicly owned timber The forest products industry in Prineville consists essentially of four lumber mills (Pine Products, Consolidated Pine, Ochoco Lumber, Prineville Sawmill Co) currently employing about 500 employes, and two millwork plants (Clear Pine Mouldings and American Forest Products) currently employing some 920 employes. Several small operations and logging firms bring total current employment to 1620

The 1620 lumber and wood products employes comprise 36% of the total 4450 employment covered by unemployment insurance Adding 280 Forest Service employes brings this figure to 42%, or 1900 Assumming a multiplier of 2 0, the county's covered employment not attributable to the lumber and wood products industry would be only 650 Also, industry and Forest Service payrolls in 1985 comprised 54% of the total covered payroll Essentially, without the presence of the Ochoco NF Crook County would more closely resemble Gilliam County, economically dependent on agriculture and the Les Schwab Tire Co.

2 Comparison of the Crook County economy to that of the state as a whole
The economy of Crook County is narrowly concentrated in three sectors The manufacture of lumber and wood products, government; wholesale trade Statewide, the percentage of covered employment engaged in manufacturing in 1985 was 19 9% compared to 39 1% in Crook. In Crook, 98% of manufacturing employment was in lumber and wood products compared to 31.9% statewide. Employment in wholesale trade was 8 3% of the total in Crook, 6 6% statewide solely due to the presence of the Les Schwab Tire Co , whose headquarters, warehousing and recapping operation are located in Prineville. Government employment was 19 5% in Crook compared to 18.1% statewide due to the presence of the Ochoco NF headquarters and regional offices of BLM and Oregon State Forestry in Prineville

3. Assessment of the economic analysis and data used in the Ochoco DEIS.
Overall, the Plan appears to be a reasonable compromise responding to the often competing demands placed upon the resources of the Ochoco NF, ranging from recreation and wildlife to timber supplies and grazing The economic analysis appears reasonable in its basic assumptions and input data. However, the computer generated conclusions regarding impacts of the selected alternative (E Departure) on employment are questionable First, the assumption that the shift in timber harvest emphasis to the Snow Mountain District during the first decade of implementation will boost industry employment in Harney County at the expense of that in Crook County is highly dubious. The Prineville mills already compete successfully for sales on Snow Mountain and will almost certainly continue to do so Thus, analysis of Plan impacts on employment should be limited to the overall portion of Table B-V-3 (attached) The assumptions regarding direct effects appear reasonable assuming static conditions are maintained during the decade in the local wood products industry (No new plants, but machinery improvements in existing mills which tend to reduce manpower needs)

However, over the past decade in Central Oregon losses in basic lumber production have more than been offset by gains in remanufacturing Although the Prineville mills are presently basically large old growth Ponderosa processors, given the inevitable change in future timber harvest characteristics implicit in the Plan, it is highly likely that adaptations to more efficiently process smaller logs and new plant(s) for chip or fiber based products will occur. If so, this could offset employment losses, or even produce an overall gain However, the Plan proposes to sustain the old growth timber harvest during the first decade of Plan implementation at the expense of harvest levels in subsequent decades in terms of both mmbf and mmcf (See attached Table II-8) Without the Departure, while mmbf would decline as tree dimensions shrank, mmcf would be unchanged (Table IV-4 attached) This falloff in mmcf might lessen the prospects for chip or fiber based manufacturing Sacrificing long term harvest levels for short term gains should be carefully considered in the light of local preferences

Assuming a multiplier of about 2 0, the indirect employment effects seem very conservative, unless they are the net of combined direct and recreation effects Gains stemming from recreation enhancement appear somewhat optomistic since this activity is highly summer oriented on the Ochoco Also, recreation is heavily oriented towards camping, with local expenditures largely limited to the purchase of fuels and supplies Even if correct, jobs created would be of a highly seasonal nature, averaging perhaps $6-8,000 per year, less than half that of jobs in lumber and wood products This impact is

reflected in the low overall net income gain (+$270,000) given in the overall effects table, despite a net creation of 63 jobs over the first decade

In sum, assuming the almost certain adjustment of the Prineville mills to the shift in harvest emphasis to the Snow Mountain District, mill employment in Crook County will remain relatively stable, except for the gradual ongoing decline resulting from technological change, over the first decade of Alternative E Departure implementation Subsequent employment changes will depend on whether or not plants capable of utilizing changing harvest characteristics are built, with the near term boost in timber harvest at the expense of long term harvest volume possibly hindering this development if the Departure varient of Alternative E is adopted.

4 Economic impact of the preferred alternative on the local area and State

In evaluating both the Deschutes and Ochoco NF DEIS there is a growing awareness that the most basic question regarding the management of Ponderosa pine dominated forests has been inadequately addressed Past harvesting policy appears to have stressed uneven aged management The new plans stress even aged management, with limited analysis of the comparative advantages of the two systems. This omission leaves unanswered a number of questions Among them If uneven aged management was successfully used in the past, why is it no longer advantageous? While even aged management may result in an increased harvest volume, would not the larger trees produced under uneven aged management be of greater value? What about the capital costs incurred by area mills as they are forced to adapt to the processing of smaller, lower value logs? Would not the complexity of the proposed Plans and their implied high management costs be greatly reduced under uneven aged management as almost the entire Forest could be managed for timber production since harvesting of any given tract would only occur on a 30 or 40 year rotational basis and natural regeneration would occur to a much larger extent? Would not adoption of even aged management greatly alter the appearance of much of the Forest in a detrimental manner?...The retention of uneven aged management on those areas most subject to the public view would certainly seem to be a tacit admission on the part of planners of this concern Would not species variation be reduced by even aged management with its emphasis on the generation of a single plant species, Ponderosa pine? Why, under natural conditions, do pine stands usually assume an uneven growth pattern? Have public and timber industry views and concerns regarding such a drastic revision of Forest management policy been solicited? Without due consideration of this most basic forest management concern, the validity of any Plan issued in the Ponderosa pine region must be seriously questioned.

Given the sustained yield of old growth Ponderosa pine provided over the next decade under the Preferred Alternative, E Departure, it is highly likely that all Prineville mills will be able remain in operation, although continuing to experience the slow erosion of employment resulting from technological improvements In the subsequent decade it appears inevitable that reduced harvest levels will force the closure of at least one mill, with the loss of roughly 100 mill and logging employes, while remaining mills will have to adapt to allow for the processing of smaller dimension logs However, part or all of this decline could be offset if the growing volume of material unsuitable for lumber encourages the construction of a plant for chip or fiber based products The impact of the long term reduction in Ponderosa pine lumber production locally on millwork operations is unclear since at present they obtain well over 50% of their lumber requirements from nonlocal sources

The changing character of the timber harvest in coming decades, with its growing volume of small logs ill suited to lumber production, could well have an impact beyond those communities dependent on the forest products industry. It seems likely that in many cases, for reasons of insufficient volume or lack of capital in a given locality, new plants capable of utilizing this material will tend to be built in centralized locations Thus, some communities may well benefit from these changes in employment terms, while others will experience significant declines This development is already underway, with some areas experiencing declines as a result of the decline in sawmill employment of the past few years, while others have expanded remanufacturing operations to replace these losses The message is clear at both the state and local level If present employment totals in the forest products industry are to be maintained, the capital investment needed for new or expanded remanufacturing plants must be attracted

TABLE B V 2

EFFECTS OF THE ALTERNATIVES ON EMPLOYMENT AND INCOME (FIRST DECADE)

	A	B	B-DEP	C	D	E	E-DEP	F	G	H	H-DEP
CROOK COUNTY											
Employment											
Timber, Direct Effects	-48	+31	+79	+277	-216	-124	-50	-81	-49	-33	+74
Timber, Indirect Effects	-16	+29	+48	+141	-109	-59	-19	-38	-19	-7	+55
Recreation, Wildlife & Range Resource Effects	+10	-8	-6	+54	+31	+55	+59	+17	+16	+24	+32
Total Effect	-54	+52	+121	-364	-294	-128	-10	-102	-52	-16	+161
Total Income Change (Thousand $) Pattern of Change	-910 Wood Product Decline	+1,129 Timber Caused Increase	+2,456 Timber Caused Increase	-5,975 Overall Decline	-4,657 Overall Decline	-2,387 Mixed Effects	-551 Mixed Effects	-1,627 Wood Products Decline	-798 Mixed Effects	-281 Minor Effects	+2,472 Overall Increase
HARNEY COUNTY											
Employment											
Timber, Direct Effects	+60	+26	+9	-12	-16	+18	+23	+11	+21	+30	+33
Timber, Indirect Effects	+39	+19	+11	-14	-13	+10	+15	+8	+15	+22	+27
Recreation, Wildlife & Range Resource Effects	+4	-5	-6	+22	+12	+22	+22	+5	+6	+8	+7
Total Effect	+103	+40	+14	-4	-17	+50	+60	+24	+42	+60	+67
Total Income Change (Thousand $) Pattern of Change	+1,371 Timber Caused Increase	+623 Timber Caused Increase	+279 Timber Caused Increase	-104 Mixed Effects	-299 Mixed Effects	+561 Overall Increase	+706 Overall Increase	+286 Timber Caused Increase	+552 Timber Caused Increase	+800 Timber Caused Increase	+868 Overall Increase
OVERALL (CROOK, HARNEY, AND JEFFERSON COUNTIES)											
Employment											
Timber, Direct Effects	+12	+57	+88	-289	-232	-106	-27	-70	-28	-3	+107
Timber, Indirect Effects	+23	+48	+59	-155	-122	-49	-4	-30	-4	+15	+62
Recreation, Wildlife & Range Resource Effects	+15	-18	-17	+89	+51	+90	+94	+26	+26	+36	+43
Total Effect	+50	+87	+130	-355	-303	-65	+63	-74	-6	+48	+232
Total Income Change (Thousand $) Pattern of Change	+477 Timber Caused Increase	+1,719 Timber Caused Increase	+2,702 Timber Caused Increase	-6,043 Wood Product Decline	-4,875 Wood Product Decline	-1,709 Mixed Effects	+270 Mixed Effects	-1,307 Wood Product Decline	-206 Minor Effects	+561 Minor Effects	+3,382 Overall Increase

TABLE B V 3

EFFECTS OF THE ALTERNATIVES ON EMPLOYMENT AND INCOME (SECOND DECADE)

	A	B	B-DEP	C	D	E	E-DEP	F	G	H	H-DEP
CROOK COUNTY											
Employment											
Timber, Direct Effects	-75	+36	+21	-275	-205	-124	-84	-93	-33	-33	+3
Timber, Indirect Effects	-16	+60	+39	-117	-80	-33	-10	-18	+15	+22	+45
Recreation, Wildlife & Range Resource Effects	+10	+2	+2-	+83	+28	+75	+75	+37	+7	+10	+20
Total Effect	-81	+98	+62	-309	-258	-82	-19	-74	-11	-1	+68
Total Income Change (Thousand $)	-1,127 Wood Product Decline	+1,804 Timber Caused Increase	+1,193 Timber Caused Increase	-5,365 Overall Decline	-4,105 Overall Decline	-1,732 Mixed Effects	-779 Mixed Effects	-1,371 Mixed Effects	-98 Mixed Effects	+81 Minor Effects	+1,152 Overall Increase
HARNEY COUNTY											
Employment											
Timber, Direct Effects	-23	+20	+35	-5	-2	0	+17	+27	+7	+29	+38
Timber, Indirect Effects	-12	+25	+34	-3	+2	+5	+16	+26	+11	+27	+36
Recreation, Wildlife & Range Resource Effects	+4	-3	-2	+33	+11	+28	+29	+12	+2	+2	+5
Total Effect	-31	+42	+67	+25	+11	+33	+62	+65	+20	+58	+79
Total Income Change (Thousand $) Pattern of Change	-881 Wood Product Decline	+680 Timber Caused Increase	+927 Timber Caused Increase	+149 Mixed Effects	+100 Minor Effects	+308 Mixed Effects	+693 Overall Increase	+806 Timber Caused Increase	-261 Minor Effects	+602 Timber Caused Increase	+1,108 Timber Caused Increase
OVERALL (CROOK, HARNEY, AND JEFFERSON COUNTIES)											
Employment											
Timber, Direct Effects	-98	+56	+56	-280	-208	-124	-67	-66	-26	-8	+41
Timber, Indirect Effects	-28	+35	+73	-120	-78	-28	+6	+8	+26	+49	+81
Recreation, Wildlife, & Range Resource Effects	+16	-5	-3	+135	+46	+120	+121	+57	+11	+13	+25
Total Income Change (Thousand $) Pattern of Change	-110 -1,548 Wood Product Decline	+136 +2,423 Timber Caused Increase	+126 +2,147 Timber Caused Increase	-265 -5,051 Wood Product Decline	-240 -3,925 Wood Product Decline	-32 -1,274 Mixed Effects	+60 +63 Mixed Effects	-1 -51 Mixed Effects	+11 +193 Minor Effects	+58 +908 Timber Caused Increase	+148 +2,281 Overall Increase

Table II 8 COMPARISON PAST, PRESENT AND PREDICTED TIMBER OUTPUTS 1/

TIMBER OUTPUT COMPONENT	ACTUAL 1975-85 Annual Ave. Sold	ACTUAL 1975-85 Annual Ave. Cut	EXISTING 1990 TM Plan P A H, 2/	PLANNED VOLUME BY ALTERNATIVE (SIMMS PROJECTED) HIGH AND LOW FOR DECADES 1 - 5) 2/ A 4/	B	B DEP	C	D	E DEP	F	G	H	H DEP
SAWTIMBER (Chargeable)													
Green sales (ASQ)3/	138 3	106 2	127 1	125-111	137-122	144-97	82- 77	93- 87	109- 99	116-102	123-113	127-117	146-106
Est gire volume 5/	165 3	71 0	95	100- 64	92- 71	92- 56	59- 46	62- 50	79- 56	87- 52	78- 62	85- 66	80- 66	96- 61
Salvage sales	incl above		2 7	4- 0	7- 0	7- 0	2- 0	3- 0	4- 0	5- 0	7- 0	6- 0	7- 0	9- 0
SALVAGE SALES & SAWTIMBER	138 3	106 2	129 8	129-111	144-122	151- 97	84- 77	96- 87	113- 99	128- 69	123-101	129-113	134-117	155-106
SAWTIMBER (Non-Chargeable) (Fast, police, cull)	negligible in existing or planned program												
CUT-RIGHT-BLE (Fast, police, cull)	,3	3	unestimated in existing or planned program										
COMMERCIAL PRODUCTS													
Firewood 6/	3 6	3 6	unestimated	4- 4	5- 4	5- 3	3- 3	3- 3	4- 3	4- 3	4- 4	4- 4	5- 4
TOTAL (TSPQ)	138 2	110 1		133-115	149-126	156-100	87- 80	99- 90	117-102	132- 92	127-104	133-117	137-121	160-110

1/ Note that due to different bases for calculation, these figures may not be directly comparable However, they may be used to show changes in specific components for calculations, over time All calculations were done in cubic feet. The volumes in this table are estimates based on board foot/ cubic foot ratio

2/ Alternative values are for the highest and lowest value for the first five decades Highest level is always the first decade and the lowest is either the fourth or fifth decade The output changes during the five decades because of the change in board foot/ cubic foot ratio, change in salvage and firewood volume, and planned departure from even flow in some alternatives

3/ Yield of timber projected for the period of 1980 to 1989, as calculated for the 1980 Timber Management Plan The Programmed Allowable harvest (P A H) is the sawtimber from green and salvage sales scheduled for harvest.

4/ Allowable sale quantity calculated for the current land and resource management plan direction, projected into the future using new scientific information, such as yield tables and suitability for timber harvest, and using FORPLAN analysis model.

5/ Estimated volume of ponderosa pine that is included in green sale volume. Volume based on years 1980 to 1984 Cut volume ranges from a low of 36 4 MMBF in 1982 to a high of 109 0 MMBF in 1984

6/ Firewood volume is based on years 1981 to 1984 Essentially all of this was sold as personal use

B DEPARTURE decline 31 percent Alternative
E DEPARTURE decline 2? percent, Alternative
H DEPARTURE decline 19 percent

Expressed in board feet all alternative timber harvest levels will decline over time This is due to change in cubic feet/board foot ratio as harvesting changes from old growth to smaller and growth material The larger the material the more board feet per cubic foot for example an existing pine sawlog has 6-1/2 board feet to every cubic foot whereas managed stands of pine may be as low as 4-1/2 to one The most loss occurs in the three departure alternatives, Alternative B-DEPARTURE 31 percent, Alternative E-DEPARTURE 28 percent, and Alternative H-DEPARTURE 24 percent Other alternatives show moderate declines Alternative F, 12 percent A and B, 11 percent, Alternatives E, G, and H by 9, 8, and 7 percent respectively The smallest decreases over time are shown by Alternative D, 2 percent and Alternative C, 1 percent Currently, employment levels are a function of the harvest level in board feet It is uncertain whether employment levels in the future will be more closely related to cubic foot measures or board foot measures Further interpretation of these figures is left to the reader

Table IV 4 ALLOWABLE TIMBER SALE QUANTITY

Alternative	Million Cubic Feet Year 1986	Million Cubic Feet Year 2015	Decline	Million Board Feet Year 1986	Million Board Feet Year 2015	Decline
A	20 4	20 4	0%	125	111	11%
B	22 9	22 9	0%	137	122	11%
B DEP	24 4	16 9	31%	144	100	31%
C	13 9	13 9	0%	82	81	1%
D	15 5	15 5	0%	93	91	2%
E	18 2	18 2	0%	109	99	9%
E DEP	20 4	16 1	22%	123	89	25%
F	19 4	19 4	0%	116	102	12%
G	20 4	20 6	0%	123	113	8%
H	21 0	21 0	0%	127	118	7%
H DEP	24 4	19 7	19%	146	111	24%

As discussed on page 96 and fully described in Section 5 of Appendix B, ponderosa pine has more influence on employment levels than do other species Table IV-5 shows the percent of total volume ponderosa pine represents for the first two decades for all alternatives

In recent years the percent of ponderosa pine sold has varied from 75 to 80 percent of the total volume sold For the first five decades the percent of pine volume will average 65 to 70 percent for all alternatives

Table IV 5 PERCENT OF PONDEROSA PINE BY ALTERNATIVE

Decade	A	B	B DEP	C	D	E	E DEP	F	G	H	H DEP
1	61	67	64	7	67	74	71	67	67	67	67
2	61	67	71	74	75	69	70	72	70	71	0

SOCIAL MEASURES

In order to examine the social effect of the alternatives five criteria are considered They are

- Effects on occupation lifestyles
- Effects on leisure lifestyles
- Effects on peoples' attitudes beliefs, and values
- *Effects on the social structure* institutions community cohesion and community stability
- Effects on minorities and women (civil rights)

Some of the social effect estimates are drawn from IMPLAN modeling which have been computed for the first two decades only

ASSUMPTIONS AND INTERACTIONS CONCERNING OCCUPATIONS

Six lifestyles identified in the Socio Economic Overview prepared for the Forest and Grassland (pp 62-92) were Native Americans farmers, loggers millworkers, small town merchants, and government employees

In terms of total County employment the number of government employees is assumed not to vary significantly by alternative The Native American lifestyle is treated in the Minority Groups and Women section Therefore, loggers, millworkers, farmers, and merchants are discussed here

Loggers and mill workers are directly affected by Forest timber availability Workers employed in logging or sawmill operations are affected by the total volume of timber harvested For those employed in remilling operations (which is the largest single industry in Crook County) the critical variable is the harvest level of ponderosa pine However well over half of the ponderosa pine which is remilled in Crook County comes from sources other than the Ochoco National Forest Wherever the logging or milling sector employment changes by 10 percent or more from the current level it is estimated that the millworkers lifestyle would be significantly strengthened or weakened

Small town merchants are also affected by Forest output levels but the effects are less direct If timber harvest levels rise or fall significantly the incomes of loggers and mill workers will be affected They will then be spending more or less in their communities, thus impacting local merchants Similarly but to a lesser degree varying levels of recreation affect the merchant The more recreation available, the more recreationists (both resident and non resident) patronize local businesses

Comments On The Proposed
Ochoco National Forest
Management Plan

Prepared by
Richard E Kuczek
Labor Market Economist

As I am the LME for Wheeler and Grant Counties, I am, of course, primarily concerned with the impact that the Plan would have on these counties. Most of my comments will directly relate to this concern. Some comments will be more general in nature, as certain overall characteristics of the plan will certainly have significant effects on all the counties which have a dependency on the Ochoco.

First, I would like to briefly address Grant County. While 59,000 acres of the Ochoco are in Grant and Grant is very much a lumber dependent county, the Ochoco represents a relatively small portion of Grant's forest base, there being far more acreage of the Malheur National Forest in Grant. I agree with the Forest Service's assessment that the Plan will not have a major impact on Grant, though I do believe that some of the undesirable aspects of the plan will have a small but negative impact on Grant. Most comments made about Wheeler County, and about the Plan in general will also apply to Grant, but with less impact and less affect. The real danger to Grant would come about if the Malheur Plan (still in production) were to include the same undesirable features as the Ochoco. This 'double hit' could have severely detrimental impacts for Grant.

Wheeler County is summarily dismissed by the Forest Service as a county which does not have a major dependency on the Ochoco. I disagree with this. Indeed, Wheeler may very well prove to be the single most impacted county of all those which contain portions of the Ochoco. While Wheeler only contains 127,495 acres of the Ochoco, compared to 223,237 for Harney, and 433,820 for Crook, Wheeler is a relatively small county, and the Ochoco acreage is fully 10% of the total county land area. More importantly, it represents a much larger proportion of the county's total forested area. In addition, Wheeler is a gateway for tourists, campers, and hunters to enter the Ochoco. While this tourist trade through Wheeler may be small compared to hat through other counties, and while logging activities in Wheeler are minute compared to those of Crook, Harney, and Deschutes, Wheeler is a tiny county with a tiny population and miniscule wage & salary employment Ochoco related employment is a vital part of the County's private sector economy and a significant contributor to wage employment.

While the timber industry in Wheeler County crashed a few years ago, and the county currently has no mills and slight opportunity for regaining one, logging still accounts for 10% of all private sector wage and salary employment. As these logging jobs are among the highest paying jobs in the county, they represent a significant contribution to the county's earned income and provide critical support to the county's small retail trade sector. Retail trade accounts for about 30% of the county's total private sector wage and salary employment. Retail trade also demonstrates a clear seasonal pattern, where employment will increase 50% to 100% during late summer and fall, when recreational and hunting use of the Ochoco is at its peak. Thus a full 40% of the county's private sector wage and salary employment is either directly Ochoco related or potentially so. Perhaps of even greater importance is the County government's dependence on payments from the Ochoco. In 1984, payments from the Ochoco accounted for 44.3% of the county's revenues. Obviously, any significant decrease in these payments would create an immediate and severe financial crisis for the Wheeler County government. In particular, any layoffs of local or county employees would severely impact Wheeler, and would severely affect the small retail sector in the county.

I think that it is safe to conclude that Wheeler stands to experience major impacts from the National Forest Plan for the Ochoco. As these impacts will almost certainly be negative, Wheeler could be severely affected.

Wheeler can hardly afford this. Wheeler is totally dependent on agriculture, timber, and recreation as its economic base. As both agriculture and timber have been troubled industries, with declining employment, Wheeler has suffered greatly. Wheeler's population has decreased by 56% over the last 25 years. Potential for growth in agriculture or timber employment is nil, and recreation related employment is unlikely to significantly increase under even the most recreation/big game emphasized alternative for the Ochoco.

The first flaw with the Ochoco plan is that it attempts to be all things for all people and uses. A national forest is a limited resources. Competing demands (timber harvest vs. big game vs wilderness vs. riparian, etc) mean that not all demands can be maximally satisfied. This will, of course, result in making some people unhappy. The Ochoco planners seemingly wanted to avoid making anyone unhappy, so they attempted to provide everyone (every demand or competing use) with everything. They essentially have achieved this by decreasing general forest acreage (timber harvest emphasis) and increasing acreage for virtually every other usage. Big game management acreage was a particular gainer (the Plan, in all alternatives offered, has, as a primary driver, a Forest Service perceived mandate from the state to double the elk population. This mandates increased big game management at virtually any cost to other uses, and distorts and limits all alternatives.) (This driving of the plan by elk population needs resulted from the acceptance of a state issued goal of doubling the Ochoco's elk population in a game management plan as a minimum requirement for all acceptable alternatives. The Ochoco already meets, and could continue to meet, all other big game management objectives, with reduced big game management areas. Elk require large areas per animal, and the major elk population increase requires significant additional land devoted to big game management to achieve this population expansion goal. No purpose other than increasing elk is accomplished by this, and since the model accepts this elk increase as mandated, it will devise no alternative which doesn't achieve it at least for a period of time. It is also a principal basis (apparently) for downgrading some of the alternatives considered). While this keeps everyone but the timber industries happy, it reduces the timber harvest (the E-Alternative). To make the timber industry accept this reduction in logging potential, the preferred plan (E-Departure Alternative) provides for ten years of significant over-cutting to keep the timber harvest up. To put it bluntly, it appears as if, to avoid making the hard, controversial decisions as to usage priorities, which could result in political pressures, the planners decided to 'burn' the forest for ten years. This proposed massive over-utilization of the Ochoco's resources will

inevitably result in a future 'crash' where utilization must be drastically decreased to allow the forest to recover. This crash effect is totally allocated to timber harvest under the preferred alternative. The impact on the surrounding and affected counties will be severe. Timber related employment will decrease sharply, payments to counties will be significantly reduced, and secondary economic sectors will be impacted by the spin off. The Forest Service contends that some of this future adverse impact will be alleviated by increases in recreation/hunting retail and service employment. This is not true. The Forest Service equates recreation related jobs with logging and milling jobs. Recreation related employment is much more seasonal (and a much shorter season) than timber related employment, and such jobs pay much less per hour than logging or mill work. The adverse financial impact in terms of lost wages would be severe even if we were talking of a one for one job trade. It is plan from the Plan, that even the Forest Service's optimistic (and unsupported) claim for job increases from increased recreational/hunting use does not come close to one for one replacement of lost timber jobs.

A second flaw is that the Plan does not fully credit the impact of the shift from uneven-age management to even-age management. This will mean a drastic decrease in the harvest of valuable older Ponderosa Pine (which the local mills are designed to handle) and a shift to younger, small trees (which the local mills can't utilize). As in ten years the timber harvest will begun to be reduced severely, there is virtually no incentive for local companies to make the investment needed to build new mills, or to revamp existing mills, to handle the smaller logs which the even-aged management will produce. I am not completely satisfied, either, that the planners adequately have accounted for the difference in value between older Ponderosa and the small logs to be produced in the future Even-age management will also have a detrimental effect on the visual quality of the forest, and upon its attractiveness for recreational use.

A final comment needs to be made about how the comparisons between alternatives was made. Almost all the data, and almost all the comparisons were based upon the first ten years of the alternatives. The preferred E-Departure Alternative looks very good from this perspective, it truly provides all things for all people. But, the severely adverse impacts in later decades, due to sharply reduced timber harvests are minimized in this analysis. Any alternative based upon severe over-utilization of the forest's resources for a ten year period will look good, for the first ten years. The next forty are where the preferred E-Departure Alternative crashes, and very little analysis and data/projections are detailed for these years.

There is little doubt in my mind that the preferred E-Departure Alternative will be highly detrimental to the counties (including Wheeler) which have a significant dependence on the Ochoco. The timber industry will be hurt, in the long run, and county revenues from forest payments will greatly decrease. Wheeler County will experience a major decline in county government revenues which it will have no chance to recover from other sources. As timber related employment drops, the secondary economic sectors will likewise suffer, and the few new jobs created in recreation/hunting related sectors will in no way make up for the lost timber earnings. I see little positive about the long range impacts of the preferred alternative, the visual qualities of the forest will even suffer under it.

If other uses are to predominate over the timber harvest, local timber industries would be far better off to see a steady-yield plan (such as E-Alternative, without the departure schedule) implemented directly. A reduction in timber harvest now will be less detrimental than a much larger reduction, for several decades, beginning ten years down the road. Also, while even-age management will help keep cubic-feet (harvest) up, this is of no great benefit to the timber industry, which would have to invest millions to use the resulting logs. Retention of an uneven-age growth management scheme would do much more to keep the value of the harvest up, without large facility investments, which is at least as important as board feet or cubic feet harvested. Uneven-age management would also have superior visual, riparian, big game, and recreational values, as well as higher timber values.

The other direction the planners could go would be to make those hard (and possibly unpopular) decisions they seem to be trying to avoid, by establishing clear priorities as to forest usage. If non-timber uses are to be given the higher priorities, this should be done out front and with a steady-yield plan, which keeps harvest value, not just cubic feet, as high as possible. Such an approach would facilitate planning for the necessary adjustments and would be far easier for the timber industry to deal with. The least adverse approach, of course, in terms of local (and state-wide) economic impact, would be to set timber harvest as a high priority (both yield and value) and to reduce the emphasis on other, competing uses (particularly the ill-considered mandate to double the elk population). The G-Alternative offered, but rejected, seems to accomplish this in at least a minimally satisfactory way, and would clearly have the least adverse impact on local economies of all the alternatives presented, while preserving some use of the forest of non-timber demands. The preferred E-Departure Alternative is clearly not acceptable.

Department of Human Resources
EMPLOYMENT DIVISION
875 UNION STREET N E SALEM OREGON 97311

IN REPLY REFER TO

August 14, 1986

RES:JH
R&S 2

Camille Hall, Planner
The Oregon Consortium
260 SW Ferry, #102
Albany, OR 97321

This letter is in response to your request for an estimate of the employment multiplier for the lumber and wood products industry both statewide and for the non-metropolitan counties comprising the Oregon Consortium.

First of all, let's define the concept of an economic multiplier Since local businesses, households, and government agencies purchase goods and services from one another, any new development in a community generates both direct and indirect economic impacts. The multiplier is a single number that estimates the total economic impact of a given change in the local economy. There are many different types of multipliers, including multipliers for business output (or sales), personal income (or earnings), and employment. Most multipliers are estimated as follows.

$$\text{multiplier} = \frac{\text{total change}}{\text{initial change}},$$

in whatever units are being considered· business sales dollars, number of jobs, etc. For our purpose, we will focus only on the employment multiplier (# of jobs, not FTE's) for a particular industry, lumber and wood products. Also, this will be considered a Type II multiplier which aggregates the following impacts

1. Direct impact - employment change within the lumber and wood products industry

2. Indirect impact - employment change in other industrial sectors resulting from purchases by the lumber and wood products industry.

3. Induced impact - employment change resulting from purchases by households that receive income through either the direct or indirect effects.

To help you better understand the concept of economic multipliers and avoid their possible misuse, I've enclosed several recent papers on this topic.

To derive an employment multiplier for lumber and wood products for Oregon and for local areas within TOC, we enlisted the help of two economists (Stan Detering of BPA and Hans Radtke) who have had considerable experience in this area. The employment multipliers that follow were generated using the IMPLAN system developed and maintained by the U S. Forest Service. This is a computer-based system which uses input-output analysis procedures and provides forest planners with the capability to develop non-survey based interindustry models and apply them to the evaluation of alternative management programs. The specific IMPLAN computer runs were prepared by the Bureau of Land Management, U.S Department of Interior. Detering and Radtke believe that the IMPLAN system estimates of employment multipliers tend to be a little higher than employment impacts generated using valid survey-based models. I have enclosed a brief paper describing the IMPLAN system. If you want more detailed information, let me know.

Employment multipliers for SIC 242 and 243 are shown below for the State and a number of local areas·

	SIC 242	SIC 243	AVER-AGE
Oregon (statewide)	2.9	2.9	2.9
Grant & Harney	2.2	2.3	2.25
Crook, Deschutes, & Jefferson	2.3	2.4	2.35
Coos	2.2	2.2	2.2
Curry	2.1	2.1	2.1
Lincoln	2.1	2.2	2.15
Clatsop	2.1	2.3	2 2
Tillamook	1.7	2.1	1.9
Lake	2.5	INA	2.5
Wheeler, Gilliam, Sherman, & Jefferson	1.9	INA	1.9
TOC Average (based on above areas only)	2.1	2.2	2.2

Additional multipliers for other areas

NW Coast (Clatsop, Lincoln, & Tillamook)	2.1	2.2
Portland Metro (Clackamas, Multnomah, & Washington	3.5	3.3
SW Oregon (Coos, Curry, Douglas, Jackson, & Josephine)	2.3	2.5
Lane	2.5	2.8
E. Oregon (includes 18 counties in E. & C. Oregon)	2.4	2.5
Crook, Deschutes, & Jefferson	2.3	2.4
SE Oregon (Lake, Harney, & Malheur)	2.4	2.4
Willamette Valley (Lane, Linn, Marion, Polk, Yamhill, Multnomah, Washington, & Columbia)	2.9	3.0
Jackson & Klamath	2.5	2.6

Note that, in general, the employment multipliers get larger as the area covered gets larger. This is because the economies of large areas are more diverse, and a larger proportion of income is spent locally on goods and services. This explains why the lumber and wood products multiplier for the state is 2.9, while the one for Eastern/Central Oregon (an 18 county area) is about 2.5. Since you will be doing planning at the sub-district level within TOC, we suggest you use an employment multiplier of 2.2 for lumber and wood products, which is an average of nine individual areas (not the combined area) within TOC for which separate data was available. This average assumes that SIC 242 and 243 are given equal weight, and that they fairly represent the lumber and wood products industry (SIC 24).

Usually, these multipliers are used in the context of analyzing the impacts of new jobs or new industry to an area Whether these multiplier impacts would be of equal magnitude in the opposite direction if an area lost the same number of jobs is an interesting question. To the extent that these workers remained in the area and received income from transfer payments etc. the downside multipliers would probably be lower, at least in the short run.

I hope that this information will be helpful to you. If you have any questions, please don't hesitate to call me or Jeff Hannum.

Sincerely,

Mike

Michael D. Staten, Supervisor
Labor Market Information Programs Unit

MDS·jm

Enclosures

cc Area Labor Economists
Radtke

5206D/10-13

IMPLAN AN INPUT-OUTPUT ANALYSIS SYSTEM FOR FOREST SERVICE PLANNING

Gregory S Alward[1/]
Charles J Palmer[2/]

ABSTRACT -- IMPLAN, a computer-based system for developing non-survey input-output models, is discussed The contents and procedures used to develop the extensive nation-wide data base are identified and the analytical capabilities of the system described in the context of Forest Service planning efforts. Finally, possible extensions of the system are noted

INTRODUCTION

The USDA Forest Service has developed a computer-based system referred to as IMPLAN, to assist its land and resource management planning efforts involving economic impact assessment The IMPLAN system utilizes input-output analysis procedures and provides forest planners with the capability to develop non-survey based interindustry models and apply them to the evaluation of alternative management programs This paper provides a general overview of the data model building procedures and analysis capabilities that comprise the IMPLAN system

Input-output models have frequently been used to describe the role of forestry activities in regional economies (Eirod, et al, 1972, Troutman and Porterfield, 1974) Input-output models have also been used to evaluate forest policies and programs (Schallau, et al, 1969, Connaughton and McKillop, 1979) The usefulness and applicability of input-output analysis to Forest Service planning has been demonstrated (Palmer and Keaton, 1978 Alward and Stewart 1978) Indeed several of the planning requirements of the National Forest Management Act of 1976 (P L 94-588) and its implementing regulations (36 C F R 219 Subpart A, September, 1979) require economic analyses of proposed plans such as those that can be performed using input-output techniques.

Many applications of input-output models have utilized primary data obtained through direct surveys Consequently the cost in terms of money and manpower for these studies has been substantial (Bourque and Hansen, 1967) Various techniques for constructing models using secondary data have been proposed (Czmanski and Nalizia, 1969,

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Richardson, 1972) and applied, significantly reducing the cost of obtaining a useable model. The debate about the veracity of secondary data models compared to primary data models continues (Schaffer and Chu, 1969, Miernyk, 1979). Given the magnitude of the planning task[3/] confronting the Forest Service, however, the cost of preparing the required number of models using primary data procedures was clearly prohibitive. Consequently, a data base of economic information relying upon secondary sources was developed[4/] as well as an efficient software system to perform the required computations. The resulting IMPLAN system has the capability of producing a non-survey based input-output model for any region of the United States, with the greatest degree of geographic resolution being a single county.

DATA BASE

The IMPLAN data base consists of two major parts (1) a national-level technology matrix and (2) estimates of sectoral activity for final demand, final payments, gross output and employment for each county. The data represent 1977 county level economic activity for four hundred and sixty-six sectors

The national technology matrix denotes sectoral production functions and is utilized to estimate local purchases and sales. This 466-sector, gross domestic based model was derived from the Commerce Department's 1972 national input-output model (U.S. Department of Commerce, 1979(a)). The 'use' and 'make' tables were rectified to an industry by industry basis and updated to 1977 using relative price changes and the RAS procedure (Stone and Brown, 1962) with the 1977 National Income and Products Accounts (U S Department of Commerce, 1977(b)) information used as control totals Aggregation of some agriculture, construction and manufacturing sectors, and disaggregation of the mining sectors resulted in the reduction in the number of sectors from 496 in the Department of Commerce tables to 466 in IMPLAN. The matrix is a highly disaggregated representation of national average sectoral input and output technology and it is on the basis of these production functions that regional purchase patterns are estimated.

3/ Approximately 124 forest plans, 9 regional plans and a national program

4/ This was developed by Engineering-Economics Associates of Berkeley, California. This use of the company name is for the benefit of the reader, such use does not constitute an official endorsement or approval of any service or product by the U S. Department of Agriculture to the exclusion of others that may be suitable.

Estimates of economic activity and production employment for each of the 466 sectors for all states and every county within each state were made for the components of an input-output table listed in Table 1 The estimates of economic activity for states and counties were made through a downward movement approach beginning with total national activity and disaggregating to states and ultimately to counties with control totals employed at each level. As previously noted, the updated 1977 national table was benchmarked with the 1977 National Income and Product Accounts. Since comparable accounts are not available for states or counties, the most suitable regional measures of economic activity were used to disaggregate the national production and demand activity, first among states and then among counties within each state

Table 1 -- Contents of the IMPLAN Data Base for each U.S. County

A Final Demand

1 Personal Consumption Expenditures
2 Capital Formation
3. Inventory Change
4 State and Local Government Expenditures
5 Federal Government Expenditures
6 Foreign Exports

B Final Payments

1. Employee Compensation
2 Indirect Business Taxes
3 Property-Type Income

C Total Gross Output

D Production Employment

Gross output and employment estimates utilized several sources, principally censuses For example agriculture sector activity used the Census of Agriculture (U.S Department of Commerce, 1977(b)) and the Agricultural Statistics (U S Department of Agriculture 1979) Gross output measures for most other sectors[5/] utilized proxy measures derived from employment and payroll data principally the national summaries of the County Business Patterns (U S Department of Commerce, 1977(a)) and employment data from the Dun and Bradstreet Corporation (1977). Some sectors could be related to specialized data sources such as the Census of Housing (U S Department of Commerce, 1970) for owner-occupied dwellings and the Census of Governments (U S. Department of Commerce, 1977(c)) for government-related sectors All data was adjusted to the 1977 base year and unreported data was estimated utilizing the RAS procedure

Final demands were estimated consistent with control totals from the National Income and Product Accounts, by updating the 1963 Multi-Regional Input-Output data (Polenske, 1970) using the RAS procedure as suggested by McMenamin and Harring (1974) The three components of value added were allocated on the basis of gross outputs. Both final demand and final payment estimates were disaggregated using the 'downward movement approach

In its entirety, the IMPLAN data base provides a comprehensive, nation-wide set of input-output information which can be used to construct non-survey based regional tables The national technology matrix is maintained at the highly disaggregated 466-sector level of detail which greatly reduces aggregation errors caused by using 1- or 2-digit SIC (Standard Industrial Classification) industry groupings. Consequently, the industry-commodity relationship is much more consistent than in highly aggregated models. The hierarchical nature of the data base, achieved by the use of published control totals at each level of disaggregation, results in a data base that permits the construction of models that are consistent both in terms of definition and activity These principal aspects result in significant improvements over the data used in many previous non-survey input-output studies.

DATA REDUCTION

The IMPLAN software system was designed to serve three functions (1) data retrieval, (2) data reduction and model development and (3) impact analysis The first two functions are discussed in this section and the third in the following section

5/ Bureau of Economic Analysis input-output sectors 3 00 through 77 05, excluding sectors 11 00, 12 00, 65 01 and 71 01 (U S Department of Commerce, 1979(b)).

The data retrieval system was designed so that the user could have access to input-output data for any U S state county or combination thereof The study area data is referenced via a standard set of state and county codes with the extracted data treated as control totals for the region being analyzed Modification of data, if desired by the user, is permitted

Utilizing the national technology matrix and the regional control totals, a data reduction method is employed to develop a regional input-output table The method used exploits the property of "openness" displayed by regional economies compared with the national economy (Richardson, 1972) Regional economies exhibit much greater propensities to import and export than is observed at the national level Based on the assumption that trade balances are the principal difference between national and regional purchase patterns (that is, industry production functions are identical but regional imports and exports make local interindustry transactions different), the supply-demand pool technique (Schaffer and Chu, 1968) for data reduction was adopted.

This method for constructing a regional table begins with the national technology matrix and regional data for gross outputs, final demands and final payments Regional data for all 466 sectors is sorted with respect to gross outputs. If the sectoral gross output is greater than zero (firms producing the commodity exist within the region), the corresponding column of direct coefficients is extracted from the national matrix. Using regional gross outputs and the abbreviated matrix of national direct coefficients regional purchase transactions are computed This transactions matrix is then scanned row by row. If the industry represented by any row has zero regional gross output (the industry does not occur within the region) the estimated purchases of that commodity are assumed to be non-competitive domestic imports and are shifted from the regional transactions matrix to final payments If the gross output is positive and the commodity balance shows a surplus[6/], the domestic import purchases are assumed to be zero, the regional transactions estimated with national direct coefficients are left unchanged, and the surplus assumed to be domestic exports If the commodity balance indicates a deficit, the regional final demands and transactions estimated with the national coefficients are proportionately reduced across the row to obtain a balance, and the differences assumed to be competitive domestic imports The result of this process is a matrix of local transactions between regional industries plus estimates of both competitive and non-competitive imports as well as exports

The data reduction procedure used in IMPLAN produces a complete table of regional input-output accounts including a transactions table, the final demand and final payments quadrants, and the fourth quadrant

6/ Regional gross output is greater than regional final demand plus intermediate demand estimated with national direct coefficients.

In addition to this typical table of accounts, detailed reports of sectoral competitive and non-competitive import purchases are given. Based upon the regional accounts, the predictive input-output model can be derived by computing the standard Leontief-type inverse and calculating various income and employment multipliers If appropriate, the number of sectors in the model can be reduced through aggregation prior to inverting the matrix

Several limitations to non-survey data reduction techniques have been noted (Richardson, 1972, Fisch and Gordon, 1978) and the supply-demand pool procedure likewise has limitations. One principal limitation of the supply-demand pool technique is that cross-haul conditions are ignored while evidence suggests that this may be a common occurence in regional economies. This arises from the technique's method of allocating local production to meet local requirements before imports or exports are estimated Through the use of a highly disaggregated technology matrix and a consistent data base, the IMPLAN system has mitigated though not eliminated many limitations noted by others For example, Richardson (1972) commented that the use of the national technology matrix may overestimate the interdependence of a regional economy. Similarly, Miernyk (1976) criticizes the supply-demand pool technique assumption of proportionate imports by all purchasing industries. Continued improvements are being sought to enhance the system

ANALYSIS

The analytical capabilities of the IMPLAN system can be classified into two broad categories (1) the estimation of impacts originating from changes in final demands, and (2) the evaluation of constraints upon sectoral gross outputs Estimating the regional economic impacts of disturbances in the final demand vector caused by resource management actions is the most frequently used form of input-output analysis employed in Forest Service planning studies. These demand disturbances arise from such activities as timber harvesting, grazing and recreation, as well as direct budgetary expenditures for goods and services. Economic impacts are expressed by the changes in regional income and earnings, employment, gross output and various other parameters

Input-output models are typically used in Forest Service planning studies to estimate the regional economic effects of implementing optional management plans These plans describe the intended management activities on a National Forest along with the expected outputs, resource uses and budgetary expenditures Economic impacts are characterized as changes (increases or decreases) from current conditions. Planning teams frequently employ input-output models in other ways The models provide excellent descriptions of regional economic structure, giving planning teams valuable information for formulating Agency policies regarding economic growth or stabilization Opportunities for developing markets for forest products can often be identified through the use of input-output

accounts. Major structural changes in an economy, caused by such events like mine construction or ski area development can be investigated by generating hypothetical models that characterize the introduction of new industries Input-output models have become integral components of the formal planning models employed by the Forest Service

The linkages between Forest Service management actions and corresponding estimates of net changes in regional final demands are critical components in the use of input-output analysis for impact estimation These disturbances in final demand arise from two principal sources public expenditure effects and private sector output effects (Cartwright, 1979) Public expenditure effects arise from demand disturbances caused by government purchases of goods and services For example, timber stand improvement projects or the construction of recreational facilities involve purchases for labor, materials and so forth which can directly be transformed into a demand disturbance vector Private sector output effects are somewhat more complex These effects stem from the use of forest resources and indirectly (from the viewpoint of the Forest Service) result in demand disturbances For example, the Forest Service's provision of various factors of production such as stumpage for wood products water for municipal and domestic uses, and forage for red meat production must be traced to its final regional economic use, either directly to exports or via forward linkages and "stemming-from effects (see, for example, Roesler, et al, 1968) The effects of the use of forest resources for recreation can be directly transformed into demand disturbances by deriving a typical "bill of goods purchased locally by the recreationist during the pursuit of such activities In all cases the demand disturbances represent regional market transactions expressed in purchaser's prices with appropriate transportation and trade margins

Traditional applications of input-output models utilizing demand disturbances as the source of interindustry effects, contain an implicit assumption of sufficient resource supply to permit attainment of an equilibrium economy. As is often the case with forest resources, some of the primary resource supplies may be restricted within a regional economy (for example, the amount of water may be restricted) If the change in forest output is used, under these circumstances, to derive a disturbance in demand and the model used to estimate the resultant multiplier effects, the backward linkages would usually indicate a total demand for the resource exceeding the original change The IMPLAN system has been designed to perform analyses under these conditions by permitting the user to link the change in resource output directly to a change in sectoral gross output rather than a change in final demand The input-output model is then used to estimate the maximum level of delivery to regional final demands attainable given the constrained level of gross output. This kind of analysis is often applicable to economies that are highly dependent upon primary resources

The economic effects estimated with IMPLAN are described by parameters typical of input-output studies. They are structural in nature permitting multiplier effects to be traced throughout the various regional sectors Direct, indirect and induced changes in gross outputs and final demands, employment and import requirements, income and earnings are the most representative parameters used to describe impacts The availability of a complete table also permits calculation of gross regional product Induced effects are computed using a modified "Type III" multiplier procedure (Miernyk, 1965), iteratively solving the open model to capture the effects of induced consumptive spending. Detailed employment analysis is possible by tracking employment requirements among various occupations and accounting for the effects of either in-migration of workers or re-employment of unemployed local labor In combination, this information provides a comprehensive, detailed account of potential regional economic impacts

IMPLICATIONS AND EXTENSIONS

The IMPLAN system provides the user ready access to detailed non-survey based input-output models of regional economies. The availability of an extensive data base permits construction of detailed models that portray the structure of the regional economy under study The data reduction technique takes explicit account of the open" nature of these economies, tracing both intra-regional flows as well as imports and exports The models also permit analysis of Forest Service activities, either individually or in combinations such as a management program The construction and use of these models are relatively rapid and inexpensive, and the system is available throughout the Agency via distributed computer network A major advantage of the system is to permit resources to be devoted to the utilization of input-output models in planning rather than to model construction.

Possible extensions in the use of IMPLAN data and models involve more extensive uses of impact models in Forest Service planning To date, most impact analyses have focused upon local area studies In the context of a multi-level planning system (see the article by Hof in this volume), the usefulness of input-output models will certainly become apparent State and regional models will likely become closely linked to the planning model to estimate the economic implications of various Forest Service policies Similarly, structural analyses of timber policies investigated by the Timber Assessment Market Model (Haines and Adams 1980) may also be possible It appears that the availability of input-output models on a regional basis will permit a wide breadth of innovative uses in natural resource management

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$1 00

Sectoral Output Multipliers for Rural Counties

Lessons from Oregon's Input-Output Studies

People interested in economic development in rural communities are often faced with the need to estimate impacts of economic changes (such as plant openings or closings or expansions) or to forecast population employment business activity, or public service demands

An economic tool that is often used to assist in this task is the multiplier This circular is designed both as an introduction to multipliers for the practitioner (planner, public official business person, citizen) and as a guide to help them select the appropriate multiplier for a given application

The circular is divided into four sections The first explains what a multiplier is distinguishes several important types of multipliers and discusses how multipliers are estimated The second section (page 3) identifies two principal uses of multipliers

The third section (page 4) summarizes what we have learned about multipliers for 13 sectors from 11 survey based input-output (I O) models that agricultural and resource economists at Oregon State University have constructed for nine rural Oregon counties during the past two *decades*

Average sector multipliers and measures of variation in multipliers across counties are then presented to give practitioners a feel for the size and variation in multipliers for different sectors

The final section (page 7) is a guide for practitioners who wish to use sectoral multipliers from existing I O models in areas where no input output model has been constructed or where the existing I O model may be inappropriate because the structure of the economy has changed therefore also estimate *sectoral multipliers*, which indicate the change in total economic activity (employment, income, or output) generated by a one unit change in exports of a given sector

A *sector* is a group of firms engaged in the same general type of business *Households and governments are also* considered sectors because they are relatively homogeneous units that respend income locally

The multipliers discussed in this circular are sectoral rather than aggregate multipliers They were estimated using input output models, which are mathematical descriptions of the purchases and sales among businesses, households, and government agencies in an economy

Sectoral multipliers are estimated for all sectors because all sectors generally have some export sales Grocery stores sell potato chips to tourists local dentists and doctors do emergency work on people from other areas realtors sell recreation property to Californians

The bulk of exports for most Oregon counties of course tends to come from the sectors that produce primarily for export lumber and wood products, agriculture fishing and fish processing other manufacturing lodging

What are multipliers?

Multipliers are measures of the degree to which the various firms and households in an economy are interrelated They measure the impact of a given external change (new investment export expansion influx of dollars from outside governments) on total economic activity in a given economy through the respending of the new dollars within that economy

Aggregate versus sectoral multipliers

Two types of multipliers are commonly *used by economists aggregate and sectoral* Aggregate multipliers measure the interrelatedness of the entire economy These multipliers are usually estimated for regional economies using an economic base technique The economic base method divides the economy s income or employment into basic (export serving) and nonbasic (local serving)

Dividing total income or employment by basic income or employment yields multipliers which estimate the change in total employment or income generated by a one unit change in export income or employment

Because some types of business tend to purchase more locally per export dollar *than others different sectors of an economy* have different multipliers Economists,

How local respending multiplies the effect of export sales

How is the effect of a dollar of export sales multiplied in a local economy? Suppose a county s forestry industry increases export sales by $1 000 If the economy has a multiplier of (say) 1 66, total business sales throughout the county are expected to increase by a total of *$1 660 as a result of the $1 000 increase in* exports

Do you wonder how this additional $660 of business activity is generated? Figure 1 demonstrates how local respending of the export payment by businesses and households creates this multiplier effect

The process begins when a dollar enters the local economy in this case as the result of an export sale (column a) The dollar will be respent by the exporting firm in order to purchase inputs to meet the increased export demand (column b)

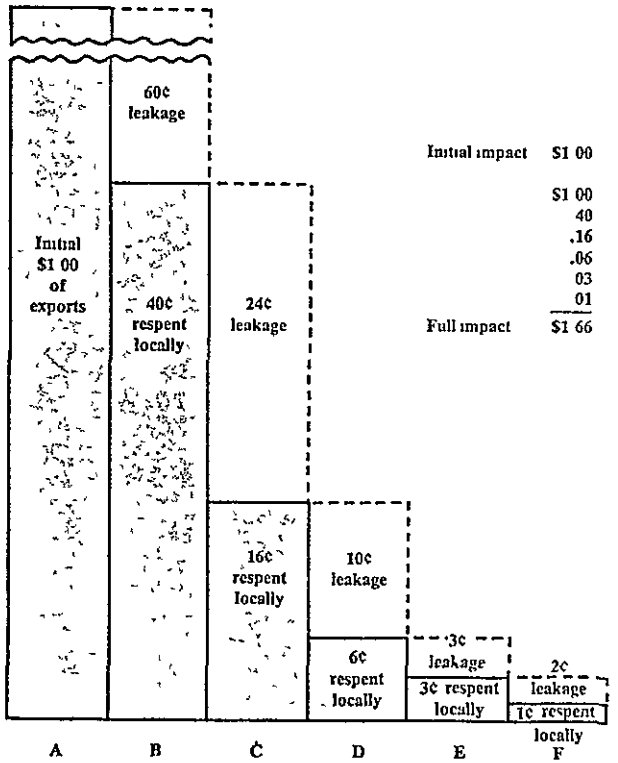

Figure 1 —*How local respending multiplies the effect of export sales (from Lewis, Eugene, et al , Economic Multipliers Can a Rural Community Use Them? Western Rural Development Center, Oregon State University WREP 24, Corvallis, 1979)*

Forty cents of the dollar will be received by local businesses and households but 60 cents will leak out in the form of nonlocal purchases savings and taxes Thus in addition to the initial dollar business respending has generated an additional 40 cents of business activity within the economy

Of the 40 cents that is locally received 16 cents will be respent within the county and the rest will leak out (column c)

This process continues until the amount remaining in the local economy is negligible (columns d e f) Thus greater leakage at any round of respending leads to a smaller multiplier

In order to determine the total multiplier value the initial dollar is added to the sum of local respending In this example the multiplier equals 1 66 ($1 00 + 40¢ + 16¢ + 6¢ + 3¢ + 1¢) Thus $1 66 of local business activity will be generated by each dollar that enters the local economy

Including households

Whether or not the household sector is included as part of the local economy influences multiplier size If households are *excluded* (that is if households are *exogenous* to the model) money flowing to households is considered a leakage and household respending does not add to the multiplier effect

If the household sector is *included* in the local economy (that is considered endogenous) local respending of household income increases the multiplier effect

To the extent that firms make payments to local households and that households respend their income locally multipliers based on a model including households (households endogenous) will be larger than multipliers derived in models with households excluded

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Since household respending has a significant effect on economic activity in an economy multipliers estimated from models with households exogenous are of limited value in impact analyses and forecasting

The multipliers in this circular are all estimated with models that *include* households (household endogenous models)

Output, income, and employment multipliers

The multipliers presented in this circular are business *output* (sales) multipliers *measuring the total change in local sales* generated by a one dollar increase in export sales Economists sometimes compute other kinds of multipliers in order to measure changes of other types

The most common types of multipliers other than the business output multiplier, are the employment and the income multipliers

Employment multipliers measure the total change in employment generated in the local area for each unit change in employment in a local export sector

An *income multiplier* indicates the total change in local household income from a one dollar change in household income payments by an export sector

For many forecasting and impact analysis applications total employment and income are more important indicators of community well being than total sales With additional analysis and additional information input output models can be used to derive income and employment multipliers This circular however reports only business output *multipliers*

Using multipliers

Impact analysis

The most straightforward application of the multipliers is their use in estimating economic impacts of small changes in existing industries For example if a *Morrow County sawmill increased* its exports by $1,000 this year, the Morrow County lumber and wood products sector multiplier of 1 383 indicates that total business sales in the county should increase by approximately $1 400 ($1,383 more or less) as a result of the initial change in export sales

This assumes that the county s economic *structure has not significantly changed* since 1979—the year for which the Morrow County input output model was constructed (An entirely new industry or other major change in the economy may sufficiently alter the county s economic structure to necessitate modification of the multiplier values)

It is important to note that the multiplier merely indicates the impact *per dollar of* change not the total amount of impact that will take place For example a yogurt stand may have a higher multiplier than a large sawmill but the sawmill would have a greater economic impact due to its greater volume of sales

Those sectors with the highest multipliers are not necessarily those that have the greatest potential economic impact on a community

Remember too that sales is often not the most important measure of community well being Sectors with the greatest impact on sales may not have the greatest impact on income or employment

Forecasting

Another important use of multipliers is in making forecasts of business activity, employment or income If you have estimates of export sales (or employment or income) for a given future year, or series of years you can use multipliers to estimate total business sales (or employment or income) in the economy for these *years—if you make appropriate adjustments* for structural changes expected in the economy over the forecasting horizon

If you have estimates of export sales, for example, by sector and also sectoral multipliers from an input output model, you can make forecasts that reflect the diverse local purchasing patterns of different sectors

Let's say you have a simple county economy with only three sectors that export agriculture, wood products and fishing Output multipliers for the sectors are as follows

	Multipliers
Agriculture	2 25
Lumber and wood products	1 92
Fishing and fish processing	2 03

You wish to forecast 1990 business sales in the county, and you have forecasts of *export sales for each of the three sectors*

	1990 forecast of export sales
Agriculture	$ 5,000 000
Lumber and wood products	10,000 000
Fishing and fish processing	1,000 000
Total	$16,000,000

You expect no structural changes in the economy that would change the multipliers in any major way

To estimate total business sales in the economy, multiply the forecast of export *sales for each sector by the sectoral* multiplier and sum as in table 1

Table 1 —*Forecast of total business sales, 1990*

	Forecast of export sales ($)	Multiplier	Business sales generated in each sector ($)
Agriculture	5 000 000	2 25	11 250 000
Lumber and wood products	10 000 000	1 92	19 200 000
Fishing and fish processing	1,000,000	2 03	2 030 000
Total business sales			$32 480 000

Sectoral output multipliers for nine rural Oregon counties with I-O models

During the period 1963 to 1982 agricultural and resource economists at Oregon State University constructed 11 input output models for 9 Oregon counties *based on surveys of firms local governments*, and (in one case) households in each county Two counties, Grant and Clatsop were surveyed twice, with several years between the surveys in each case

Figure 2 shows the location of the counties with survey based input output models These counties (called 'I O counties in this report) are located in all *parts of the state except for the Willamette* Valley Tillamook, Lincoln (Yaquina Bay region), and Clatsop counties in the northwest coastal region Douglas and Klamath counties in southwest Oregon and Grant Morrow, Union and Baker counties in northeast Oregon

More detailed information on the construction interpretation, and uses of *the 11 models on which the information in* this report is based is contained in the publications listed at the end of this report (see ' References, ' section 1, page 10)

Table 2 presents information about two economic characteristics of each county The counties are listed in order of the year for which the input output model was constructed, with the oldest models listed first

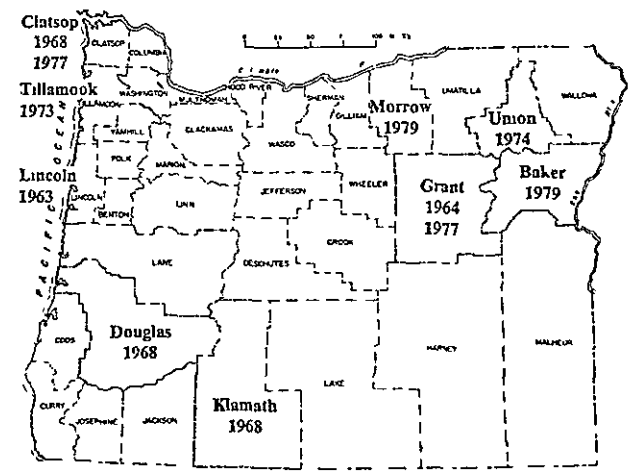

Figure 2 —*Oregon counties with survey based Input Output models (date indicates year for which model was constructed)*

The gross sales column points out the diversity of size in economies of the I O counties The largest Douglas shows sales more than 18 times as great as the smallest Grant County

The other column in table 2 shows the percentage of total county exports from the lumber and wood products and agriculture *sectors All the I O counties depend* heavily on these sectors for exports Along with other manufacturing and fishing (in coastal counties) these four sectors represent the major basic sectors in most rural Oregon counties

Table 3 shows the output multipliers for 13 sectors in each of the I O counties Table 4 which summarizes the information in table 3 *indicates the average* multiplier for each sector and the variation in multiplier values

Table 2 —*Economic characteristics of counties with survey based Input Output models*

County	Year of model	Gross sales ($)[a]	Lumber and wood products and agricultural dependency (%)[b]
Lincoln (Yaquina Bay)	1963	351 300 000	78
Grant	1964	144 168 000	79
Clatsop	1968	1 390 250 000	46
Klamath	1968	1 713 724 000	78
Douglas	1968	2 709 304 000	82
Tillamook	1973	593 379 000	51[c]
Union	1974	930 894 000	59
Grant	1977	380 550 000	86
Clatsop	1977	1 844 158 000	63
Baker	1979	513 793 000	57
Morrow	1979	309 122 000	74

[a] 1980 dollars

[b] Lumber and wood products and agricultural exports as percent of total county exports This is a measure of export dependency (not total economic dependency) in that it indicates the contribution of agriculture and lumber and wood products to export sales It does not measure the importance of these sectors to total business activity on the county since multiplier effects are not included Exports for Lincoln Tillamook and Union counties include sales to state and Federal governments as well as capital and inventory accumulation

[c] Exports of cheese excluded

The multipliers in tables 3 and 4 are calculated in a way that *includes* the effect of household respending within the economy (households are endogenous to the models from which the multiplier estimates are obtained)

Different county I O models defined sectors at different levels of aggregation *Therefore it was necessary in some cases* to group sectors so that all models had common sector definitions This process described in Wood (References ' section 1 page 10) yielded models with 14 sectors, the 13 listed in table 2 plus households

The *average (mean)* sectoral multipliers range from 1 555 in the wholesale products sector to 2 244 in the lodging sector The large multipliers are for the labor intensive sectors (lodging cafes and taverns professional and retail services) and the agriculture sector which purchases a high proportion of inputs locally

The smallest multipliers are for those sectors (communications and transportation, automotive and wholesale products) that import heavily

Table 3 —*Sectoral multipliers for the 11 Oregon county I O models*

Sector	County										
	Lincoln[a] 1963	Grant 1964	Clatsop 1968	Klamath 1968	Douglas 1970	Tillamook 1973	Union 1974	Grant 1977	Clatsop 1977	Baker 1979	Morrow 1979
Lumber and wood products	1 576	1 990	1 601	2 312	2 007	1 843	2 367	2 004	1 487	2 077	1 383
Agriculture	1 550	1 941	2 295	2 627	2 572	2 610	2 698	2 012	2 341	2 169	1 423
Fish and fish processing	1 878	--	1 653	--	2 573	2 267		--	1 972	-	--
Other manufacturing	2 226		1 787	2 765	1 786	2 599	1 697	1 591	1 702	1 988	1 455
Construction	2 278	1 695	1 723	2 181	2 057	2 027	1 654	1 901	2 330	2 096	1 279
Lodging	2 947	2 060	2 011	2 511	2 523	2 418	--	2 038	2 129	2 533	1 265
Cafes and taverns	2 141	1 862	2 031	2 793	2 301	2 657	--	2 190	2 269	2 421	1 521
Communication and transportation	2 017	2 099	1 537	1 717	1 765	1 900	1 641	1 408	1 909	1 761	1 325
Automotive	1 383	1 442	1 581	1 606	1 424	2 653	–	1 638	1 479	1 832	1 427
Professional	*2 502*	*2 032*	*1 220*	*2 389*	*2 565*	*2 751*	*2 753*	*1 267*	*2 517*	*2 586*	*1 650*
Financial	1 752	1 309	1 499	1 815	1 341	2 853	1 923	1 769	2 759	1 784	1 941
Wholesale products	1 485	1 293	1 491	1 747	1 608	1 691	2 191	1 356	1 419	1 594	1 235
Retail services	2 461	1 969	1 961	2 180	1 748	2 153	1 575	2 420	2 386	2 539	1 855

[a] Yaquina Bay region

Table 4 —*Summary statistics sectoral multipliers for rural Oregon counties*

	Mean	Rank of means	Median	Range	Standard deviation
Lumber and wood products	1 877	10	1 990	1 383 2 367	329
Agriculture	2 203	3	2 295	1 423 2 698	435
Fishing and fish processing	2 069	6	1 972	1 653 2 573	359
Other manufacturing	1 960	7	1 786	1 455 2 765	436
Construction	*1 929*	*8*	*2 027*	*1 279 2 330*	*316*
Lodging	2 244	1	2 273	1 265 2 947	455
Cafes and taverns	2 219	2	2 229	1 521 2 793	369
Communication and transportation	1 734	11	1 761	1 325 2 099	244
Automotive	1 647	12	1 530	1 383 2 653	379
Professional	2 203	4	2 502	1 220 2 753	573
Financial	1 886	9	1 784	1 309 2 853	503
Wholesale products	1 555	13	1 491	1 235 2 191	265
Retail services	*2 110*	*5*	*2 153*	*1 575-2 539*	*318*

Another measure of the average multiplier is the *median* This is the middle value above and below which lie an equal number of observations Generally there is little difference between the mean and median values for the multipliers

Two measures of variation in the multipliers are shown in table 4, the *range* and *standard deviation* The range in multiplier values among counties for each sector is considerable in some cases Multipliers in the lodging sector for example range from a low of 1 265 to a high of 2 947 The range in the communications and transportation sector is half as large 1 325 to 2 099

The standard deviation because it is less sensitive to extreme values, better reflects variation in multipliers With this measure the professional and financial sectors show the greatest variation in multipliers across counties communication and transportation and wholesale products sectors, the least

This implies that the import patterns of the latter sectors tend to resemble each other more across counties than those of the professional and financial sectors

Figure 3 graphically summarizes the information in table 4 on the multipliers for the major sectors of the surveyed Oregon counties For each sector the average multiplier of the 11 economies is depicted by the center point Each mean value is flanked by two line segments reflecting the variation in multipliers among surveyed counties Each line segment represents the size of one standard deviation

Accuracy of the multipliers

Multipliers are estimates The primary data upon which the I O models and multipliers are based are obtained through interviews with a sample of the firms in each sector, leading to two possible sources of error

First although firms usually refer to tax or accounting records in providing purchases and sales information incomplete records sometimes mean that estimates must be made

Second because not all firms in every sector were interviewed the possibility exists that the sample was not truly representative of the entire sector For a more complete discussion of the accuracy of the results see Ives and Youmans ('References, section 1 page 10)

Each *I O model reflects the structure of* the county economy *in the year of the model* To the extent that the buying and selling patterns in any county have changed since that time a model (and the multipliers derived from it) will not accurately represent current economic structure

You can observe the amount of change that has taken place in multipliers of two Oregon counties by comparing the values of those counties in which two models were completed several years apart Clatsop and Grant

Carroll has offered the opinion based on his research in Clatsop County that regional I O models become outdated rather quickly "Though some variation would be expected among regions present results indicate that a regional model may not be good for more than ten years and more likely not for more than five years See References, page 10 section 1, Carroll 1980 (page 80)

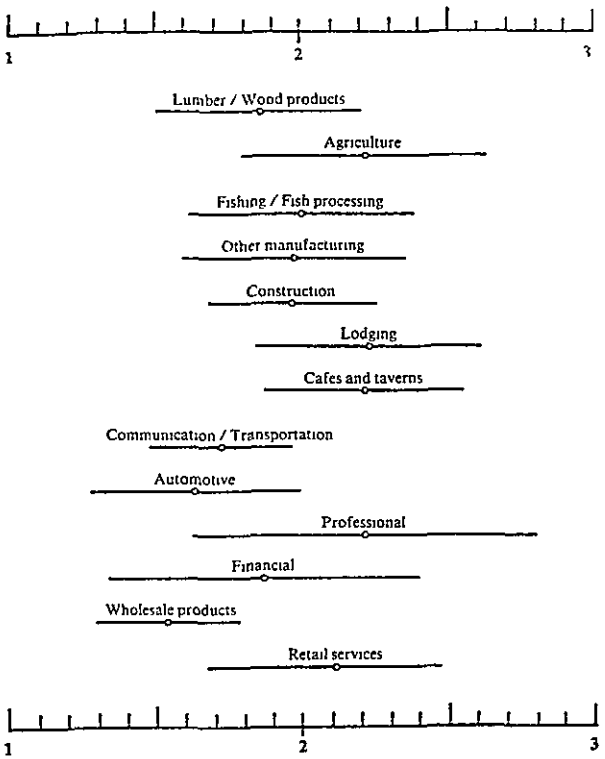

Figure 3 —*Sectoral output multipliers (in each case the dot represents the mean and the lines extending in both directions represent the standard deviation)*

Guidelines for using existing sectoral multipliers

Survey based I O multiplier estimates are presently available only for nine Oregon counties What if you want to estimate economic impacts in other rural Oregon counties or in counties where the I O model is 15 years old?

There are several ways to approach this problem One is to arrange for a survey for the county that interests you—let's call it Cascades County However time and money constraints may rule out the survey your objectives may not require the accuracy of a multiplier based on a county survey

A different way to approach the problem is to use one of several semisurvey or nonsurvey methods you'll find them listed under References section 3 page 11

Another nonsurvey approach is to use multipliers from previously surveyed counties (or larger areas) that appear to be similar in economic structure to Cascades County

You can judge this similarity in economic structure (a matter of key importance) by comparing these surveyed counties with Cascades County Look for the characteristics that affect multiplier size

Factors affecting multiplier size

The most important of these factors is the degree of leakage Sectors that import a large share of their first round purchases (that is, have large leakages) generally have smaller multipliers than those that purchase a larger share of inputs locally

Other things being equal, the greater the leakages at any round of respending the smaller the multiplier The extent of leakages, however is very difficult to determine without a survey

In the absence of information about the extent of leakage in a given sector or economy you must look for characteristics of sectors or economies that tend to be related to the degree of leakage—and hence the size of the multiplier

Wood using an econometric model identified several factors that help explain the differences in multipliers between Oregon counties (References ' section 1 page 10)

Four factors that influence multiplier size along with the nature of their influence are identified in table 5

The three county characteristics are county population, income per capita and geographic isolation Since more populous counties provide larger markets and tend to develop more diversified economies with more opportunity for local respending of export dollars more populous counties tend to have larger multipliers

Income per capita is inversely related to multiplier size This relationship may reflect the tendency of households in high income counties to purchase more outside the county perhaps for luxury items and recreational activities

Greater geographic isolation (that is a longer distance to the nearest major trade center) leads to more local purchasing as a means of avoiding travel costs—hence larger multipliers

The age of an input output model also affects the appropriateness of using its multiplier estimates in a current analysis In the past 25 years, the service sector in the United States has grown relative to the rest of the economy providing opportunities for greater local spending and respending

Table 5 —*Some characteristics that influence multiplier size*

Type of characteristic	Nature of relationship between characteristics and multiplier
County related	
Population	The larger the population the larger the multiplier
Income per capita	The larger the income per capita the smaller the multiplier
Geographic isolation	The greater the distance to major trade centers the larger the multiplier
Model related	
Age of model	The older the model the smaller the multiplier

Table 6 —*Characteristics of the Oregon counties with Input Output models*

	Characteristics of county			
County	Year of model	Distance of the county seat from an SMSA (miles)[a] (+)	Population of the county in year of model (+)	Per capita income of the county in year of model (1980 dollars) (–)
Lincoln[b]	1963	83	24 971	$ 6 858
Grant	1964	193	7 434	6 514
Clatsop	1968	95	28 254	8 635
Klamath	1968	172	49 512	8 176
Douglas	1970	71	71 743	7 934
Tillamook	1973	74	18,902	8 944
Union	1974	176	21 200	9 189
Grant	1977	193	7 850	10 863
Clatsop	1977	95	31 269	9 565
Baker	1979	133	16 006	7 821
Morrow	1979	191	7 219	11 932
Mean	1972	134	25 851	$ 8 766

[a] Portland Salem and Eugene were the three Standard Metropolitan Statistical Areas (SMSAs) in Oregon during the period in which the input output models were constructed These are the three SMSAs used to determine distance along with Boise Idaho

[b] Yaquina Bay region

Thus multipliers based on older model probably understate today's multiplier effects in most counties The older the model therefore the more the multiplier understates the current multiplier effect

There are sector characteristics that probably also affect the size of the sectoral multipliers including size of plants in a sector degree of local ownership and labor intensity Sectors dominated by large plants tend to have smaller multipliers than those with many small plants for example

And sectors with a high degree of local ownership or that are labor intensive may be expected to have larger multipliers than capital intensive sectors or those dominated by absentee owned firms

Since data on these sectoral characteristics are not readily available however the next section focuses on the county characteristics and age of the model as factors that affect the appropriateness using existing multipliers as estimates of sectoral output multipliers in new applications

Using existing sectoral multipliers

Generally the more closely a county resembles an I O county and the more recent the I O model the more appropriate it is to use the I O counties sectoral multipliers We can judge similarity in terms of the characteristics identified in the previous section particularly the three county characteristics in table 6

The 1981 values of these characteristics for each of Oregon's 36 counties are presented in table 7 to help you make these judgments We cannot offer firm guidelines on the extent of bias introduced by using existing multipliers as estimates of multipliers in non I O counties

However we can presume for example that Tillamook County's 1973 lodging multiplier would underestimate Coos County's 1981 lodging multiplier because Coos county is larger is farther from a metropolitan area and has a lower per capita income in 1981—and because Tillamook County I O model is 8 years

Coos County s 1981 lodging multiplier would likely be larger than 2 4 the 1973 Tillamook County lodging multiplier

It will not always be the case of course that the three county characteristics all work in the same direction For example if you want to use Douglas County s 1970 *construction multiplier (2 1) to estimate* Josephine County s 1981 construction multiplier it would not be clear whether this Douglas County multiplier overestimated or underestimated the true Josephine County multiplier

Douglas County is larger than Josephine (which would suggest that its multiplier would overestimate Josephine s) however Douglas County has higher per capita incomes and is closer to an SMSA—and the model is 11 years old (which suggests that Douglas County s multiplier would under estimate Josephine's multiplier)

As a general guideline the less closely a county resembles the I O counties the greater the potential bias involved in using I O county multipliers for that county

In some cases it may be advisable to

- identify a range of multiplier values (perhaps the mean value plus and minus the standard deviation shown in table 4) or
- select several multipliers from similar counties and examine the sensitivity of impact estimates or forecasts when you use different multiplier values

Table 7 —Characteristics of Oregon s counties affecting multiplier size

	County	Distance to SMSA*	1981 Population	1981 Per capita personal income
1	Baker	133	16 300	8,315
2	Benton	35	70,050	8,776
3	Clackamas	—	245,100	10,811
4	Clatsop	95	32,600	9,559
5	Columbia	29	36 150	9,355
6	Coos	134	63 300	8,561
7	Crook	144	13 200	8,763
8	Curry	194	17 300	8,798
9	Deschutes	128	63,650	8,475
10	Douglas	71	92,300	8 644
11	Gilliam	151	2 025	10 219
12	Grant	193	8,150	8,447
13	Harney	191	8 000	8,560
14	Hood River	62	15 725	10,851
15	Jackson	166	133,700	8,676
16	Jefferson	118	11,950	8,473
17	Josephine	138	61,200	7,441
18	Klamath	172	58,625	8,704
19	Lake	261	7,600	8,713
20	Lane	—	275 000	9,026
21	Lincoln	83	35,530	9,462
22	Linn	24	90,300	8 744
23	Malheur	61	27 225	7 774
24	Marion	—	209 230	9,277
25	Morrow	191	7,375	10,917
26	Multnomah	—	561,900	12,548
27	Polk	—	46,650	7,826
28	Sherman	120	2,225	8,282
29	Tillamook	74	21,100	9 193
30	Umatilla	208	59,900	8,707
31	Union	176	24,450	8,353
32	Wallowa	239	7,300	8 972
33	Wasco	83	22,400	10,568
34	Washington	—	255 000	10,970
35	Wheeler	171	1,425	9,982
36	Yamhill	26	56,300	8,956

* Portland Salem Eugene and Boise (Idaho) SMSA s See Footnote a in table 6

Summary

Multipliers can be used (1) to estimate the total economic impact on a region of a proposed or current economic change, such as a plant expansion, plant closure or government investment, and (2) to make forecasts

Business output multipliers, as outlined in this circular measure the total change in sales resulting from a one-dollar increase in exports Sectoral multipliers for nine Oregon counties from 11 input output models have been presented

Significant variation was observed among sectors as well as among counties Several factors have been found to be systematically associated with this variation

If a nonsurveyed county is similar to a surveyed county in terms of these factors you may with some confidence use the surveyed county's multiplier as estimates of multipliers for the nonsurveyed county

In the more usual case (where the survey and nonsurvey counties are dissimilar) you will use your knowledge of how the counties differ to identify the reasons why the survey county multiplier may over or underestimate the nonsurvey county multiplier

In any case, the information about the average sectoral multiplier and variation in sectoral multipliers among surveyed Oregon counties should be of help to practitioners in putting bounds on multiplier estimates

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There is no charge for single copies of the Oregon State University Agricultural Experiment Station Bulletins and Circulars of Information, order from Bulletin Mailing Office, OSU, Corvallis 97331

For information about availability and ordering procedure of other Oregon State University publications (some of which may be out of print) contact the Department of Agricultural and Resource Economics at Oregon State University

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3 Nonsurvey techniques for estimating multipliers

a Economic base multipliers

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b Input output multipliers

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Morrison, W I , and P Smith, Nonsurvey Input Output Techniques at the Small Area Level An Evaluation," *Journal of Regional Science*, vol 14(1) 1-15 (1974)

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This publication was prepared by Thomas B Mandelbaum graduate research assistant Department of Agricultural and Resource Economics Oregon State University Stephen B Wood regional economist Bonneville Power Administration Portland and Bruce A Weber Extension community resource development specialist Oregon State University The authors acknowledge constructive review of an earlier draft by Stanley Detering regional economist Washington Oregon office Bureau of Land Management U S Department of the Interior Portland Donald Farness associate professor of economics Oregon State University and Frederick W Obermiller Extension community resource development specialist Oregon State University

Extension Service Oregon State University Corvallis O E Smith director This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30 1914 Extension work is a cooperative program of Oregon State University the U S Department of Agriculture and Oregon counties

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00079

GRANT COUNTY COURT
COURTHOUSE
CANYON CITY OR 97820
503 575-0059

24 November 1986

Mr Earl Layser
Ochoco National Forest
Box 490
Prineville, Oregon

Dear Mr Layser,

Thank you for your appearance before the Grant County Resource Council last month At our meeting the other night we agreed on comments in response to the proposed forest plan We grouped these a little differently from your reponse sheet, so please bear with us

1 The proposed plan and supporting documents are too big and much too complicated We realize you are trying to cover all your bases, but the product we have now discourages people from trying to wade through it. Perhaps alternatives could be worked out in general terms rather than fine detail, pending a decision on direction to work

2 We proposed that anyone who has the opportunity to participate in this planning process, and does not, should not then have the option to come in on appeal and hold up the implementation of the plan To allow this is to essentially say that the planning process is not sufficient, and negates the purpose of having a plan in the first place

3 Are the numbers accurate? One comment concerned an error in a grazing fee (sorry, I can't find page number now)

4 Related to #3--we believe the value of wilderness use is greatly exagerated

5 Related to #3--variation in big game use day~~s~~ ref B-72, B-64,65

6 In the interest of good timber management, with the interest of the sustained forest the primary goal, we think thinning and other management practices are not sufficiently emphasized We would urge a total resource management objective, including soil, water, and air as well as products such as grass and timber

7 The effects of various alternatives on school and county budgets needs to be followed

8. Costs of various alternatives was laid out, but the practical question of whether the funding was available was not addressed It seems there is a good possibility that an alternative could be chosen and then not followed if funding were cut off

9 We have a real concern for timber harvest. Are we over cutting on the short term and will find a sustained yield impossible? Have the cumulative effects on the regions timber supply of this plan and other forest plans been considered? Certainly we need to be aware of the capacity of the local mills, but we also need to think 20, 50 and 100 years into the future Here on the Malheur we are getting the effect of a reduced cut on the Wallowa-Whitman--mills in NE Oregon are coming in here for sales The regional timber supply should be sustained with the entire region in mind, considering haul time, reforestation potential, and all the other factors that go into meshing a timber harvest with a sustained yield

Thank you for the opportunity to comment

Sincerely,

Lorene Allen

Lorene Allen
County Judge

01085

CROOK COUNTY

889 North Main Street
Prineville Oregon 97754

December 17, 1986

Forest Supervisor
Ochoco National Forest
Box 490
Prineville, OR 97754

Supervisor:

The Crook County Soil and Water Conservation District would like to comment on the proposed Forest Plan.

1. Protect the land economy.

2. Protect natural resources but use them in a wise manner. Grass and timber are both renewable resources and are in better condition when they are in an active growing state than in a dormant stagnant one.

3. Cut down on permanent road building. Use temporary roads and seed them over. Paved hard surface roads contribute a lot to run off during storm. This can contribute to an undue amount of erosion.

4. Provide for 32,000 acres of old growth, and preserve the core of Lookout Mountain and Silver Creek as roadless areas

5. Provide more tree thinning in stands that will respond.

6. Use the present level of firewood availability.

7 Use a combination of B Plus and E Departure Round off the edges and make it work.

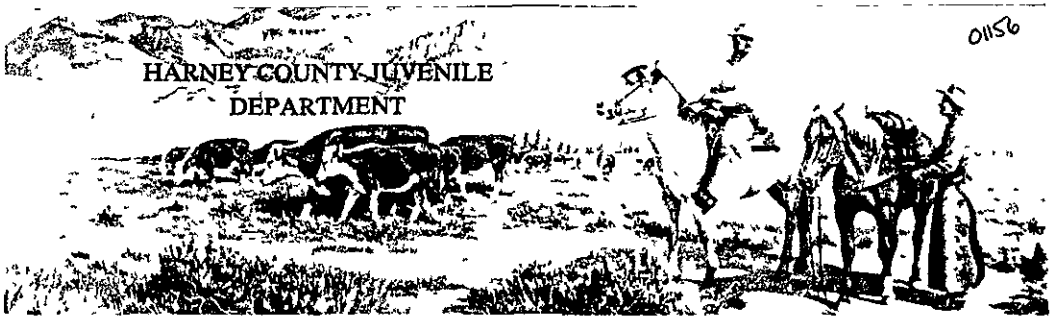
We emphasize the need for proper soil and water stewardship. We also emphasize the need for man to utilize these and not just sit on them.

Thank you for your consideration, and Good Luck!

Crook County SWCD

Richard Breese, Secretary
Richard Breese

01156



HARNEY COUNTY COURTHOUSE 450 N BUENA VISTA - BURNS OREGON 97720

December 17, 1986

Forest Supervisor
Ochoco National Forest
P.O. Box 490
Prineville, OR 97754

Dear Forest Supervisor:

The Harney County Juvenile Department wishes to convey our concerns to you regarding the forthcoming decision for the Ochoco National Forest Management Plan.

We are concerned about possible cutbacks in the lumber industry and the effects this would have on families and youth in Harney County. Our recent past experience has proven that high unemployment rates cause family disintergration and increased Juvenile delinquency Only recently has Harney County begun to climb out of the economic depression we have endured since early 1980. We believe the forest is big enough for all users without negatively impacting any of them if it is managed properly.

We urge you to carefully consider the impact a decrease in lumber production would have on Harney County families. We further recommend that present firewood availability remain at the present level

Thank you for your consideration in this matter.

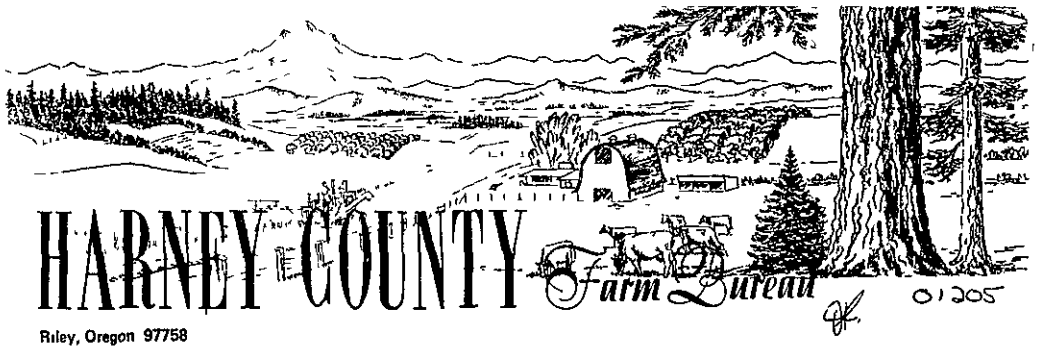
Sincerely,

Mary Hanneman

Mary Hanneman, Court Director

cc: Jim McClain
Donald G. Witte

LIVESTOCK -- RECREATION WILDLIFE LUMBERING



01205

Box 1193
Burns, Oregon 97720
December 18, 1986

Dear Forest Supervisor

Please consider these comments to the Ochoco Forest Plan:

First and primarily it must be recognized you are a National Forest As such you are not designated as a park. Your responsibility should not be preservation as in wilderness, but rather preservation as in production. Production takes many forms including, but not limited to, recreation opportunities of all kinds, wildlife habitat, firewood, Christmas trees, grazing AUMS and commercial timber sales. Of these the last two probably have the most impact on the econom/ of the area

Jobs are the key to judging the successful management of the Ochoco Other benefits will continue regardless, if the highest possible production is obtained By all means, erosion and other man caused activities must be managed. Only through such careful measures can production be perpetuated Allowed harvest must not exceed the capacity of the land to reproduce

However, no creature can look far enough into the future to determine what limits of timber cutting or grazing will be desired to maintain a perpetuating production There are absolutely too many variables that cannot be accurately predicted Weather, fire, disease and insects all will have their effect.

Therefore, it makes no sense to establish a timber cutting program that is not flexible, that is not now in production and at or near the prime harvest stage Due to economics, timber that is ripe for harvest may not always be saleable; as witness the very recent past.

It makes no sense to overgraze forage and it makes no sense not to graze available feed. Under-harvest does nothing to improve the grass or the economy, also true of rotting trees. True, an attempt to average should be made, but in the case of grazing, an annual evaluation is critical; which is somewhat different than a timber crop that takes many years to produce.

Studies now appear to indicate riparian areas should be stocked with livestock or game to maintain their natural condition as has gone on for eons. Nature should be allowed to take its course along streams although upstream impoundments do appear to be highly beneficial from all aspects.

Firewood is a desirable side product of the forest and there is no reason all local need cannot continue to be met. We would estimate ten times as much wood rots or burns in the forest every year than is ever used domestically

To summarize·

1. AUMS should be increased to utilize all forage to a degree that perpetuates its production and be under constant review to avoid erosion.

2. Timber harvest can be more easily determined on long range projections and should not be increased even temporarily unless such increase can be sustained over a long period of time.

3. Upstream impoundments should be constructed to improve water quality, improve game habitat, improve riparian areas and improve recreation with little if any effect on production of timber or game

4 Domestic uses should receive highest priority for accommodating the needs of surrounding residents

5 No management plan should adversely affect the economy or lifestyle of communities nearby

Sincerely,

Harney County Farm Bureau Board of Directors

Herb Davis

Herb Davis, President

Donna Hurlburt

Donna Hurlburt, Secretary

CROOK-WHEELER COUNTY Farm Bureau
417 North Main Prineville, Oregon 97754

01479

December 19, 1986

To. Forest Supervisor
Ochoco National Forest

From Crook-Wheeler County Farm Bureau

Subject Proposed Plan Ochoco National Forest

The Board of Directors of the Crook-Wheeler County Farm Bureau on behalf of its 336 members in Crook and Wheeler Counties wishes to respond to the proposed Forest Plan for the Ochoco National Forest.

Farm Bureau at the county, state and national level solidly supports the multiple use concept of federal land management We do not support the addition of any lands for wilderness designation Furthermore, we do not support the set-a-side of any lands for wildlife habitat.

We believe that a plan can, and should, be selected that would maximize the utilization of the renewable resources without endangering any one phase of the multiple use concept. We feel at this time, none of the proposed alternatives meet this criteria. The final plan should blend certain elements of the several proposals to achieve the multiple use concept

Signed Greg Merritt, President
CROOK-WHEELER COUNTY FARM BUREAU

Greg Merritt

01481

Crook County Court

PHONE (503) 447 6555

DICK HOPPES, Judge
FRANCES BURGESS Commissioner
VERN ATWOOD, Commissioner

CROOK COUNTY COURTHOUSE
PRINEVILLE OREGON 97754

December 18, 1986

Forest Supervisor
Ochoco National Forest
Box 490
Prineville, Oregon 97754

Statement of the Crook County Court in response to the proposed Ochoco National Forest Plan - preferred alternative.

Dear Mr. Rittersbacher,

It would occur to the members of the Crook County Court that to reply in depth and specific detail to a study of the Ochoco National Forest which has been undertaken for the past several years, would be quite impossible in this short review period.

However, we consider the potential consequences of the final adoption and implementation of the plan, to be so highly significant to the local long range economy and quality of life in this area that we must address those areas of most questionable affect.

Since you will be receiving documents from more technical sources on specifics, we would submit a more philosophical approach.

The Court questions the wisdom of implementation of any of the plans. Rather it would appear to us that the multiple use, sustained yield concept under which the forest has been managed for the past several years is still the most viable plan. This is not to say it has been perfect, nor that the term multiple use may be misconstrued, but why burn the barn down to rid the mice, when the management system has been quite effective over the past several years.

We would remind all involved that it is interpretation and quality of personnel which makes a process effective, rather than the plan itself.

The Court would encourage the Forest Service to maintain and if possible, increase the amount of intensively managed land for timber production.We feel also that the area of land should be

left whole, for all useable purposes, rather than having set aside areas for specfic purposes. Proper management of the whole will provide for all uses, rather than inferior management by property lockup.

We feel that there should be greater emphasis on reforestation, on bug control and on salvage, none of which appeared to be well addressed, if addressed at all in any of the plans.

The two areas which would be most manageable would be to plant more trees and develope a creditable system for salvage of timber from bug kill, blow down, lightning strike, fire and other types of disease.

In the past thirty years I have failed to hear the charge that from "30 to 50 million board feet of lumber is lost annually in our forest", disputed by members of industry or Forest Service personnel.

Appropriate provisions for a consistant salvage program could have a profound effect on maintenance of sustained yield and at the same time reduce that element of our wastefulness and lack of stewardship

We do feel that a few reasonable corridors should be protected, such as, Highway 26, the road to Walton Lake and possibly two or three more, where travel is or probably will become significant

Finally, we would submit that we have three wilderness areas in the Ochocos, none of which met the federal criteria for wilderness designation, however, they are set aside and we believe the future will prove the wisdom of the designations in spite of the political motivations.

In this context, however, it is the unanimous opinion of the County Court that we can ill afford any further roadless areas, or large areas set aside for single purpose situations.

There does not appear to be any unchallengeable, factual evidence that the existence of the pileated woodpecker or continued existence of other forms of wildlife or the management of game animals cannot be dealt with in harmony and compatibility with the harvest of timber throughout the entire Ochoco range.

We would encourage the re-opening of the road to the top of Lookout Mountain even if on a controlled basis for the enjoyment of the view for the elderly and handicapped.

We would encourage a selective cut harvest of the Forest, rather than even or clear cut.

In spite of periods of controversy over the years, it is our opinion that the Ochoco National Forest has been competently managed. We feel that drastic changes as proposed by the E departure plan are wrong, unnecessary, detrimental to the economy and would not serve the best long range interests of any of the various factions.

It is our belief that those involved in the forest products industry, the cattle rancher, environmentalist, hunter, game biologist and those for recreation can co-exist, utilizing the entire forest. We believe that the U.S. Forest Service has both a policy and a moral obligation to continually seek procedures which will protect the long term economic stability of our Community.

Respectfully submitted,
Crook County Court

Dick Hoppes

by Dick Hoppes, Judge

DH/cm

02057

01484

Jefferson County

Courthouse
657 C Street
Madras, Oregon 97741
Telephone (503) 475-2317

December 19, 1986

David Rittersbacher, Forest Supervisor
U. S. Department of Agriculture
Ochoco National Forest
P. O. Box 490
Prineville, Oregon 97754

Dear Mr. Rittersbacher:

After studying the Economic Impact Analysis, submitted by Brian Long, and attending the December 12, 1986 C.O.I.C. meeting and hearing testimony regarding this analysis we, the Jefferson County Court, would like to go on record that we oppose the Ochoco National Forest, E - Departure, plan.

It is our opinion that if 50,000 acres must be set aside, then this should be for the use of selective logging and not for any other purposes.

In conclusion, the economic impacts that this plan would have would adversely affect Central Oregon Industry.

Sincerely,

Herschel Read

HERSCHEL READ
Jefferson County Judge

City of Prineville

400 EAST THIRD STREET
PRINEVILLE OREGON 97754
447 5627

The following endorsement was adopted by the City Council on December 17, 1986:

"The City Council of the City of Prineville hereby endorses any modifications to the Ochoco Management Plan which would maintain or increase timber related employment through:

A. Intensively managing a balanced timber base suitable for all uses of the forest.

B. Increasing salvage programs to maximize timber production.

C. Stewardship of land be included in grazing application.

We feel that a major factor to be considered in managing the forest is economic stability of the local community and our quality of life."

Henry Hartley
City Administrator

CITY OF PRINEVILLE

01485

PRINEVILLE-CROOK COUNTY CHAMBER OF COMMERCE
LEGISLATIVE COMMITTEE

699 Ochoco Ave , Prineville, Ore 97754

JIM HOWARD Chrmn
CHUCK BOYDEN V Chmn

EDYTHE NEWELL Sect Treas

FRANCES BURGESS County Commissioner
ALTA CHALFANT Senior Citizens
RICK CHRISINGER County Librarian
LASELLE COLES Retired Water Dist Mgr
ARLENE DEITZ Accountant
CHARLES DEITZ Banker
ELAINE DONNELL Cable TV
DAVE DOTY Prin C C High School
GERI ELICH School Librarian
BOB FICKARDT Retired Rancher
H B FOWLER Retired Railroader
BOB GERLACH Mgr Pacific Power
DICK HOPPES County Judge
LANNY LYLE Vice Pres. Les Schwab Tires
TERI LOWRY News Reporter
GERALD MAGNUSON B L M
DAVID MANLEY Supt Crook Cty Schools
GEORGE NEWELL Farmer
JAMES PETERSEN Dentist
GEORGE PIFER Admin Hospital
JERRY PIMENTEL Teacher
TOM POWELL Owner Mobile Trlr Court
ELINORA REAL Retired
DAVE RITTERSBACHER U S Forest Service
PAUL ROWAN Retired Cable TV
LINDA SHELK Central Ore E D
M D SINCLAIR Realtor
DR IRV SMITH Chiropracter
GARY THOMPSON Dist Attorney
ED VAN WINKLE Retired Insurance Broker
B J WIGGS Gen Mgr Railroad
MYRTLE WILLIAMS Homemaker
CLAUDE WILLIAMS Rancher
GEORGE WITTMER Retired Feed Store Owner
ELON WOOD M.D Retired

December 18, 1986

Mr. Dave Rittersbacher
Ochoco Forest Supervisor
Federal Building
Prineville, Oregon 97754

Dear Mr. Rittersbacher:

It was voted unanimously to convey to you the following resolution passed by a recent meeting of the Legislative Committee of Prineville-Crook County Chamber of Commerce:

"Be it hereby resolved by the Prineville-Crook County Chamber of Commerce Legislative Committee that we support any modification to the Ochoco National Forest Plan which would maintain or increse timber-related employment through

(a) intensively managing the land base suitable for commercial production and

(b) increasing the salvage program to maximize timber production. "We feel that the most important factor to be used in managing the forest is the economic stability of the local community and our quality of life"

There were 35 members of the committee present and voting.

Sincerely,

Jim Howard, Chrmn.
Legislative Committee

01742

COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION
975 S.E. Sandy Boulevard Suite 202, Portland Oregon 97214 Telephone (503) 238-0667

RECEIVED
DEC 23 1986
7TH Floor Support Group

December 19, 1986

Mr. James Torrence
Regional Forester
Pacific Northwest Region
319 S.W. Pine
P.O. Box 3623
Portland, OR 97208

Dear Mr. Torrence,

The Columbia River Inter-Tribal Fish Commission appreciates this opportunity to comment on the Draft Environmental Impact Statement (DEIS) and the proposed Ochoco National Forest Plan. The Commission is composed of the Fish and Wildlife Committees of the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes and Bands of the Yakima Indian Nation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe. These four tribes have rights reserved by treaty to take fish that pass their usual and accustomed fishing places. Among these fish are the anadromous species that originate in the Ochoco National Forest.

The Nature of the Treaty Right

The tribes' right to take fish that pass their usual and accustomed places is a right confirmed by numerous court decisions. See e.g., Sohappy v. Smith, 302 F.Supp. 899 (D. Or. 1969), aff'd, United States v. Oregon, 529 F.2d. 570 (9th Cir. 1976); Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n, 443 U.S. 658 (1979) (Passenger Fishing Vessel). In addition to binding state governments, See Passenger Fishing Vessel 443 U.S. at 682 and n.25, the treaties are also binding on private citizens, See e.g., United States v. Winans, 198 U.S. 371 (1905), and, of course, the federal government. Passenger Fishing Vessel, 443 U.S. at 682; See also Confederated Tribes of the Umatilla Reservation v. Alexander, 440 F. Supp. 553 (D. Or. 1977). Absent specific authorization by Congress, Indian treaty rights cannot be abrogated. Id., citing Menominee Tribe v. United States, 391 U.S. 404, 413 (1968)).

In Passenger Fishing Vessel, the Court painstakingly examined the circumstances surrounding the negotiation of the treaties in an attempt to define the parties' long-term intentions. The Supreme Court emphasized that Governor Stevens invited the Tribes to rely on the United States' good faith efforts to protect their right to a fisheries livelihood. Stevens specifically told the tribes: "This paper [the treaty] secures your fish." Id. at 667 n.11. During the treaty negotiations, "the Governor's promises that the treaties would protect that source of food and commerce were crucial in obtaining the Indians' assent." Id. at 676 (emphasis added). As the Supreme Court stressed:

> *It is absolutely clear*, as Governor Stevens himself said, that neither he nor the Indians intended that the latter "should be excluded from their ancient fisheries," . . . and it is accordingly inconceivable that either party deliberately agreed to authorize future settlers to crowd the Indians out of any meaningful use of their accustomed places to fish.

Id. The Supreme Court also mentioned that the treaty guaranty of "the right of taking fish" was meaningful only if fish were available for the taking. Id. at 678 (emphasis added).

The 130 years since the treaties were signed have witnessed a truly startling number of methods by which the quantity of fish available for the taking could be reduced -- if not decimated. The courts have responded to these threats to the treaty right by declaring a policy that the treaty right cannot be defeated by technology or other methods not anticipated by the treaty signatories. For example, in United States v. Winans, 198 U.S. 371 (1905), the defendant constructed a fish wheel (a device capable of destroying an entire run of fish) and excluded the Indians from one of their usual and accustomed fishing places. *Commenting on the effects of improved fishing devices*, the Court noted that:

> wheel fishing is one of the civilized man's methods, as legitimate as the substitution of the modern harvester for the ancient sickle and flail . . . It needs no argument to show that the superiority of a combined harvester *over the ancient sickle neither increased nor* decreased rights to the use of land held in common. In the actual taking of fish white men may not be confined to a spear or crude net, but it does not follow that they may construct and use a device which gives them exclusive possession of the fishing places, as it is admitted a fish wheel does.

Id. at 382. Thus, although improved technology may be brought to bear on the fishery, that technology cannot be allowed to imperil the rights secured to the parties to the treaty.

This result was reaffirmed by the Supreme Court in Passenger Fishing Vessel. There the Court declared that "[n]on-treaty fishermen may not rely on property law concepts, devices such as the fish wheel, license fees, or general regulations to deprive the Indians of a fair share of the relevant runs of anadromous *fish in the case area*." *Passenger Fishing Vessel, 443 U.S. at* 684. The Court's intent is clear: absent specific treaty abrogation legislation from Congress, (Menominee Tribe v. United States, 391 U.S. 404, 413 (1968)), no one may use any method to deprive treaty fishermen of their fair share of the anadromous fish.

Federal Duty to Protect Subject Matter of Treaties

In addition to their obligation to not destroy Indian treaty rights without specific Congressional action, federal agencies must use their authority to safeguard that which is the subject matter of federal treaties. In Kittitas Reclamation District v. Sunnyside Valley Irrigation District, 763 F.2d 1032 (9th Cir. 1985), the Ninth Circuit affirmed a district court order to operate a Yakima water project in a manner that would preserve spring chinook salmon redds. Federal project operators had originally sought to reduce water releases in order to store water for the next irrigation season. The proposed flow reductions would have left the redds high and dry. Testimony at the district court hearing indicated that the proposed water storage would be possible if twelve redds were transplanted or if berms were constructed. Id. at 1035. However, the district court judge was "unsure of the effect of these measures, so he continued the watermaster's authority to release water as necessary." Id. Expressly declining to decide the scope of the Yakima Indian Nation's treaty fishing rights, Id. at n.5, the Ninth Circuit found that the district court judge had fashioned a reasonable remedy. Id.

The message in Kittitas is clear. Federal agencies are obligated to exercise their authorities in a manner that will protect -- not degrade -- the habitat needed to support anadromous fish. In addition, when addressing anadromous fish habitat needs, various measures may be utilized, but the final choice turns not on traditional notions of agency expertise, but on the biological needs of the fish.

Magnitude of Fisheries Reserved by Treaty

The Forest Service's duty to *protect and enhance anadromous* fish habitat does not cease once a fish run becomes viable. The tribes did not reserve a right to take a few fish from a meager run struggling for survival. Some might argue that the Columbia River treaty tribes reserved the right to continue harvesting that number of fish that they had traditionally harvested.

Obviously, that harvest level is not yet possible given the contemporary depleted fisheries. The Supreme Court has held that both Indian and non-Indian fishermen possess a right, "secured by treaty, to take a fair share of the available fish." Passenger Fishing Vessel, 443 U.S. at 684-85. The Court determined that Indian harvest allocation should not exceed 50% of the harvestable fish. Id. at 685-86. The Court then declared:

> It bears repeating, however, that the 50% figure imposes a maximum but not a minimum allocation . . . [T]he central principle here must be that Indian treaty rightsto a natural resource, that once was thoroughly exclusivelyexploited by the Indians, secures so much as, but no more than, is necessary to provide the Indians with a livelihood -- that is to say, a moderate living. Accordingly, while the maximum possible allocation to the Indians is fixed at 50%, the minimum is not, the latter will, upon proper submissions to the district court, be modified in response to changing circumstances. Id. at 686-87.

Perhaps the reason why this "moderate living standard" unearthed by the Supreme Court has not proven to be a truly thorny problem in Pacific Northwest fisheries management is because no one can reasonably contend that the Indians' harvest presently yields a moderate living. This fact was implicitly acknowledged by the Supreme Court in Passenger Fishing Vessel when it stated that the 50% ceiling on the Indians' harvest allocation was necessary "to prevent their needs from exhausting the entire resource and thereby frustrating the treaty right of 'all [other] citizens of the territory.'" Id. at 686.

Regardless of what the term "moderate living standard" means, it will eventually be defined by the judiciary -- not a federal agency See Id. at 687. As discussed earlier, the Ninth Circuit has already determined that federal agencies must refrain from taking actions that will reduce the number of fish in a depleted run. See Kittitas, 763 F.2d at 1035. Nor does this duty cease when an anadromous fish run manages to increase its numbers beyond the dangerous level of minimum viability. In United States v. Adair, 723 F.2d 1394 (9th Cir. 1984), the Ninth Circuit stated that:

> Implicit in this "moderate living" standard is the conclusion that Indian tribes are not generally entitled to the same level of exclusive use and exploitation of a natural resource that they enjoyed at the time that they entered into the treaty reserving their interest in the resource, unless, of course, no lesser level will supply them with a moderate living. Id. at 1415 (emphasis added).

Here the Ninth Circuit has indicated that the Klamaths must be allowed to achieve their "moderate living." No one knows what that is. The court explicitly stated the possibility that the

"moderate living standard" may only be achieved by allowing the tribe to enjoy the "same level of exclusive use and exploitation" it had at the time the treaty was concluded. Id. The purport of this holding is clear. Federal agencies owe a duty to refrain from activities that will interfere with the fulfillment of treaty rights. Moreover, this duty cannot be performed by engaging in an "accommodation" or "balancing" process between Indian treaty rights and a competing economic interest such as timber harvest. Any such "accommodation" reached by the Forest Service would amount to a de facto abrogation of Indian treaty rights. In the context of forest management, unless the Forest Service can demonstrate that the tribes' treaty rights are presently being fulfilled, it cannot justify approving activities in the forests that will cause further degradation of anadromous fish habitat.

The National Forest Management Act Mandates Coordination

The Forest Service is only one of the many entities involved in the complex interactions that have caused the diminution of anadromous fish runs to their present state. Columbia River hydroelectric development and other downstream problems have done grievous harm to the basin's fish runs. While the Forest Service can rightfully blame downstream problems for much of the harm inflicted on anadromous fish, such blame does not obviate the Forest Service's responsibility to protect anadromous fish and the need for all parties with management authority that affects these fish to work together to improve the fishery resource.

In dealing with anadromous fish, the Forest Service must look beyond the boundaries of a given national forest. Columbia River stocks of anadromous fish migrate as far inland as the Bitterroot National Forest and as far north as Alaska. As the Pacific Northwest has come to realize, the anadromous fish runs can only be restored if state, federal, and tribal land, water, and wildlife managers adopt a coordinated "gravel-to-gravel" management approach to this valuable and mobile renewable resource.

This approach is reflected by the Northwest Power Planning Council's Columbia River Basin Fish and Wildlife Program. The Fish and Wildlife Program, mandated by the Pacific Northwest Electric Power Planning and Conservation Act, 16 U.S.C. Section 839b (1982), encompasses the Columbia River and its tributaries and will be financed by Pacific Northwest ratepayers. This comprehensive protection, mitigation, and enhancement effort does not appear to be integrated into the DEIS or proposed plan. Nor were the increased fish returns made possible by the recently concluded United States/Canada Salmon Interception Treaty, See 16 U.S.C. Section 8396 (1985 Supp.), mentioned in either document.

These efforts, along with the Salmon and Steelhead Enhancement Act, have changed the complexion of fisheries management in the Columbia Basin. The success of both the Salmon Interception Treaty and the Fish and Wildlife Program turn upon maximizing utilization of the anadromous fish habitat in Columbia River tributaries. A large percentage of these tributaries run through national forests. The Forest Service must acknowledge its responsibilities to act in concert with these policies. The Forest Service cannot make a reasoned decision with respect to anadromous fish habitat if it does not factor these activities into its decision-making process. The Pacific Northwest cannot afford to spend money enhancing fisheries that are simultaneously being degraded by timber harvest, road-building, and grazing.

Forest Service coordination with Pacific Northwest fisheries enhancement activities is not only sound policy; it is also required by law. Forest Service regulations declare that a review of state, federal, and tribal planning and land use activities shall be included in the forest plan EIS. See 36 C.F.R. Section 219.7 (a)-(c) (1984). In addition, the regulations provide that this review shall consider the objectives of federal, state, local, and tribal governments, inter-related impacts of these plans, and a decision by the Forest Service on how each forest plan shall address these inter-related impacts. Id. at (c)(1)-(4). Among the objectives of federal, state, and tribal governments are the fish production plans currently being formulated under the auspices of United States v. Oregon, the Fish and Wildlife Program, and the Salmon Interception Treaty. The Ochoco National Forest DEIS and proposed plan do not reflect the consideration of these processes required by the NFMA.

Anadromous Fish Assessment

As a consequence of its federal mandate to protect, mitigate, and enhance fish and wildlife while assuring the Pacific Northwest an adequate and economical power supply, the Northwest Power Planning Council is currently estimating the location and extent of anadromous fish in the Columbia Basin. This assessment will:

> estimate the resource value by characterizing the productivity of each stream reach. Productivity is defined to be comprised of three factors: smolt production, migration use and upstream geography which may, through sedimentation, affect downstream anadromous fish areas. This study will quantify the smolt productivity of each stream reach. Migration will be accounted for by including in any estimate of smolt production for an individual stream reach upstream productivity as well, i.e, the productivity will accumulate as one moves down a stream. Stream reaches upstream of anadromous fish areas which have the potential to adversely affect downstream use will be identified quantitatively.

See Northwest Power Planning Council, Proposed Work Plan Pacific Northwest Hydro Assessment Study (August 1, 1984) at 3. The results of this study will provide the most current and comprehensive examination of Columbia Basin anadromous fish production capability available. This study will be used to identify areas and stream reaches that, due to their value to fish, should be protected from hydroelectric development. It would be wasteful and expensive indeed to invest money in habitat enhancement and protection only to have those efforts smothered by sediment generated by logging and roadbuilding. The Forest Service and anadromous fish managers from federal, state, and tribal governments should coordinate to make sure that the information generated by this study will foster the most judicious resource utilization possible.

Cumulative Impacts

There are 17 national forests in the Columbia basin that produce anadromous fish. These are: the Clearwater, Nezperce, Bitterroot, Boise, Challis, Payette, Salmon, Sawtooth, Umatilla, Wallowa-Whitman, Mount Hood, Malheur, Ochoco, Gifford Pinchot, Okanogan, Willamette, and Wenatchee. All of them are going through the forest planning process. Approximately 50 to 70% of all remaining anadromous fish habitat is contained in these forests. Events on these forests will have a profound impact on the anadromous fish resource that is vital to the welfare and existence of the four treaty tribes.

Unfortunately, the Forest Service does not seem to realize that each forest is an important cog in the machine that will either revive the fish runs or slowly log, road, graze, or mine them into oblivion. To adequately assess the environmental impacts of its actions as required by NEPA, the Forest Service must study and disclose the cumulative impacts of all 17 forest plans listed above on the Columbia River anadromous fish runs and the four Columbia River treaty tribes. It is simply not adequate for each forest to merely look at the impacts of its activities within the borders of the forest or in the surrounding communities and counties. Nor is it adequate for the Forest Service to baldly assert that it has assessed cumulative impacts while offering absolutely no evidence that it has made any such consideration. Fish production precluded by activities within each forest and in conjunction with other forests affects not only surrounding communities, but also downstream Indian tribes and other fishers both inriver and in the ocean.

Adequate assessment of cumulative impacts requires a certain management worldview. It requires that managers of land, water, or fish realize that even though they may only have management

authority over a relatively small aspect of the anadromous fish lifecycle, their management decisions may have a decisive impact on other fishery management decisions or the fishery resource itself. This is by no means a revolutionary concept. In fact, the Forest Service avails itself of this management approach every time it asserts that the reason that basin fish production is not any higher is because of downstream passage mortality and harvest management. The Forest Service is correct when it states that harvest and passage considerations are important to the *overall health of the Columbia basin* anadromous fishery. However, fish production, both natural and hatchery, is also equally important. The Forest Service is directly responsible for natural fish production occurring on national forest lands. Pointing accusatory fingers at other entities does not relieve the Forest Service of its duty to ensure that its management will not adversely affect already depleted naturally producing stocks.

The idea that proper fishery management requires coordination of harvest, passage, and production needs has been around for a number of years. It is embodied in the Pacific Northwest Electric Power Planning and Conservation Act enacted in 1980. See 16 U.S.C. Section 839b(h) (1982). It is also an integral aspect of the Northwest Power Planning Council's efforts to coordinate restoration of Columbia basin fisheries to the extent affected by hydroelectric power production. See e.g. Northwest Power Planning Council, Salmon And Steelhead Planning, *Staff Issue Paper (June 3, 1986)*:

> A gamut of potential problems may result from uncoordinated actions. Fish production investments may be in conflict. Power system operations may diminish production or offset increases in production. *Harvest practices could prevent* escapement in adequate numbers to ensure sustained increases in yield. The mixed-stock harvest could undermine passage actions designed to protect or enhance certain stocks of fish. Harvest and power needs may not be sufficiently defined to guide production efforts. Production decisions may be made without full regard to harvest needs and to power system constraints with respect to passage. Land and water management actions may undermine fish production investments.
>
> When actions are taken in the absence of a system perspective, there also may be too little recognition of the spectrum of choices among production, passage and harvest actions. Actions may be taken without consideration of the full range of alternative means to *achieve objectives*. Actions may be taken with inadequate analysis of their likely effectiveness. As a result, there is no assurance that a given action achieves sound biological objectives at the minimum economic cost.

> Moreover, in the absence of a system perspective, monitoring and evaluation of actions may be uncoordinated, lacking, short-term, sporadic, or narrow in focus.

Id. at 8.

There are many who consider the need to provide for increased natural fish production to be a major constraint on anadromous fish harvest regimes. The tribes have foregone harvest of fish, to which they are legally entitled, for the purpose of providing increased escapement of naturally spawning adults. Despite these efforts, and despite the increasing numbers of returning adults (many of which are hatchery fish), the tribes are under pressure to further forego harvest opportunities. *Forest management that will cause reduction in* natural fish production will further exacerbate this situation. Reductions in natural fish production directly conflict with the tribes' treaty rights.

The Forest Service has often informed CRITFC and tribal staff that the Forest Service is only *responsible for supplying* smolt habitat capability and that there is far more capable habitat than there are smolts. The Forest Service's responsibilities include more than merely furnishing a given amount of habitat. The Forest Service must identify that which is being utilized by fish and, to the extent it can, that which will be utilized through either United States v. Oregon or Fish and Wildlife Program enhancement. Part of the concern behind protection of naturally spawning stocks is the desire to protect unique gene pools that will be needed to restore the basin's fisheries. For a recent discussion of the role of genetics in *Columbia basin fisheries management, see Northwest Power Planning* Council, Salmon And Steelhead Research, Staff Issue Paper (June 3, 1986).

Mitigation

The Forest Service has often relied upon mitigation in the hope that mitigation will compensate for the damage inflicted on fish habitat by timber harvest. However:

> Mitigation of fish habitat losses is often presented as a panacea and substitute for maintenance of habitat quality. The concept of "fisheries mitigation" is more myth than substance. It seldom materializes and when it does, it only *partially compensates for substantial losses*. There is no history of fisheries budgets sufficient to mitigate substantial losses of quality habitat. Recent and projected budget trends indicate a status quo situation.

See Espinosa, Background Paper Fisheries Resources Analysis of the Management Situation Clearwater National Forest (undated) at 56-57 (emphasis in text). The Commission is unfortunately acutely aware of the vagaries and inadequacies of fisheries mitigation. Thus, we are extremely skeptical of vague promises of best management practices, implementation of standards and guidelines, and reliance on enhancement to mitigate management impacts on fish habitat.

Given the importance of the anadromous fish resource, very little reliance should be placed on mitigation measures that do not have a proven record of effectiveness. The Forest Service must be careful to not ask more of a mitigation technique than it can give. New or untested mitigation techniques should be thoroughly evaluated before being widely used and relied on. Monitoring should be vigilant, stringent, and should include all entities that are involved in the management of anadromous fish. Finally, mitigation methods should be chosen on the basis of the protection they will provide the fishery resource, not how much they will affect the cost/benefit analysis of commodity resources such as timber, range, and mineral extraction. See e.g., Pacific Power & Light Co., Opinion No. 381-A, 30 F.P.C. 499 (1963), aff'd in part, rev'd in part on other grounds, 333 F. 2d 689 (9th Cir. 1964), cert. denied, 379 U.S. 969 (1965) (where it is declared that it is the policy of other federal agencies to require complete recompense for fisheries damage.) The DEIS should be revised to include analyses of known mitigation techniques. These analyses should include evaluations of effectiveness, standards for application, and any other information that might be of aid in deciding whether a given mitigation technique is appropriate. Is reliance on habitat enhancement as mitigation appropriate in the face of the current federal budget crunch? The Commission will be happy to contribute its expertise towards evaluating the use of various mitigation methods on a case-by-case basis.

Trust Responsibility

The trust responsibility is that special relationship between the United States and Indian tribes that originated in Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1 (1831) where the Supreme Court described Indian tribes as "domestic dependent nations" and declared that "their relation to the United States resembles that of a ward to his guardian." Id. at 17. This relationship is part of the very fabric of federal Indian law and it imposes stringent fiduciary standards of conduct on federal agencies in their dealings with Indian tribes. See United States v. Creek Nation, 295 U.S. 103 (1935). See also Northern Cheyenne Tribe v. Hodel, Civ. No. 82-116-BLG (D. Mont. May 28, 1985) at 23.

In Northern Cheyenne Tribe, the court declared that "a federal agency's trust obligation to a tribe extends to actions it takes off a reservation that uniquely impact tribal members or property on a reservation." Id. at 27. In an attempt to save its coal leasing EIS from invalidation, the Secretary of the Interior alleged that there was no specific statute or treaty that required the Department to consider the impacts of coal leasing on the tribe as an entity. Id. The Secretary also alleged that his decision to lease the coal was in the "national interest" and "vital to the nation's energy future." Id. at 29. The court declared that:

> The Secretary's conflicting responsibilities and federal actions taken in the "national interest," however, do not relieve him of his trust obligations. To the contrary, identifying and fulfilling the trust responsibility is even more important in situations such as the present case where an agency's conflicting goals and responsibilities combined with political pressure asserted by non-Indians can lead federal agencies to compromise or ignore Indian rights.

Id. at 29-30 (citations omitted). Similarly, the Forest Service must not allow its obligations to the Columbia River treaty tribes to become lost in its concern for the local citizenry. It must accord the treaty right special consideration and scrupulous safeguards. Unfortunately, the DEIS did not devote this consideration to the tribes' interests.

The Forest Service owes a duty to not only discuss the effects of forest management activities on the tribes, but also a duty to safeguard resources of crucial importance to the tribes. This duty is not fulfilled by actions which sanction degradation of fish habitat needed to re-build the Columbia River runs.

Sales Below Cost

Over the years, fish and wildlife concerns have often been subordinated to the needs of allegedly more economically valuable, but environmentally damaging commodities such as timber harvest, irrigated agriculture, grazing, and hydrolectric power production. Thus, it is not without some ironic amusement that the Commission observes the current controversy over unprofitable timber sales. Those who have advocated resource decision-making primarily on the basis of short-term economic gain suddenly find themselves "hoisted on their own petard." Perhaps this role reversal will convince all those involved in natural resource decision-making that cost/benefit analysis is at best an "unfaithful lover" and that resource decisions are best grounded on other bases.

The Commission is not automatically opposed to "sales below cost" per se What concerns us is that the DEIS contains no assurance that any of the timber sales proposed for the next 50 years will actually recover its real costs. The NFMA regulations require that the Forest Service "shall compare the direct costs of growing and harvesting trees, including capital expenditures required for timber production, to the anticipated receipts to the government...". See 36 C.F.R. Section 219.14(b) (1984). "Direct costs" are defined to "include the anticipated investments, maintenance, operating, management, and planning costs attributable to timber production activities, including mitigation measures necessitated by the impacts of timber production. Id. at Section 219.14(b)(2) (emphasis added).

The Commission is concerned that the Forest Service will respond to the "sales below cost" controversy by artificially "improving" its timber sale balance sheet by shortchanging mitigation needs. The DEIS should disclose the manner in which mitigation measures and levels of mitigation funding are chosen and applied. This information may demonstrate that the timber production envisioned by the proposed alternative fails to include all mitigation costs and is therefore even more cost ineffective than it presently appears. Bland assurances that the Forest Service will implement mitigation measures which it alone determines are necessary frustrates the policies behind both NEPA and NFMA. Both of these statutes demand disclosure, public scrutiny, and public input.

In attempting to justify "sales below cost," the Forest Service should explain where it intends to find the funds to pay for mitigating the effects of timber management on fish and wildlife It is our understanding that Knutsen-Vandenberg funds for fish and wildlife are not generated by "sales below cost" whereas a sale that covers its costs also yields mitigation money. In other words, fish and wildlife are much more adversely affected by a below cost sale than by a sale that is financially sound.

Community Stability

Despite the utter dearth of statutory authority, the Forest Service appears to believe that the "maintenance of community stability" is the primary constraint on forest management. In addition, "maintenance of community stability" also appears to mean perpetuation or increase in commodity outputs to the detriment of non-commodity outputs and an attempt to artificially maintain lifestyles which would not otherwise be economically feasible. In essence, the Forest Service seems to perceive its mission as being the guarantor of the local timber and range industries.

The Ochoco National Forest is a national forest and should not be managed as a private woodlot for a handful of local mills. If the trends for sustainable flow from surrounding lands are on a declining trend in the local area, the intentions of the Forest to match past levels of harvest may in the long run fail to support local mills. The Forest Service is not charged with the obligation to insure community stability. Its true mission is to ensure that the resources it controls will be productive into perpetuity. It fails that standard if it allows timber harvest that reduces the productive capacity of forest fish habitat.

Budget

Given the present domestic spending trends, it is extremely unlikely that the Forest Service will be able to count on receiving budgets of equal or greater amount than what it currently gets. The DEIS should include a complete explanation of how the Ochoco National Forest will respond to budget cuts, which programs will be cut and the amount of the cuts. Region IV national forests in Idaho have a 25% constrained budget alternative in their DEISs. The Ochoco would be wise to initiate planning that would anticipate substantial budget cutbacks.

Water Quality

The NFMA and its implementing regulations explicitly require the Forest Service to ensure protection of streams and fish habitat. Plans must "insure that timber will be harvested from National Forest System lands only where -- ...protection is provided for streams, streambeds, shorelines, 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...." NFMA at Section 6(g)(2)(E)(iii). The NFMA regulations parrot this language. See 36 C.F.R. Section 219.27(e).

The Forest Service is also obligated to abide by state water quality standards adopted pursuant to the Clean Water Act. Unfortunately, the Ochoco National Forest appears to have adopted a rather lackadaisical attitude towards these provisions. For example, the Forest spends one and a half pages (DEIS at 172-174) discussing Oregon State Forestry Program Projections for the Forest. In stark contrast, the Forest spends one and a half inches (DEIS at 175) discussing how well the Plan meets Oregon's water quality standards. One would never know that Oregon's water quality standards, not Oregon State Forestry Program Projections, are binding on the Forest Service. In addition, the Forest does not appear to be able to comply with state standards for temperature and turbidity. ID. Does the Forest anticipate

continuing management activities on those drainages where standards are being violated? And if so, on what legal basis does the Forest justify activities that will either increase or perpetuate violations of the law?

The purpose of the Clean Water Act is to protect and maintain the beneficial uses of water. Fisheries are one of these beneficial uses. The Forest states that it is using a habitat capability index ranging from 1-100 to measure fish habitat. The Forest states that habitat capability ranging from 15-60 is "fair to good." (DEIS at 69). In every other national forest plan that we have examined (2 in Washington, 5 in Idaho, and 1 in Oregon), habitat capability ranging from 15-60 is considered to be poor. For example, the South Fork of the Salmon River has an existing habitat capability of approximately 55%. This river is often cited as a prime example of a drainage that has been severely impacted by past logging. The DEIS does not contain enough information to determine whether these habitat standards are in compliance with state water quality standards. However, from what we see, it appears that in no way can beneficial uses be fully protected even by the Forest's "excellent" standard (which claims that achieving a rating of 41 out of a possible 100 is "excellent").

Hydroelectric Applications

The Secretary of Agriculture has an important role to play in the licensing of hydroelectric projects that will be located in national forests. Section 4(e) of the Federal Power Act, 16 U.S.C. Section 797(e) (1982) declares that the Federal Energy Regulatory Commission is authorized:

> To issue licenses...for the purpose of constructing dams...or other project works...upon any part of the public lands and reservations of the United States...Provided, that licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired, and shall be subject to and contain such conditions as the Secretary of the department under whose jurisdiction such reservation falls shall deem necessary for the adequate protection and utilization of such reservations....

It is the Forest Service's duty to impose terms and conditions that will assure adequate protection for national forest lands from the harms resulting from hydroelectric development. See Escondido Mutual Water Company v. La Jolla and Rincon Bands of Mission Indians, 104 S. Ct. 2105, 2114-15 (1983). It is also part of the Forest Service's trust responsibility to the tribes to ensure that it exercises its duty to impose terms and

conditions so that the tribes' treaty rights are protected. The tribes possess considerable expertise in this area and would welcome further consultation with the Forest Service to ensure adequate protection.

The Northwest Power Planning Council is in the process of developing a list of potential hydro sites with the least potential for adverse impacts on other resources. Forest Service activities related to hydroelectric power should be coordinated with these efforts.

Forest-Wide Standards and Guidelines

Mining

Management plans for mineral developments include reclamation requirements but there is no indication of monitoring requirements by the mining company (Plan p.49). Is monitoring of mining the sole responsibility of the ONF? What is the forest-wide goal for reclamation; does it imply restoration to natural appearance?

Range

Transitory range management will be coordinated with timber management (Plan, p.50). What factors are considered in the tradeoff between range and timber management? It often seems that the ONF will go to extreme efforts to extend grazing systems even to the detriment of timber production. The most productive bottom lands bordering streams are generally already clearcut and after becoming incorporated into grazing allotments, these lands are never returned to productive forest management. Why are the most productive lands allocated soley to range, a commodity output which costs the ONF far more to administer than it generates in receipts?

When other management strategies will not protect the integrity of riparian communities in active allotments, fencing will be used to control utilization (Plan, p.50). It seems that the predominant lesson from grazing studies near riparian areas is that salt blocks and watering structures are inadequate in luring cattle away from riparian areas. What is the record of compliance of cattlemen with requests to frequently move their herds out of riparian zones? In which instances will fencing be required and how many miles of fencing would be needed per year? Would anadromous fish streams be fenced when found in allotments? What is the condition of particular anadromous fish streams?

Riparian Management

For projects which could impact water quality, objectives for management of riparian areas will be developed under the NEPA process through the project's environmental analysis (EA). Will

riparian zone treatments only be considered after EAs are done for timber management projects? That is, will any riparian evaluations and treatments be done independently of timber projects? What part does range evaluation play in inventory and improvement of associated riparian areas?

How was it established that 40 to 60% ground cover is sufficient to prevent significant water quality degradation? What level of degradation is considered significant? On which streams flowing through allotments does ground cover exceed 60%.

--Water Quality

Management activities "may involve some temperature increases, provided the standards for class I and II streams continue to be met" (Plan, p.52). What are the standards for the different classes? How much temperature increase is allowed? Considering the extreme temperature problems downstream of the ONF, how can any more temperature increase be considered not to have adverse cumulative effects?

State water quality standards will be met by limiting timber harvest to "no more than 25 to 35 percent of suitable land base at any point in time". What factors were considered in sediment modeling? Did sediment modeling include timber harvest, road construction, grazing, and mining (including all the methods for conducting each activity)? Relative watershed sensitivities correspond to 25, 30 and 35% limitations (Plan, p.52). There seems to be very little difference in limitation between stable and unstable watersheds. In calculating equivalent harvest what age stand is considered to be a closed stand and what is the minimum size watershed to which the standards apply?

Bank stability is generally provided by tree roots for a distance of 5 to 10 times the diameter of the trunk (Plan, p.52). Merchantible trees may be removed if sufficient trees remain to provide root strength. If bank stability and sufficient shade can be provided by the trees within 5 to 10 trunk diameters, will riparian zones be essentially clearcut outside this near-stream area?

Enough trees "should be" left to meet shade requirements and supply sufficient amounts of large woody debris (Plan, p.52). Is this statement made by assumption or calculation? What is considered a sufficient amount of large woody debris? Fuzzy language such as "should be" and "if possible" needs to be reworded to <u>will be</u>.

--Wetlands

Riparian areas "should be" managed to maintain upper streambanks in stable condition along at least 80% of the stream's length (Plan, p.53). In addition, in riparian areas normally dominated by trees, 80% of potential tree crown cover "should be" retained. Will the ONF provide a map of the

potential tree covers assigned to all riparian zones so that the public can determine whether the standards (80% of potential) are being met?

If 20% of a stream length can be unstable, 20% can have no tree cover, and 40 to 60% could have no ground cover, how can this be considered to be adequate to provide excellent riparian zone conditions?

--Transportation

Road crossings will not alter stream characteristics (Plan, p.53). How frequently will roads cross streams--every 100 ft., every 1000 ft?

Soils

No more than 20% of an activity area can be compacted to a degree which degrades vegetative productivity (Plan, p.55). Cable logging is estimated to increase soil bulk density on 10% of activity areas and tractor logging on 30% (DEIS, p.177). Since the forest plan calls for predominantly tractor logging, how can a maximum of 20% compaction be assured? How much reduction in vegetative productivity from soil compaction is required before it is considered a significant? Are the miles of permanent road network included in calculations of compaction? Is this surface area subtracted from the productive forest land base when calculating future production? Is the reduction in productivity from all sources factored into future timber production calculations and the estimated LTSY? What length of time is required for various degrees of compaction to be reversed naturally? What percentage of soils will be ripped to reduce compaction? How much will this increase soil erosion? Are sediment output rates calculated on the basis of watersheds (if so, which size watersheds) or on a forest-wide basis? Much more drainage specific information should be provided on sediment output and erosion as well as on other characteristics of the watershed systems.

Timber Management

Clearcut units should be prepared for planting within 2 years after harvest. Planting occurs within 1 year of site preparation and the stand is hopefully certified 3 years after planting (Plan, p.57). This process appears to take 6 years although sites are supposed to be certified within 5 years. What happens if a site cannot be certified as revegetated? Will it be replanted and are funds available for the usual frequency of second efforts at revegetation? What is the success rate of revegetation on different site types on the ONF?

--Reforestation

Stocking standards are based on trees 4.5 ft tall (5 to 10 years old). If 30% of a watershed can be in a harvested

condition at a time, then it appears that 60% could be less than 4.5 ft tall by the second decade. Would this rate of harvest in a watershed be allowed and would it automatically be assumed to meet water quality standards if the watershed sensitivity rating indicated the watershed should be stable? Could wildlife demands for thermal and hiding cover be provided under these circumstances? What average stocking density has been achieved in the past on the various site types on the ONF? If only the minimum stocking level is achieved, this apparently will be considered sufficient. If minimum levels become common how would future allowable harvests be adjusted? What percentage of recommended stocking levels are assumed when projecting forest productivity?

--Precommercial thinning

Precommercial thinning will only be performed when expected return exceeds the cost of the action (Plan, p.58). How much does the projected timber yield depend on precommercial thinning.

--Harvest Schedule

Total timber sold (ASQ plus salvage) for the decade will not exceed the planned level by more than 5% although it is also stated that in case of a catastrophic event this may be increased to 10%. What is the distinction between normal operations and catastrophic conditions? It is commendable to require reductions in the ASQ above this level but what keeps the planned ASQ plus salvage level from being exceeded by 10% each decade. Are adjustments anticipated from decade to decade to compensate for over harvest in any decade?

--Low Productivity Lands

Why is timber harvest contemplated on sites with less than 20 cu.ft./acre/year production? Other forests forbid harvest of trees on low productivity sites.

Wildlife

-- Pileated Woodpecker

How many pairs of pileated woodpeckers can be supported on the remaining old growth outside of wilderness areas? What percentage of maximum densities can be sustained with 2 snags per acre? The minimum tree diameter (10 inch) allowable is far too small to support the pileated woodpecker which depends on trees of greater that 30 inch DBH. In addition, they prefer ponderosa pine. What are the realistic chances that the preferred species of snag with the necessary DBH will be provided? If old growth areas will be harvested at 200 year rotation is it possible that the preferred tree diameter can be achieved on these sites?

--Primary Cavity Excavators

Snag habitat will be provided by clumping acres of timber managed for snag retention within managed stands (Plan, p.61). Will this uneven distribution of snags really counteract losses of snag density in managed stands? Have the spatial requirements of snag dependent species been considered relative to all the species which use the snags? True, some species may benefit from clumping (Thomas 1979) but this does not imply that all would. How does the species territory size requirements match the distribution of preferred snag trees. Given the large number of wildlife species which depend on large diameter standing or down dead trees, how can the requirement of 2 snags/acre and 10 inch DBH satisfy their needs? Thomas (1979)(Appendix 20) lists many birds and mammals that depend on tree cavities in trees larger than 15 inch DBH. In addition, wildlife use of downed logs is given in his Appendix 24. Numerous species, including many rare species and big game, have various life history requirements centered on use of downed logs. It is doubtful that 10 inch DBH material would satisfy the needs of many of these species.

It is stated that "large snags, greater than 20 inches dbh is no longer a requirement because only the pileated woodpecker requires the large snags and their MMR's will be met with the benchmark old growth allocations" (Plan, Appendix M1). What is the MMR for the pileated woodpecker? Will its populations remain viable with the dispersed nature of the proposed old growth areas? For reasons discussed more fully below, calculations of forest-wide habitat potential for this woodpecker are erroneous. As noted previously, Thomas lists many species which depend on large snags. Among these are the barred owl which is listed in the "Oregon Non-Game Wildlife Management Plan" (ODFW, 1986) as being in danger of extinction in Oregon. The ODFW Plan also lists Lewis's Woodpecker as being vulnerable and it requires snags greater than 12 inches DBH. The fisher requires large snags and is also listed by ODFW as vulnerable. The status of the Canada lynx is questionable and the wolverine is vulnerable; both species require large downed logs for cover. The tendency to minimize the quality of fish and wildlife might be expedient for logging companies but shortchanges the entire forest ecosystem.

Have population trends been estimated for any of the species listed in Thomas (1979) taking into consideration the size of downed logs? Large snags become large downed logs. If large snag management is inadequate, so too will be management of downed logs. Large snags also create the most favorable instream habitat upon entering a stream channel. Rotation ages of 200 years in riparian zones with removal of snags during harvest would not provide the most effective habitat formation and will necessitate continuing investment in artificial structures.

--Rocky Mountain Elk and Mule Deer

The ONF will maintain at least 10% of all winter range in thermal cover (Plan, p.61). What standards are there for hiding cover? What plans are there for increasing thermal cover on winter range where it is deficient?

--Dead and Downed Logs

"Wherever possible", 2 uncharred logs/acre should be left for wildlife habitat. Where is it not possible to leave 2 logs/acre after logging? The minimum size log identified is 12 inches and 20 ft long. What is the value of even 2 ponderosa pine logs of good quality of these dimensions compared to the value of the wildlife species which depend on this material? What percentage of maximum densities of all dependent species could be supported by such levels of dead and downed logs if these guidelines were employed forest-wide? What are the densities of this kind of material in various old-growth forest types on the ONF? Have snag inventories ever been done?

Management Area Prescriptions

General Forest

On 58% of the ONF the largest trees will be 16 to 18 inches DBH. The only snags present will be those needed to meet the cavity nesters requirements (Plan, p.65). Does this mean that any snags beyond the minimum requirements will be eliminated? The General Forest prescription commits a very large percentage of the forest to small maximum size. As the old overstory is removed and the understory is thinned, the forested range lands will be found more frequently in fair and good forage condition class (Plan, p.65). This is a rather sad commentary on range management if it is necessary to convert the remaining old timber stands to thinned tree farms to provide new transitory range that does not suffer from over a century of overgrazing so that the forest-wide average range condition can be shown to be improving.

Range utilization standards will not exceed an average of 50% on meadows and on slopes less than 30%. Is this a new standard or has it been used before? If this standard has been used for some time why are the ranges predominantly in poor to fair condition still? What is new about management or enforcement that will assure a departure from the declining range conditions that the ONF has experienced until now? What grazing seasons are allowed for meadows?

Big Game Winter Range

50% of big game winter range will be managed in thermal cover (Plan, p 68). Is the ONF distinguishing thermal and hiding cover. It appears that much of the vegetation termed thermal

cover is shrubs. What proportion is dense forest cover?

The Green Dot System will be used to regulate temporary road closure. It has been our experience in reviewing success of road closure policies that a system of signs does not work. We suggest that the ONF is not a public roads agency and does not need to keep a large number of roads open after logging has ceased. Wildlife would benefit from lower road densities and less sedimentation of streams from road travel would occur. The Nezperce Forest has been successful in instituting permanent closures with concrete barricades in cooperation with timber companies and the Idaho Department of Fish and Game.

Forage utilization standards on winter range are the same as for General Forest. Since winter range has largely been incorporated by private cattle ranch operations, wouldn't it be wiser to give big game a break on habitat critical to their survival. If there is such resentment by cattlemen to wildlife use of their hay, maybe the ONF should consider much greater reductions in the heavily subsidized use of forage on national forest land. Virtually the only place where grazing is not permitted is on administrative sites.

Big Game Summer Range

Optimum summer range will be created by timber harvest to reach a 40/60 ratio of thermal cover to open range. What is the present ratio on summer range? What is the average distance from forage areas to thermal cover?

Old Growth

Only 3% of the ONF will be retained as old growth (Plan, p.74). Why is it that when the ONF is already one of the most heavily managed forests and has lost more old growth than most other forests that it cannot plan to leave the remaining old growth? It seems that present degraded conditions always set a framework for the future and the future will be the present minus 50% regardless of what the starting point was. It is difficult to see how the ONF can meet requirements for dispersion of seral vegetative stages and ecosystem diversity by limiting old growth to 3%.

Why is the minimum snag size given as 10 inches DBH when much larger sizes are required? If the old growth area is capable of producing trees of 21 inches DBH or more, why is it too much to require larger size snags? Are 2 snags per acre expected to provide 100% of potential population sizes for pileated woodpecker?

Retention Foreground

Is it legitimate to assume that cavity nesting species can be found at 100% of potential in the linear patches created by retention foregrounds when these are found near roads, trails,

and campgrounds? It seems that the viability of many species is resting on shaky biological assumptions which are based more on multiplying total areas by assumed wildlife densities than by considering the spatial relations among management units.

Wilderness

Only 4% of the ONF is planned to be retained as wilderness. Forage utilization standards in wilderness are the same as those found on General Forest areas emphasizing grazing. Why is grazing intensity just as high in wilderness as in intensive allotments? What seasonal restrictions apply to wilderness areas? Do these restrictions prevent the kind of soil compaction found on allotments?

Riparian in Acceptable Condition

On streams where the desired condition is not met the stream will be improved to an acceptable condition (Plan, p.93). What is the time frame for improvement from poor to acceptable condition? Which classes of streams are placed into the management category for attainment of acceptable condition?

The minimum requirement for shade is 75%. What is the average percentage shade on this class of stream (riparian in acceptable condition) presently and on specific streams of this class? If 75% shade is unattainable, the standard will be 100%. What does this standard mean? If 75% is truly unattainable, then 100% would be also.

On the John Day River, temperatures at or below 66 F may be raised a maximum of 2 F (Plan, p.93). Since high stream temperatures are such a severe problem in the John Day system, how can any further increase in temperature be allowed? If temperatures are raised on one tributary, will they be reduced on another by an equal or greater amount. Overall temperature reductions should be the rule if the ONF is trying to improve shade. Why is 68 F chosen as the maximum allowable? Is this considered to be an optimum for fish? Why is 58 F the maximum in the Deschutes River if both the John Day and Deschutes are steelhead streams? How would the potential temperature increase be determined before harvest? For how long after harvest will stream temperatures be monitored to determine whether temperatures are within acceptable limits and which flow conditions do the standards apply to? What are maximum temperatures currently on the streams in this class?

If the goal for riparian shade in this management unit is 75%, why are cavity nesters to be managed at 40% of potential?

Only one pasture per allotment will be scheduled for improvement during a five-year period (Plan, p.94). How many pastures are there per average allotment? Why is the rate of improvement so slow? After one pasture is improved, will it be returned to its previous level of grazing?

Timber management in the riparian zone features a 200 year rotation. The Wenatchee National Forest uses a more conservative value of 260 years. Harris (1984) recommended 320 years rotation in riparian zones for Region 6 forests. Even in western Oregon it requires 260 years to produce trees of 30 inch DBH. How would old-growth dependent species fare in riparian stands of 200 years old? Maintenance of older age riparian cover would reduce disturbance to streams and also provide more effective habitat for old growth dependent species and integration of the entire forest.

It is obvious that in the ONF a greater proportion of timber production occurs in riparian zones compared to other management areas than one finds west of the Cascades. This fact implies that proper riparian zone management for multiple-use would be more restrictive to the timber industry in the ONF. This, however, should not dictate what is environmentally acceptable. Control of water temperatures by conservation of riparian cover in eastern Oregon is even more critical than in western Oregon.

What is the planned width of riparian zones? If a riparian zone is nothing more than a picket fence it cannot assume a role as a real functional unit.

Riparian in Excellent Condition

No activities that degrade water quality in perennial and fish-bearing streams will be allowed (Plan, p.95). Will streams which were formerly fish-bearing be rehabilitated to fish-bearing status? In which anadromous fish streams have activities occurred which have degraded water quality? The statement that no activities which cause degradation will be allowed is good but what kind of commitment will the ONF make to realize this standard? If grazing is causing degradation in streams and riparian zones will it be discontinued or will out-of-riparian zone watering devices simply be installed?

How much of the riparian zone assigned to excellent management condition is presently in excellent condition and how much will be elevated to this condition? Drainage-specific information would be needed for public understanding of the goals for specific streams. Otherwise, no one will ever know whether he is following or meeting guidelines. How many of these streams meet the 80% shade guideline presently? If this guideline is not now met how can 5% be cut per decade? If trees reach 4.5 ft in a decade it would seem that little shade would be provided a decade after harvest. If 2 decades are required before sufficient shade is provided by riparian regrowth, the present riparian shade in these streams should be about 90% presently for 5% to be cut per decade, thereby reducing shade to a sustainable 80%. How much timber harvest has occurred in the past on anadromous streams? Has this timber regenerated?

Monitoring Plan

Wildlife

If priority stands are lost then land designations would be modified. What are priority stands? Does land designation modification mean that other mature forest land would be allowed to grow into old growth condition?

If snag habitat is not sufficient to meet objectives, output schedules would be revised and the management practice would be modified. What help would be provided by revising output schedules? If the objective is to provide various percentages of potential habitat, why is the monitoring unit simply acres (or even snag numbers)? The ONF should be inventorying wildlife populations to determine whether snag numbers meet the objectives for the populations and not just whether an index such as snag numbers is met.

For fish and wildlife improvements what does it mean to have methods of evaluation commensurate with permittee? In fish improvement projects what would the objectives be? It appears that counting of fish is not considered as part of evaluation. To determine whether variability thresholds are exceeded, one must know what the objectives of projects are. Habitat improvements may be valuable assuming they are engineered correctly out without evaluation of projects and general evaluation of fish numbers in streams throughout the forest, the only thing that may result is "project completion" (i.e. installation of structures) as listed in the monitoring plan.

The only monitoring dealing with anadromous fish appears to be macroinvertebrate sampling. Will the ONF provide any funds for this sampling? How extensive a program would this be; how will the data be used; why are there no thresholds of variability; why are fish not actually counted? Macroinvertebrate sampling is worthwhile as an index of health of aquatic systems but it seems unlikely that enough sampling would be done to be effective.

Any management projects involving potential effects on anadromous fish streams (especially projects in their scoping and EA stages) should involve the Umatilla and Warm Springs Tribes as co-managers. These tribes plus the other CRITFC tribes have treaty-secured rights to a portion of the fish originating on the ONF. Any management activities enhancing or degrading this resource directly affect the success of the US government in meeting its responsibility to the tribes under the treaty.

Range

Which allotments are in poor or fair condition and what would be done on each to correct the situation? As part of the monitoring of trend in range condition, will utilization surveys

be done on all allotments? The variability threshold for range condition is any change which would affect AUMs. What change would really require a reduction in AUMs? How often have AUMs been reduced from the planned allowable levels due to severe climatic conditions? Will rainfall or forage productivity measurements be made throughout the grazing season to determine when cattle should be removed?

The objective in planning range improvements is to gain a desired cattle distribution and use pattern. If this is the objective, it would seem that cattle distribution would be measured. If specific levels of forage production were the objective, then production analysis would be appropriate.

Timber

Have any measurements been made on the ONF of tree growth rates in second growth areas vs. previously uncut areas of the same site type? It would be interesting to know the likelihood of future growth variations caused by harvest.

Riparian areas will be evaluated every 5 years. Will permanent stations be established to determine a trend? What would these sites be? Can more precise data be given at this time for riparian condition--i.e. by drainage? If the threshold of variability is 20% from predicted, how is the prediction made? Does this statement mean 20% degradation from the previous measurement? What percentage of total riparian area would be sampled every 5 years?

Physical and biological sampling in riparian zones is noted for riparian areas. These data will enter STORET but no action is indicated if changes are noted. What is the value of monitoring when nothing will be done in case of a deviation? Will changes in stream bed sediment or fish habitat be periodically evaluated? Why isn't aerial photo surveying done on all riparian area instantaneously to determine every 3 years what the trend in percentage shading is rather than relying on the solar pathfinder method?

Soil

It was previously stated that a forest-wide average of 20% soil compaction would be allowed for activity areas. Does this degree of compaction constitute the predicted compaction level. If so, with a 20% threshold of variability from the predicted level, compaction would have to affect 24% of the activity area before action is taken. If an area is primarily tractor logged, the predicted compaction could involve 30% of the activity area (predicted value). With a 20% variance the critical compaction would be 36%. It would seem this areal extent of compaction is extreme. For a given area compacted, what degree of increase in bulk density has been shown to reduce tree growth? What degree of increase in bulk density would be allowed? Is compaction considered to be an irretrievable loss in production? What

degree of compaction would be necessary before the loss is essentially permanent?

In water quality sampling will there be long-term stations established for determination of baseline data for cumulative effect analysis? How many streams will have thermographs? What are the state standards for water quality which will be followed? What procedure would be followed for determination of a deviation in water temperature or suspended sediment? If there are currently no baseline data forest-wide or for individual streams, what standard values would be used in the interim? Will water quality evaluations be made only in association with specific logging projects? Will evaluations also be made of grazing, mining, and road building compared with control areas?

Cultural Resources

Monitoring to determine whether cultural resources are being protected and inventoried shows no plan for consultation with the Umatilla or Warm Springs Tribes. This should be corrected. A point is definitely made about consulting ranchers regarding whether forage utilization standards are being met.

General Comments

Land Allocation

The DEIS (p.XII) states the "alternative E-departure emphasizes a combination of timber production, roadless recreation, and big game habitat." This statement seems to be quite misleading. Only 4% of the ONF is to remain in wilderness at the end of the planning period and a total of less than 4% will remain in semi-primitive condition. Although 8% of the ONF is classified as big game winter range and 16% as *summer range*, these areas could just as easily be called cattle grazing allotments. The justification for removing old-growth from winter range is to produce an optimal ratio of timbered to forage areas. However, elk are managed at far below their potential so the additional forage produced is evidently destined for the cattle.

The Plan identifies the major management decisions proposed (p.1). Alternative E-departure is the preferred alternative. The basic tone of the plan is set by two major decisions. The first is to harvest 123 MMBF of green timber during the next decade and the second is to gradually increase grazing from 75,000 to 83,100 AUMs. Other management decisions seem incidental by comparison with these because the areas involved are so small. And because the time frames for change to occur are so indefinite, one might guess that the status quo would be acceptable. When guidelines call for maintaining present conditions "or" improving trends and there is no clearly identified baseline condition, one would never know if

improvement were occurring. It seems to be taken for granted that things are better now than they ever will be in the future. Regardless how much habitat loss has occurred on the ONF from past management, we must be willing to accept more. While we are being conditioned to accept the liquidation of the remaining old growth ponderosa pine, we apparently should be content to have parklike retention stands near campsites.

Timber

The preferred alternative (*E-departure*) calls *for an ASQ* of 123 MMBF in decade 1 declining to 118 MMBF in decade 2 and 89 MMBF by decade 5 (Plan, p.22). 69% of the harvest volume in the first 2 decades would be ponderosa pine (Plan, p1). The volume of ponderosa pine harvested in decade 1 will be 97 MMBF/yr and could decline to 47 MMBF/yr by decade 3. The timber industry has apparently convinced the ONF that it can survive only if it releases the majority of the remaining old growth ponderosa pine. After this material is gone the industry will be faced with lower volume harvest, smaller diameter timber, lower quality timber, and lower value species. Satisfying the short-term goals of mills which may close a decade from now when the prime timber is gone might look good on paper to those concerned with meeting RPA goals or those who want to sidestep criticism of the industry but the forest's other resources must absorb the brunt of this kind of management. It seems unfair that under MUSY management that timber can be harvested at high levels or departures but that non-valued outputs are assigned to MMR levels.

The ONF has sold an average *of 136.1 MMBF/yr for the last 20* years. Now that some calculations have been made of the LTSY of timber (19.3 mmcf or approx. 115 MMBF), it was decided that harvest in excess of LTSY should continue for two more decades. There is presently 280.5 MMBF of timber which was sold but is uncut. There will be 5 MMBF of salvage logging in decade 1 and if a catastrophic event occurs an additional 12 MMBF (Plan, p.59) could be harvested as salvage. This brings the total potential harvest to 140 MMBF/yr in decade 1 (green volume plus salvage). It appears that in addition to this, total timber harvest can be within + or -5% of the planned value (Plan, p.104). Why is harvest of salvage timber not counted toward satisfying the LTSY volume? The amount of timber produced in a period is irrespective of whether it is alive or dead at the end of the period.

Based on timber inventories conducted in 1973 and 1982 the ONF timber base has declined 14% in this short time period (Plan, p.32). If this trend continues how can future planned harvest volumes be realized? What is the expected *standing volume after* decade 5? It also appears that ponderosa volumes have declined by 18% in this same time period? Why have subalpine fir inventories declined by up to 33%. It seems that the kind of forestry practiced on the ONF may not qualify as site conversion but could be termed total forest conversion. Radical changes in forest *species composition should not be tolerated any more than*

site conversion.

A point is always made about how the decadent stands need to be removed because of their low growth rates. Why, then, does the mature ponderosa pine have a net growth rate of 23.6 CF/acre and the two-story and immature stands have lower net growth rates (Plan, p.31)?

Old growth forest will be represented by 26,377 acres of old growth management and 23,500 acres in wilderness. The total available old growth on the ONF is 80,000 acres (Plan, p.24). This should mean that 30,123 acres will be placed into the timber base. Compare with the Plan on p.28 where only 22,300 acres was available to the timber base. If old growth in the timber base had been cut on a 300 year rotation previously, why has this been reduced to 200 years? Considering the minute amount of old growth remaining and the importance to the ecosystems in the ONF of safeguarding genetic and species diversity, why should the 22 to 30 M acres of old growth be harvested on such a short rotation schedule. Very little time is allowed for old growth characteristics to become established before harvest.

Grazing

Grazing will be increased by 11% in the first decade (Plan, p.22). Of the 19,000 acres of riparian area on the ONF, 12,300 acres are slated for improvement. On almost all allotments there appears to be little room for increase in AUMs. Most allotments are stocked to capacity. Why are there so many allotments having obligated AUMs exceeding carrying capacity? For example, Wind Creek, Wolf Creek, Allen Creek, Silver Creek, Buck Mountain, Lower Nicoll. Will grazing be reduced on these allotments? How is carrying capacity calculated? Is this capacity the maximum capacity assuming the range is restored to healthy condition? Are the obligated AUMs the sum of AUMs for cattle and wildlife or only cattle? Is the use of forage by wildlife other than deer and elk considered? Increasing the total obligated AUMs so that it equals the estimated total carrying capacity would be a 3.8% increase (Plan, Appendix F-5). How is an 11 % increase calculated?

The total range budget for 1985, including range protection and management and range improvement was $309,000. The range receipts for this year were $50,400. The amount spent to administer the range program was 6 times the receipts at a minimum. The costs to the environment in lost production of fish and wildlife, soil erosion and compaction, vegetation loss, and reduction in tree production are tradeoffs which are not accounted for when evaluating the wisdom of such extensive programs, let alone increasing the AUMs. The minimization of the importance of the ONF fishery resource in the Plan is covered below. The Forest Service is lucky that the BPA has invested in stream enhancement but if the Forest Service itself had to mitigate the losses in fish habitat caused by its grazing, roading, and forestry programs and repay the cumulative losses in

fish production over the years, it might reconsider whether maintaining or increasing the grazing program made sense. The ONF plans to spend only $80,000 of KV funds in 1988 on "fish and wildlife" projects. How much does it expect BPA to spend? What fraction of these funds are destined for fish enhancement? Are wildlife enhancement funds basically range enhancement funds?

Over-obligation of range resources, over-allocation of water from streams and groundwater supplies, and over-harvesting of old-growth and favorite tree species has been a way of life for the John Day and Deschutes River Basins for a century. Lumber mills in the vicinity of the ONF have never operated to capacity but supposedly it is the responsibility of the ONF to meet their demands. Maybe they overbuilt for the available resources. Overconsumption and waste of water out-of-stream angers junior water users and affects senior users in drought years. Provision of adequate water of high quality (low temperature, nutrients, and sediment) is essential in maintaining healthy fisheries. The ONF must do its job to ensure the rebuilding of this resource. Supposedly, allotments have been fully occupied for years and the survival of ranching operations depends on using forage on the ONF (DEIS-84). If allotments are already filled to capacity, the demand is increasing for more, and range conditions are poor to fair on 70% of the ONF, then perhaps a reduction and not an increase would be appropriate if the Forest really hopes to meet the needs of other resources. The "demands" of the timber and grazing interests are described as ever-increasing. The Plan does not address the Forest's obligation to the tribes for restoration of fish and wildlife resources and sufficient water of high quality to sustain these resources. If the "demand" is not apparent, the obligation of the Forest Service to do much more than just maintain a presently degraded fish and wildlife resource should be. Treaty obligations must be treated as hard constraints and not discretionary items.

Fish and Wildlife

The budget for fish and wildlife is planned to go from $102,000 in 1985 to $288,000 in 1988. If the need is identified for this amount of money to protect the fish and wildlife resource and funds are cut eventually, will all expenditures be cut equally or will fish and wildlife simply be funded at historic levels? Is the ONF committed to make funding for the necessary fish and wildlife programs as solid as roading and range administration has always been?

Soils

Under the Plan, 156,000 acres will be logged between 1986 and 1995, 80% of this by tractor harvest and 20% by skyline. Tractor skidding and machine piling will result in 25,000 acres of compacted soil (Plan, p.26). This would result in 16% of the project acres being compacted. The maximum compaction allowable is 20% (Plan, p.55). However, if compaction by tractor yarding with haul roads is 33% and cable yarding with haul roads is 18%

total (DEIS, p.115), the weighted average or 80% tractor/20% skyline is 30% compaction. If compaction of haul roads is eliminated, assuming that haul roads will become permanent losses to the forest base, then weighted average compaction of future forest base soils would be 23%. This means that 36,000 acres will be compacted rather that 25,000 forest wide and the effect on slopes less than 30 degrees will be much greater than average. How can compaction be limited to 20% in an activity area when tractor yarding with haul roads can cause 33% soil compaction?

Total existing soil compaction amounts to 102,000 acres. Based on 495,005 acres of land suitable for timber production, this amounts to 21% of the forest base already being compacted. What is the rate of reversal of this effect? How are the cumulative effects of compaction being dealt with? If a minimum of 25,000 acres are being compacted each decade, the total acres compacted after decade 1 will be 127,000 (DEIS, p117). Table IV-11 shows a constant level of total existing compaction from decade to decade in alternative E-departure. The implication is that only 10 years are required to reverse the effects of each decade's compaction, but that the present level of compaction lasts throughout the next 5 decades.

Calculation of tons of sediment produced among alternatives seems to be only logging related (DEIS, p.117). What are the effects of different amounts of road building, cattle grazing, and mining? Tractor yarding with haul roads can result in 47% bare soil. This effect seems to be accounted for in sediment calculations; however, the loss in vegetation cover and root strength caused by grazing is not included. Why? The methodology for calculations of sediment production and delivery to stream channels should be made very clear, including the formulas and references.

Fisheries

A fish habitat capability index was developed by sampling various streams on the ONF ranging in condition from poor to excellent. It would seem that unless a complete inventory is accomplished that it would be difficult to know the mean state of streams with any certainty. What characteristics were measured in samples of stream condition? Was the biological potential of the streams evaluated with respect to physical potentials? It has been common for many Forests to determine a habitat index based on a degraded channel or riparian structure as a standard. This kind of analysis would possibly calculate the fish potential given a channel type with broken down banks and a low percentage pools. Without a means of determining what the stream used to be there is no way to determine how far the present condition is from its potential (see our Appendix on monitoring plans).

A habitat index of 41 to 60 is supposed to represent good conditions. This index should be associated with 1000 to 3000 2" to 9"+ fish per mile (DEIS, p.108). Since steelhead juveniles spend two years in freshwater habitats, the mere presence of

numerous 2" long steelhead may not indicate good habitat conditions. Conditions leading to successful smolting and outmigration are essential if the ONF is to meet its production goals. How well is this index correlated with smolt output, not just spawning and emergence success?

A present habitat capability index for rainbow trout (including steelhead) is 14%. Alternative E-departure is reported to be able to raise this to 58% (DEIS, p.108). Elsewhere, it is reported that E-departure will increase the index to 43% (DEIS, p.137). Why is there this discrepancy? Minimum viable populations are listed as being supportable by a 9% habitat capability. If one can be comforted by calculations such as this, we should be grateful for 1.6 times minimum viable levels presently.

In an attempt to determine how the ONF Plan is coordinated with other public planning efforts under 36 CFR 219.7, the Warm Springs Indian Reservation Comprehensive Plan was studied (DEIS, p.172). It was found to contain "no references to the Forest or the Grassland." "Concerns expressed included availability of access to the Forest and Grasslands, being able to gather vegetative materials, support of prescribed burning, protection of archaeolological sites, and the general availability of forest and Grassland resources." The ONF appears to be taking a management plan developed for use on the Reservation, which is outside the boundaries of the Forest, as an indication of the full range of constraints the Tribe might place on management of the Forest. Although there were meetings between the ONF staff and representatives of the Tribe, we wonder whether most of these meetings were confined to the Culture and Heritage Committee as most of the acknowledged tribal concerns focused on these features. It should not be construed that a lack of reference to anadromous fish on the ONF in the Reservation Comprehensive Plan means a lack of concern for this resource or indicates no need to consult the Tribe on fisheries issues on the ONF. Although the ONF is outside Reservation boundaries, it is clearly within the tribal ceded area. If the ONF were to meet with the Tribe to discuss fish and wildlife issues, there is no doubt that the issues addressed within these forest plan comments would also be among the areas of concern discussed at that meeting. As explained earlier, the Warm Springs Tribe, along with the other Columbia River treaty tribes, have taken a Columbia basin-wide approach towards managing fisheries.

The Deschutes and John Day Rivers have 42 miles of spawning area and a total of 87 miles of perennial tributaries on the ONF (Plan, Appendix M3). Although plans are presented for riparian zones on anadromous fish streams, it is unclear how the intermittent and ephemeral streams that are tributary to these anadromous fish drainages will be treated. These types of stream courses are important sources of high quality water for downstream reaches and also serve as sites of temporary sediment and organic matter storage. During high flow periods this accumulated material is transported downstream to spawning and

rearing areas and can be deposited. The Plan should reveal what the treatment of the stream source areas is. Can unrestricted logging and accumulation of logging debris occur in these source areas? What level of grazing control is applied to these areas in comparison to the perennial waterways designated as spawning areas?

Our review of Plan Appendix M2 (Inventory of Anadromous Fisheries Habitat) gives us cause for concern about both the quality of data used to generate potential management options and the resulting options themselves. While the appendix appears to accurately list stream systems supporting anadromous species, data delineating extent of fish-use within those systems are frequently suspect. Conversations with ODFW staff lead us to question how Ochoco NF derived mileages of steelhead spawning habitat and adult steelhead escapement numbers cited in the appendix. Spawning habitat mileages appear understated (or are, at best, minimums) as are the numbers of spawners indicated as typically using the areas. On some of the listed creeks, ODFW's spawner index areas stop short of the Ochoco NF border. On at least one stream (Rock Creek) ODFW conducts no annual spawner surveys. What, then, was the source of Ochoco's data? How were the adult escapement figures estimated?

If appearances are correct and minimum steelhead values are being used, then the end result is that the forest's importance as a steelhead producer is downplayed. The management implications of this action are that, relative to steelhead, other resource values are made to appear greater than they actually are, thus it becomes easier to justify management choices favoring those inflated values. Such deliberately introduced biases thwart any meaningful assessment of total forest resource values and serve only to denigrate both forest planners and the planning process in general. Ochoco National Forest is charged with producing a forest plan that adequately and fairly presents management options available to it given its actual resource base. So long as that resource base is inaccurately portrayed, and particularly so if the misportrayal is knowingly made, the planning documents will be fatally flawed and begging for appeal. A more realistic assessment of the forest's anadromous fish resources (as well as other fish and wildlife species) is needed in the Plan.

Further, to be useful any habitat inventory must recognize the species' habitat needs at each of its life stages. Steelhead require more than just spawning habitat. Where is the inventory of juvenile rearing habitat? Where are the references to juvenile and adult migration corridors? What is being done to assure that these important areas are maintained? Providing for less than a species' total habitat needs is a futile gesture.

Finally, if it should be found that major rearing areas or migration routes for Ochoco-produced steelhead do lie outside the forest's boundaries, what efforts is the Forest making to help insure that this resource, which it is legally charged with

maintaining in a viable condition, is not being wantonly destroyed elsewhere?

Snag Management

Pileated woodpeckers are reported to presently enjoy 55% of their habitat potential forest-wide (Plan, p.15). Despite the liquidation of the majority of the remaining old-growth, they are expected to have a habitat capability index of 51 by year 2030 (DEIS, p.137). Although ONF planners can easily multiply 0.5 or 1.0 snags/acre by a standard woodpecker density for excellent habitat, the formula does not necessarily obey ecological principles. Snags in the middle of young regenerating stands or clearcuts do not necessarily have the same value to wildlife as the same density of snags in pristine habitat. Figures such as 55% habitat capability probably are very deceptive when applied forest-wide. Although it is admitted that 10 inch snags are inadequate for the pileated woodpecker, these would be the rule for management area 1 (General Forest) where trees will be harvested at 80 to 90 years age. Although recommended snag levels here are reported as 40%, they are effectively 0% for pileated woodpecker. The 40% level is a level at which the ability of a species to maintain self-sustaining populations becomes tenuous (Thomas 1979, p.72). Reducing snag levels does not necessarily produce linear declines in wildlife levels and it is doubtful that these kinds of ecological effects are reflected by the seemingly precise percentages of potential habitat capability reported.

Since 58% of the ONF will be in the General Forest category having essentially no value for pileated woodpeckers, the forest-wide capability for the pileated woodpecker is certainly not 55% now or in the future. Use of the pileated woodpecker as a MIS and then monitoring the number of snags of 10 inch DBH is a ridiculous exercise in meeting goals on paper. Reporting erroneous habitat capabilities is merely an attempt to make the public believe that we can keep all our fish and wildlife while still increasing timber and grazing programs.

It seems doubtful that with the complete roading of the ONF, the practice of summarily dispatching all snags during logging, and the demand for firewood, that the ONF's policy of green dot systems to limit access to parts of the forest will prevent snags and down wood from being pulled from wildlife habitat, riparian corridors, and stream channels. Although all standards for snags relate to hard snags, maintenance of soft snags is not specified. Will recruitment and preservation of soft snags be assured outside of wilderness? Permanent closure of many areas must be accomplished to provide security areas for wildlife and safeguard impoverished streams. A good inventory is needed of the distribution, species composition, size frequency, and condition class of snags existing on all management units to establish a baseline for accurate estimate of present potential. This should be related to actual estimates of population densities of dependent wildlife. Such inventories are needed for all

resources, not just green timber volumes.

Cumulative Effects on Soils

The Forest was divided into 24 major watersheds and each was assigned an index of Equivalent Clearcut Acres (ECA) "based on its soil, slope, channel stability, riparian values"(DEIS, p.133). This index supposedly represents a watershed's sensitivity to disturbance. Even though watershed stabilities are described as ranging from stable to very severe erosion hazard, thresholds of erosion are assumed not to be exceeded if ECA, as a percentage of basin area, is not greater than 25 to 35%. This narrow range of ECA values does not seem to correspond to verbal descriptions of the range of landscape sensitivities.

It is stated that "exceeding a threshold value does not in itself limit management options on the Forest. It does, however, indicate the need to undertake other specific mitigation measures to offset potential reduction in site productivity or long-term impairment of water quality" (DEIS, p.133). The Plan should clearly list all the coefficients of mitigation efforts which would be used. The idea that threshold values are set up and that they can then be exceeded if something positive is done somewhere else in the basin is unacceptable. Mitigation factors are some of the most tenuous management tools the ONF is dealing with. These coefficients work well in FORPLAN runs when a coefficient is called for to complete the analysis or to balance high sediment outputs on activity areas. The validity of mitigation factors is very site-specific. Unless extensive monitoring accompanies a large share of the mitigation efforts, mitigation is apt to be primarily an office excercise with no connection to reality. The ONF does admit that "after the fact" mitigation is often not as effective as preventing degradation on a site in the first place (DEIS, p.134). Despite this admission there appears to be little hesitation to apply mitigation while exceeding thresholds. If thresholds of slope stability are exceeded, leading to excessive loss of topsoil, the sediment might be deposited in settling basins but it is not clear how this can counteract the loss in soil productivity on the slope.

How many factors are really considered when calculating ECA values. Does it include all management related efforts such as logging, road building, grazing, and mining?

Soil compaction from harvesting may mean "that a future stand to be regenerated in 100 years may need more time to achieve the outputs normally projected for 100 years" (DEIS, p.120). Soil compaction is "readily measurable 16 years after cutting" (DEIS, p.120). It was shown that reductions of tree growth rate by 12% over a 16 year period are possible from soil compaction. Establishment of new tree seedlings could be even more severely affected. Since it appears to be well accepted that soil compaction is a reality and that reduction in growth rate is to be expected, what average percentage reduction in growth is used in FORPLAN runs and what natural rate of recovery

of compacted soils is used?

Timber

Stumpage prices received for old growth ponderosa pine commonly range from $100 to $300/MBF (DEIS, p.91). High value old growth ponderosa has done an adequate job in the ONF to keep most timber sales out of the "below cost" category. When the old growth is gone in the next decade or two, will sales tend to be below cost? Assuming that the forest will be fully roaded soon, how will timber receipts balance against timber management, administration, and road maintenance costs?

If the stumpage prices are typically high for ponderosa pine, why do Forests sometimes virtually give away this timber. For example, the advertised rate for ponderosa pine in the Wallowa Whitman Forest on the Top-Skook sale in the Hells Canyon NRA was $12.94/MBF. Does the ONF ever provide these incentives for getting the old growth removed?

Of the 544,303 acres of forested land on the ONF outside of wilderness and RNAs, only 0.47% is classified as unsuitable due to regeneration difficulty. Is it reasonable in an arid environment that so little area is classified as having regeneration difficulty? What classes of soil and slope gradient are considered as unsuitable because of regeneration problems? What are the stocking success records which accompany these site classes?

If you would like further information regarding our interpretations of Ochoco National Forest plans, please feel free to contact any of our staff, Jim Weber (policy assistant), Dale McCullough (biologist), or Alex Heindl (biologist), at (503)-238-0667.

Sincerely,

S. Timothy Wapato

S. Timothy Wapato
Executive Director

APPENDIX

Drainage Specific Monitoring

Both CRITFC and the EPA have pointed out in their comments on proposed national forest management plans that the Forest Service needs to produce more drainage-specific information and do more drainage-specific monitoring. Forest-wide averages of fish populations and watershed conditions tend to camouflage drainage-specific problems. Unique fish stocks found in single drainages do not necessarily maintain viable populations on the basis of forest-wide averages of bed sediment or fish numbers per mile.

Because of the fact that many agencies have monitoring responsibilities and that the Forest Service and BLM have responsibilities for maintainance of habitat for many critically weak fish stocks wielding great leverage on national and international economies, there is abundant reason for inter-agency planning for monitoring programs, sampling, evaluation, and review. This type of inter-agency overview has been in effect on the South Fork Salmon River for several years. In the past this committee has been effective as a board of professionals charged with insuring the survival of the summer chinook population found only in this area. Without this committee, intensive timber harvest would have resumed in the South Fork despite the precarious state of this irreplaceable stock. There could be large scale regional direction in planning of monitoring and assessment but sub-regional committees of agency, tribal, and university experts could be assembled to provide advice on drainages which are unique, sensitive, or mis-managed. Typical Forest Service monitoring plans call for reports every five years but action is not indicated until "trends" have been established. This means that an entire planning period would elapse (10 to 15 years) before enough information is available to warrant change in management. The problem is that the level of monitoring to date has been minimal both geographically and in terms of variables considered. Monitoring often includes little more than records of municipal watersheds, incidental records on a few streams and long-term (e.g., five to 10 years) on one stream. Baselines do not exist for the majority of streams. The Forest Service has a duty to assess the condition and continued health of its aquatic resources. A good monitoring plan created with overview by an inter-agency monitoring committee is the best way to protect these resources which have historically been the first to be dispensed with in conflicts between multiple-use options.

Development of a Monitoring Plan

A good monitoring plan requires a good system of classification of land. Such a classification should be hierarchical. Land units should be defined by similar sets of variables at each level. Variables express a greater degree of heterogeneity, the higher the level in the regional hierarchy.

Selection of sites for monitoring is often done by the paired watershed approach. This is typically done without reference to any superstructure. Basins are selected which are close geographically in the hopes of being as similar as possible. Often single variables such as drainage area are the sole insurance of similarity. One watershed then becomes a representative of pristine conditions for the other "managed" watershed. Another approach is to observe one watershed over a period of years to note the series of performances in relation to management treatment. In order to allow instantaneous observation of performances of a given watershed type under different states of management requires a classification. This permits identification of a set of watersheds of similar capacity which only vary by present state of management.

Classification systems provide the theoretical grounds for planning scientific investigations and in effectively managing tracts of land. Many stream classification systems rely on single variables to identify stream types. For example, a stream supporting steelhead may be said to be different from one with coho. A stream with a riparian zone dominated by alder may be said to be different from one covered by Douglas fir. A stream on alluvial deposits may be said to be different from a bedrock controlled one. Stream width, depth, gradient, substrate composition, water velocity, temperature, etc. have all been used singly or in combinations to describe stream types. However, seldom do a few haphazardly picked variables significantly identify types. Riparian vegetation type may describe conditions for a brief period of vegetative succession. A manager would have very little use for a stream classification which would require a stream be reclassified each time vegetation changed; likewise, for changes in velocity, width, etc. Variables must be selected which represent long-term potential of a system. Daily, seasonal, or annual changes can only be understood against a backdrop of understanding of the capacity or potential of the system. Capacity of a system (e.g., a stream, watershed) is basically a theoretical concept, representing all *possible performances* or states. Variables can be selected to act as proxies for capacity at any level in a hierarchy of classification.

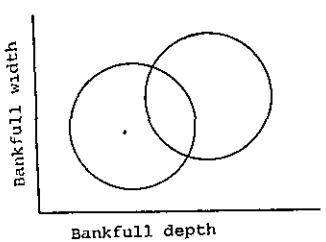
Definition of terms used to this point:

Capacity: Theoretical term for a potential of any system; this represents all performances of which the system is capable.

Performance: Any state of a system -- this is an observed event such as a current velocity at a point in time, a certain species composition in a riparian zone, etc.

Systems should be defined by capacity because if performances are used the basis for applying a given management strategy to two systems may be superficial similarity. Any two systems may look alike at some point in time but this does not mean that their capacities (long-term potentials) are equal. For example, two streams may have fish communities dominated at present by steelhead. For one of these streams, steelhead may be the species best adapted to all states of the watershed system in which the stream is embedded. For the other stream, steelhead may be found under a limited set of watershed states. Likewise, the mere lack of fish in any stream at present does not indicate lack of capacity to support fish. In fact, the stream may have had great fish production potential which was altered by poor logging practices. Poor management on top of this may assure that fish never return if the stream is classified as a non-fish stream. A good classification system should recognize long-term potentials and not just present state. The difference between two systems may be shown diagrammatically below. The zone of overlap represents points in time for which the systems had similar performances. X and Y axes represent two performances of a stream such as mean annual width and depth.

Figure 1.



Hierarchical land systems could be given labels such as region, zone, sub-zone, watershed system, watershed, stream network, stream segment, reach, and habitat type. Each land system subsumes the capacities and performances of all systems within it. The class of any system (i.e. at any level in the hierarchy) is defined by the capacity of the system itself and the environment it is found in. The environment of a system is the next higher hierarchical level. That is, a stream network system has a watershed as its environment. A watershed has a system of watersheds as its environment. Two watersheds classified by hierarhical classification would be said to be fundamentally different if found in two different zones even

though they have the same drainage area and fish species. For example, they may have different rock types, climates, hydrologic characteristics, etc.

Definitions to emphasize:

System: A land system of any size which can be defined by its unique capacity.

Environment: The higher level system which subsumes the collection of lower level systems within its geographic bounds. The environment is a single geographic unit and not a collection of discontinous spatial units. Environment is the framework in which any system evolves biologically and geologically. It is not just climate but the entire set of capacity determinants. An environment for a given system is just a system in its own right but at the next higher level.

What are the components of capacity which must be represented by sets of variables? These can be categorized as climate, substrate, biota, water, and culture. Substrate may also be decomposed into geology, soils, and topography. Some variables such as climate may be easily understood in broad geographic terms but data for specific locations are rarely available. Culture represents land use decisions; such decisions are often dependent on climatic, vegetational, geological, and other zonations, especially in primitive cultures.

Examples of variables representing each of these components of capacity are given in Table 1. Most of the variables can represent systems at any level in the hierarchy; the degree of generality becomes greater at higher levels.

Robert Bailey (USFS, Ft. Collins) has classified the entire United States into eco-regions. This systems emphasizes potential natural vegetation, Koeppen's climatic classification, and physiographic regionalization. This system does not utilize the full set of variables illustrated above. For example, culture or detailed descriptions of topography are not employed. At the scale at which eco-regions are drawn, the simplicity of deleting some variables may be convenient considering the fact that the remaining determinants of classification are broad capacity-type concepts.

Robert Hughes, James Omernik, and Mostafa Shirazi at USEPA in Corvallis, Oregon have developed a system of land classification which starts from Bailey's eco-regions. The heterogeneity of eco-regions is then described in a regionalization which identifies frequency distributions of facets of land units using features such as potential vegetation and soil types.

The type of classification emphasized in this document was initiated by Charles Warren in Oregon State University Department of Fisheries and Wildlife. Warren's classification contains all

components of a complete classification by capacity. Frissell et al. (1986) present ideas on stream classification at the lower levels in the hierarchy described above based on Warren's concepts.

McCullough (Columbia River Inter-Tribal Fish Commission) used Warren's theoretical concepts of system classification but started with Bailey's eco-regions. Identification of watershed types (pre-classified by drainage area and downstream slope) was done within eco-regions by utilizing soil series, slope, aspect, altitude, and solar radiation (calculated for winter solstice and equinox). These variables were determined for all facets of 0.014 mi2 size from a regular grid laid over each watershed. All variables except soil series were determined based on altitudes read from the grid system into computer programs which calculated characteristics of land facets. Multivariate statistical programs determined similarities between watersheds using the detailed descriptions of all facets comprising the watersheds. These similarities were displayed in multivariate space, allowing clustering of basins on the basis of many variables at a time. This procedure does not require predetermination of priority of any variable although only variables considered to represent capacity were used. This type of system for classification on any scale is useful and efficient given the ready availability of digital topographic map data from USGS. More information about applicability of computer classification of land systems can be obtained from Dale McCullough at the Columbia River Inter-Tribal Fish Commission.

Classification of all watersheds must start with selection of a given drainage area. With every change in drainage area proceding downstream, the character of the watershed changes. Also, the average stream bed slope changes downstream. Drainage area and map-derived stream slope for the half mile upstream from the basin mouth set the framework for further attempts to classify watersheds. These variables set the bounds for system capacity. Change in basin capacity with change in drainage area is reflected in the "river continuum" concept of Vannote et al. (1980). Management principles vary likewise on a continuum down a drainage network (i.e. longitudinally). It must also be recognized that management should vary from region to region, zone to zone, etc. (or laterally). A classification system sets up a regionalization on theory and experience. Future experimentation and monitoring help confirm the utility of the classification and suggest possible changes. This framework establishes logical units for management. Experience will dictate whether adequate management of a national forest can occur using a given hierarchical level or a lower one.

Given any national forest, classification systems such as Bailey's, McCullough's and Frissell's in sequence could be employed to work down through large to small spatial systems. A national forest should be broken down into eco-region and at least to zones at the next lower level. At its simplest level geology could be used to identify zones in an eco-region. The

full set of capacity determinants can be referred to if a more complete zonal classification is indicated. Classification of watersheds within these zones could utilize all variables specified above.

By using the previously mentioned systems to regionalize the forest and to find stream reaches of a given class, sampling sites are obtained. Within a reach (i.e. a stretch of stream within a stream segment having a homogeneous overall bed slope and geology which contains series of habitat complexes) samples for monitoring will be taken to represent a portion of the capacity of the reach, the watershed, zone, and region in relation to present state and history of management in this hierarchical framework. Fish sampling, for example, can take place by logical habitat clusters. These are repeating units containing riffles, pools, backwaters, side channels, etc. Riffles and pools act as units for species which can move sufficiently between them such as fish. The spatial organization of these habitat types can form logical sampling units for fish. Sample sites would not be simply a randomly chosen 100m reach but would be selected to include a habitat cluster. Replicates of these kinds of clusters could be sampled.

The stream reach is classified by the class of network in which it is embedded plus the capacity of the reach. The reach capacity (C) should be used in its classification. Proxy variables are given below. Reach performance (P) should be established as a baseline and then periodically monitored.

Reach classification

(A) upper bank condition (above mean annual peak flow line outward horizontally 100 ft)
- C: slope gradient; slope form
  - bedrock
  - soil type
- P: overstory vegetation type and cover density
  - understory vegetation type and cover density
  - % bare soil; evidence of erosion; classes of mass wasting

(B) lower bank condition (from mean annual peak flow line to channel edge)
- C: bedrock type
- P: substrate type and size composition
  - % bedrock exposed
  - % of overhanging banks by habitat type

(C) stream
- C: bedrock type
  - mapped gradient of stream bed over 0.5 or 1.0 mile
- P: substrate type; size composition
  - % bed fines by depth
  - % embeddedness (in riffles, pools)
  - % bedrock exposed by habitat

% surface area and volume of reach in habitat types (see Bisson's habitat classification)
depth distribution by habitat
mean height of boulder size classes above bed
discharge--flow frequency distribution; peak flows
sediment discharge in relation to water discharge
water chemistry
%of overall drop in bed elevation over 0.5 miles due to falls over bedrock, logs, chutes, cascades, riffles

(D) *biology*
C: species pool (fish, invertebrates, algae, aquatic macrophytes, beavers, other aquatic vertebrates)
P: juvenile fish counts
smolt counts plus spawning ground surveys
invertebrate species composition
fish species composition

(E) morphology, structure
C: sinuosity
proximity to reaches in network of different stream order
potential solar radiation analysis of reach accounting for topographic shading
P: calculation of solar radiation accounting for shading by riparian zone

Stream network classification

C: class of watershed
network structure
potential solar radiation analysis of network accounting for topographic shading
aerial photographic analysis of distribution of major pools
spatial analysis by gravity model of distribution of soil types in watershed relative to downstream study reach. This methodology is a framework for cumulative effects analysis
P: calculation of solar radiation accounting for shading by riparian zone
aerialphotographicanalysis(1·12000) of vegetation cover density, height, species;
degree of damming of reaches in network by beaver activity or log jams
aerial photographic analysis (1:2000) of mainstem to determine whether reach is representative of series of reaches in mainstem; distribution of large wood

Watershed classification

C: watershed is classified by class of watershed system, zone, region, etc. in which it is embedded
drainage area
gradient of stream bed in downstream 0.5 to 1.0 mile
also see explanation above of additional variables used in description of capacity of watershed
P: aerial photographic analysis (1:12000) of vegetation cover density, height, species
use timber stand types, stocking density available in mapped surveys
aerial photo analysis of % bare ground; degree of erosion hazard from watershed; evidence of mass failure hazard and historical failures

Integration of Physical, Chemical, and Biological Systems Provided by Classification

A good classification system is the proper basis for a good monitoring plan. A good classification system which is *progressively validated and refined with experience* will be a good framework for future monitoring and land management as system performances change through the years. Such a framework provides the means for effective management at minimal costs. Other types of monitoring schemes could reduce costs even more but at a loss of understanding of the systems and a loss of predictive ability.

Use of a classification system would allow a cost savings through its broad geographic scope. That is, some watersheds or streams in one national forest could represent behavior of a class of system found predominantly in an adjoining national forest. Duplication in monitoring efforts is then reduced.

The type of general classification system proposed also lends itself to adoption by many different agencies with interest in environmental monitoring. For example, one primary capability determinant used in classification is geology. The mixture of rock types of a watershed set the general chemical regime for surface and groundwater on the watershed. This is a partial determinant of aquatic productivity, sensitivity to acid rain, and to nutrient enrichment. Therefore, a classification system is an appropriate framework for monitoring of acid rain by EPA, nutrient problems by a State Environmental Quality agency, and management of watersheds and their resources by the USFS.

The combinations of rock types found in watersheds above a given reach plus overall bed slope of the reach are determinants of system capacity for aquatic macrophyte distribution. Scientific studies by aquatic botanists become more significant ecologically by enabling linkage of the physical and biological systems on small as well as large geographic scales. Ability to

use a general classification system as a monitoring framework on a large regional basis would be considerably aided by geographic computer analysis. These methods allow overlaying maps of many resources and production of integrated maps. Such capabilities have been explored by many agencies such as Forest Service, USGS, and EPA.

Provision for Adequate Monitoring

If a regionalization or classification system were developed to adequately represent watershed/stream types, an important benchmark for monitoring would be established. The Forest Service's point of origin in discussions of monitoring is what it chooses to budget for monitoring and not what is adequate. It is our position that we must first determine what is necessary for proper management of resources and then determine how this can be achieved. Monitoring funds should be linked to the receipts from major land disturbing activities -- timber, grazing and mining. Unfortunately, grazing, which is a major cause of non-point source stream degradation, is a money-losing venture of the Forest Service which cannot provide funds from receipts for use in stream protection and monitoring. The US Government, if it considers it in the interest of the few ranchers to subsidize grazing, should also consider the interests of other users of public rangeland who enjoy streams and range in good condition. This necessitates adequate funding for protection, rehabilitation, and monitoring.

Some Investigations which can be Facilitated by a Good Monitoring Framework

A good monitoring framework provides the basis for a refined understanding of many biological and physical relationships of importance to land managers. Among the questions which can be explored are

Biological

What is the carrying capacity of streams of different classes and states within a class (zonal or sub-zonal level study)?

What is the relationship between carrying capacity and stream flow and temperature regime (regional level study)?

What is the relationship of carrying capacity to extent of watershed and riparian zone management (i.e. spatial organization of timber stand history and erosion sources in relation to the downstream study reach)?

What is the threshold of biological response for fry emergence from gravel in relation to percentage of bed fines?

Physical

What is the average natural erosion rate from watersheds of a given class?

What percentage over natural erosion rate is due to different degrees of management in watersheds of a given class?

What are the rates of recovery of stream reaches of different classes in terms of reduction in bed fines, depth distribution, % surface area by habitat type, surface substrate size composition, mean channel width, riparian vegetation density?

What is the effectiveness of mitigation methods?

What is the relationship between quantity of sediment delivered and increase in embeddedness or fines?

What percent over natural erosion rates can be handled by different classes of reach without changing % bed fines?

What is the extent of downstream impact (e.g., sediment, temperature increase) to the mainstem from a disturbance originating at a given reach. This type of study is necessary to establish the appropriate scale for measurement of cumulative effects throughout a large basin?

Implementing the Monitoring Plan

In the development of a network of monitoring stations, consideration must be given to the kinds of variables and intensity of sampling given to each station. Because some types of monitoring are more labor intensive, it may be better to do a good job sampling in a few carefully chosen stations than to dilute the effort by extensive sampling without a real plan formulated. For example, stream hydrograph stations are expensive to run and maintain. The USGS may or may not have adequate coverage to represent watershed classes. Usually their stations do not well represent small drainages. Hydrographic regimes can often be correlated to other systems with similar climate, geology, and soils. Most invertebrate sampling programs are labor intensive but provide a good biological index of year-round environmental conditions not as clearly afforded by migratory fish, which are subject to downstream and oceanic effects. Meaningful studies on anadromous fish can be performed but the best of these may require careful monitoring of redd counts associated with smolt output. Smolt output measurement requires investment in weirs. Juvenile fish counts may suffice for general monitoring on most streams. However, a certain stream class may be represented by an index stream for which more intensive studies such as smolt output can be done. Such streams may be those important in the US/Canada Pacific Salmon Treaty negotiations because of the opportunity to track production of significant anadromous stocks and their contribution to ocean fisheries.

Some of the monitoring variables can be handled by

experienced crews of two to four covering extensive reaches on numerous streams per summer. Fred Everest and James Sedell (USFS Forest Science Lab, Corvallis, OR) have had stream survey crews covering physical and biological parameters on numerous streams for years. McCullough (CRITFC) also has extensive experience measuring physical characteristics of long stream reaches in Northwest Oregon.

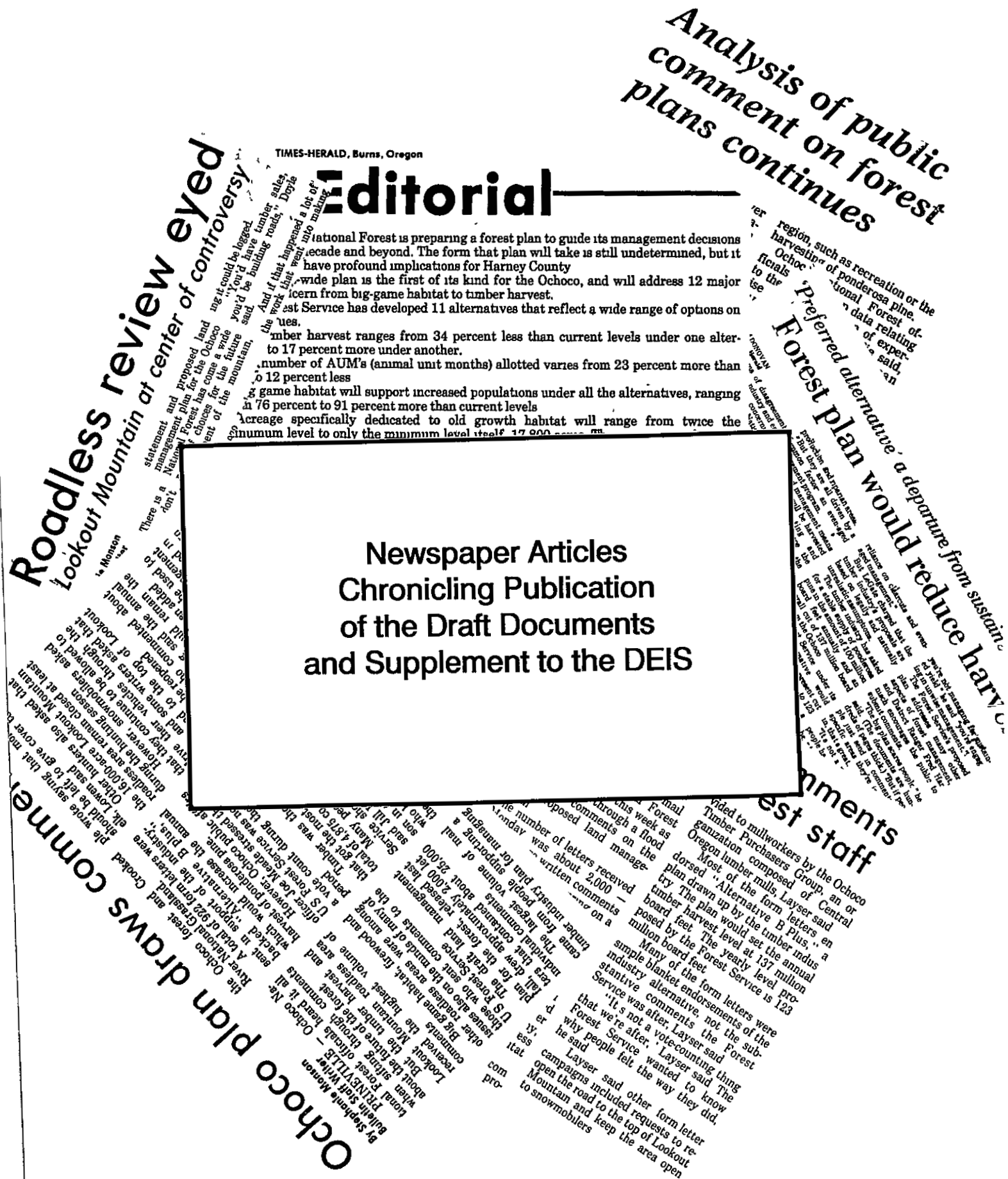
There are a lot of advantages in having some degree of monitoring on a large percentage of streams. This would enable confirmation of the utility of the classification and would provide an extensive baseline from which to assess further change. Adequate monitoring also requires long-term sampling of streams which are key indicators because of their fish stocks or representative bio-physical conditions. Both intensive and extensive monitoring should be based on a good watershed/stream classification and an inter-agency monitoring committee should be established to guide planning and review of monitoring in the Northwest.

Appendix I

Response to Public Comment

Section 5

Newspaper Articles Chronicling Publication of the Draft Documents and Supplement to the DEIS



Newspaper Articles Chronicling Publication of the Draft Documents and Supplement to the DEIS

Forest Service prepares 15-year resource plan

A guide to the management of resources on the Ochoco National Forest and Crooked River National Grassland is now available for public review and comment through Dec. 20, 1986, said Dave Rittersbacher, forest supervisor.

"For the first time in the history of the Ochoco, planning documents are available for review which display alternative choices for integrated management of all the natural resources on the Forest and Grassland," he said. The forest plan is being prepared at Congress's request as part of the National Forest Management Act of 1976.

A reviewer's guide, draft proposed forest plan, the draft environmental impact statement which includes information on a Wilderness proposal, alternative mats and appendices are available at all offices of the Ochoco National Forest. Additionally, copies will be available for loan from the Crook, Jefferson, Harney and Deschutes County Libraries.

"We will be hosting open house public meetings to help show folks how to find what they may be interested in and assist them in understanding the planning documents," Rittersbacher explained. "We plan to meet with interested groups and organizations and will arrange such meetings at their request. Each person's thoughts, ideas, concerns along with their reasons, will be invaluable. they will be used to help fashion the final forest plan for the Ochocos," he added.

Public meetings are scheduled in Prineville for Tuesday, Oct. 14 at the Prineville Fire Hall from 4 p.m. to 7 p.m. A public meeting will be scheduled in Paulina with the date and location to be announced later.

Forest officers and planning team members will be available at the open house to answer questions. Displays will be used to give an overview of the plan and each of the 11 alternatives. No formal presentations are planned.

"The meetings will be informal and relaxed," Rittersbacher said. "They are designed to provide an opportunity for individuals to get an overview of the issues and alternatives and discuss how they might best prepare any comments."

The Ochoco National Forest has been working on the development of this plan for the past four years. The intent of preparing a comprehensive land and resource management plan is to consider all resources under that one plan. "Forest planning is not new. However, in the past, resource planning has generally looked at one resource at a time, not considering important integrated interrelationships," Rittersbacher explained.

The life of the plan is 10 to 15 years, but it projects the effects of management for up to 150 years.

The documents under review

(See FOREST, page 3)

center around key issues the Ochoco received from the public early in the planning process. Alternatives were designed to respond to the key issues which provide varying levels of goods and services.

Some of the alternatives will emphasize certain resources over others in order to address specific concerns. When one resource is highlighted, trade-offs occur. For example, if wildlife habitat is emphasized, then other resources such as timber sales, roadless areas and big game will be affected, some positively, some negatively.

"Integrated forest planning more clearly demonstrates the actual complexities involved in managing the National Forest for multiple benefits. Relative differences between alternatives are highlighted so choices can be made," Rittersbacher noted.

Public Information Officer Joe Meade suggested that the public review the forest plan in steps and not become overwhelmed with the stack of information provided.

The plan provides a letter from Rittersbacher that introduces the plan and the intent of the planning team. A a reviewer's guide and response form highlights the plan and provides a jumping-off place for the review.

The proposed land and resource management plan for the Ochoco focuses on the prefered alternative and how it will be implemented. The first few pages of the volume has a record of major decisions and offers comparisons to current practices.

A second volume, the draft environmental impact statement, gives detailed descriptions of all 11 alternative plans. The summary gives an overview of the alternatives. Details on the plans can be found throughout the book. Every book has an index that will lead reviewers to specific issues of interest, Meade said.

The alternative maps show the impact of each alternative on

research tool that can stay on the shelf, Meade said. "Most people won't need that level of detailed information to form their response."

Comments on the forest plan will be solicited nationally and comments from local residents won't have any more weight than those that come from New Jersey, Meade explained. "Because the Ochoco is a national forest, every citizen is considered a stockholder. We do expect to get a large number of comments from [illegible] groups. The timber interests, gr[illegible] and people who use the for[illegible] their livelihood or recrea[illegible] he said.

"All public comments r[illegible]ed will be analyzed and [illegible]sidered in the preparati[illegible] final documents," Rittersb[illegible] said. "It's important tha[illegible] receive comments prior to [illegible] 20." A final forest plan i[illegible]ticipated within a year [illegible] public comments are rece[illegible] For additional information, [illegible]tact offices of the Ochoco [illegible]tional Forest.

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: Central Oregonian

Where published: Prineville, OR

Date of issue: 9-16-86

Sent by: Inez Cuellar

Stationed at: Ochoco N.F.

Forest Officers:

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FS 1600-2 (11/59)

GPO - 1984 O - 524 [illegible]

Federal Register Notice
p. 32533 9/12/86
Vol. 51 No. 177

EIS No. 860367, Draft, AFS, OR, Ochoco National Forest and Crooked River National Grassland, Land and Resource Management Plan, Due: December 20, 1986, Contact: David Rittersbacher (503) 447-6247.

Ochoco forest plan open for comments

By Stephanie Monson
Bulletin Staff Writer

PRINEVILLE — A proposed land management plan for the Ochoco National Forest would increase the timber harvest slightly over the next 10 years, improve 19,000 acres along streams and provide 13,000 cords of firewood annually.

The proposed plan plots the future of the 947,567-acre forest over the next 10 years and looks 150 years into the future. It contains 11 alternatives, one of which is preferred by the Forest Service.

Joe Meade, public affairs officer for the Ochoco forest, said the plan is only a proposal and the Forest Service is looking for comment on all the alternatives and on the draft environmental impact statement.

"In no way is that work cast in stone," Meade said.

Highlights of the Forest Service's preferred alternative include:

—An increase in annual timber sales from 124 million to 133 million board feet. About 123 million board feet would include green saw-logs, 71 percent of which would be ponderosa pine.

The remaining timber to be sold would include logs in the Forest Service's salvage program and firewood.

—The protection or improvement of 19,000 acres of land along 800 miles of streams, with special emphasis on anadromous (spawning) fish streams.

—Enough land to support 2,980 elk in the first decade. By the fifth decade of the plan the number would decrease to 2,550 because of the timber program.

—The protection of 26,350 acres of old-growth forest not in wilderness areas.

—The management of 20 developed campgrounds and the expansion or development of four.

—The cutting of about 13,100 cords of firewood annually.

—A recommendation that Congress classify 5,000 acres of federal lands in the Deschutes-Steelhead Falls study area as a wilderness area.

—The construction of 130 miles of recreation trails and the maintenance of 80 miles of existing trails.

The plan was written in response to the National Forest Management Act of 1976, which requires every national forest to develop a comprehensive plan to manage its land.

Copies of the plan and its accompanying draft environmental impact statement have been sent to those on a U.S. Forest Service mailing list and are available at all Ochoco forest offices and at the Crook, Jefferson, Harney and Deschutes county libraries.

The public may comment on the proposed plan and environmental impact statement until Dec. 20. After that date comments will be analyzed and a final plan drawn up.

A series of open houses to answer questions about the plan is scheduled to begin in mid-October, with the first meeting set from 4 to 7 p.m. Oct. 14 in the Prineville Fire Hall.

An Oct. 15 meeting is scheduled from 4 to 7 p.m. in the commons room at Obsidian Junior High School in Redmond, and a meeting during the same hours will be held at Madras High School Oct. 30.

An open house also will be held from 6:30 to 7:30 p.m. Nov. 19 at the Pau Mau Club in Paulina. A discussion for those holding permits to graze cattle on the forest will follow.

Earl Layser, Ochoco forest planning staff officer, said forest officials will also be available to give presentations on the plan to groups in the area.

He said people reading the plan should use the reviewer's guide, which outlines where specific information can be found in the documents.

For more information or to arrange a presentation on the proposed plan, call Meade or Layser at 447-6247.

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: The Bulletin
Where published: Bend OR.
Date of issue: 9-18-86
Sent by: Inez Cullan
Stationed at: Ochoco N.F.

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FS 1600-2 (11/66)

* GPO 1984 D 524,540

Senators' vote on forest funds causes ripples

By Stephanie Monson
Bulletin Staff Writer

A Senate vote Tuesday to increase the Forest Service's road-building budget by $68 million next year won't produce a flurry of activity in Central Oregon forests.

Despite the vote, agency officials say there are no immediate plans to build roads on roadless areas in the Deschutes and Ochoco national forests.

But another section of the legislation has a local environmentalist upset.

Lawson LeGate, vice chairman of the Oregon chapter of the Sierra Club, is criticizing a provision that would prohibit the public from filing appeals on timber sales bought back under a federal buyout plan last year and scheduled to be resold in upcoming years.

"A lot of things have happened since those sales were made," said LeGate, of Bend. "It exempts all of those buyback timber sales from any kind of review."

The Senate voted 53 to 42 Tuesday to increase the Forest Service's road-building budget from the $178 million requested by the agency to $246 million and to increase next year's timber sales volume to 11.2 billion board feet.

The vote followed one last week in which the Senate narrowly rejected a proposal to increase the road budget to $254 million and the timber sale program to 11.4 billion board feet from 10 billion.

The amendment containing the revised budget and sale provisions approved Tuesday was proposed by Sen. James McClure, R-Idaho, and supported by Sen. Mark Hatfield, R-Ore.

In contrast, the House Appropriations Committee voted in late July to reduce the budget by about $44 million. The differences between House and Senate bills must be resolved in conference committee before the budget finally is approved.

A spokeswoman for Hatfield's office said the senator approved of the increased road budget because he believes it is necessary to increase the harvest level.

It is important to have enough money to reach lands released for multiple uses following resolution of the 1984 Oregon Wilderness Bill, the spokeswoman said.

The Forest Service is "not uncomfortable" with an increased road budget, said Chad Olsen, staff director for program development and budget for the Forest Service's Region 6 office in Portland.

Olsen said there are areas on some national forests where more roads are needed.

However, Larry Mullen, planning staff officer with the Deschutes National Forest, said his office has no plans to enter roadless areas for the next five years, except perhaps for geothermal exploration.

Joe Meade, public affairs officer for the Ochoco National Forest, said there currently are no plans to build roads into roadless areas in that forest either.

Under a proposed management plan for the forest, about 127 miles of roads would be built into roadless areas in the next 50 years, Meade said.

While local officials may have no plans to build into roadless areas, LeGate said such decisions are political and if Congress orders the Forest Service to build the roads, they will be built.

If people want to see changes in the budget, LeGate said, they will have to pressure Congress.

LeGate argued that not allowing the public to appeal timber sales scheduled to be resold "violates the notion that these (forests) are public resources."

He said timber companies get a second chance to buy the sales, but the public will not get a chance to object.

LeGate also objected to another provision of the bill directing the Forest Service to manage national forests under current plans pending completion of long-term land-management plans.

He said environmentalists have interpreted that language to mean the Forest Service does not have to follow land-management laws — including the wilderness bill — passed since those plans were written in the 1970s.

NEWSPAPER CLIPPING SLIP

Name of paper: The Bulletin
Where published: Bend OR.
Date of issue: 9-18-86
Sent by: Inez Cullan
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Forest Officers
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Debate on Ochoco plan heats up

By Stephanie Monson
Bulletin Staff Writer

PRINEVILLE — A proposal to cut more timber on the Ochoco National Forest in the next 10 years than in each of the four decades after that has drawn opposition from some of those studying the plan.

"We are concerned about the departure aspect," said John Morgan, logging manager at Ochoco Lumber Co in Prineville Departure is the practice of cutting more timber annually than the number of board feet that can be grown back

"Departure is a real short-term look at natural resource management," said Don Tryon, southeast field coordinator for the Oregon Natural Resources Council.

Timber industry officials, environmentalists and those who depend on tourists visiting the 950,000 acre Ochoco forest, and Crooked River National Grassland all have a stake in the proposed land management plan.

The plan includes the level of logging that will be allowed on the forest as well as plans for sustaining big game, revitalizing stream banks, road building, wildlife habitat and recreation.

The U S Forest Service released the plan and accompanying draft environmental impact statement a month ago, giving the public until Dec. 20 to comment on the contents

Ochoco forest officials will be on hand to answer questions about the documents at an open house from 4 to 7 p m. Tuesday in the Prineville Fire Hall, 500 N Belknap St Another open house has been scheduled from 4 to 7 p m Wednesday in the commons room at Obsidian Junior High School in Redmond.

The environmental impact statement contains 11 alternatives for managing the forest over the next 10 to 15 years One of them is preferred by the Forest Service

The proposed plan outlines how forest officials would implement the preferred alternative

The plan, which is similar to the one released last winter on the Deschutes National Forest is in response to the National Forest Management Act of 1976 requiring each national forest to develop a land management plan.

While Morgan said he and other timber officials have not had much time to look at the plan, he said issues that concern them include the logging schedule and timber supply.

The plan would allow a harvest of 133 million board feet over the next 10 years A total of 123 million board feet of that would be included in the allowable sale quantity, defined as green timber suitable for sawing

The total allowable sale quantity would decrease to 89 million board feet after 50 years

If the Forest Service implements its preferred alternative a drop in the sale quantity over time is necessary to provide the forest with things such as visual corridors and recreation, said Joe Meade, Ochoco forest public affairs officer

Meade said the sale quantity is kept high in that alternative over the next 10 to 15 years to give the community time to adjust to a reduced harvest

However, Morgan said a declining timber supply has industry officials concerned Having a stable timber supply is important he said

Those in the timber industry think the Forest Service has underestimated by about 10 percent the amount of timber that may be cut annually, Morgan added.

However, Tryon said the plan calls for seriously overcutting the Ochoco forest.

Employees in the Forest Service's timber program and loggers long have said that the forest is being overcut, Tryon maintained.

The proposed plan also would have a severe impact on big game such as deer and elk because not enough land would be left for winter range he added

The plan would increase the acreage set aside for winter range from 32 672 to 72 881

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper
The Bulletin

Where published
Bend OR

Date of issue
10-13-86

Sent by
Ivy Cullen

Stationed at
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FS 1600 2 (11/59)

Mill stays in local hands

After nearly a month of negotiations the Louisiana Pacific mill in town is now Prineville Sawmill Company The mill, which was recently assessed at $2,958 600 for the tax rolls was purchased by local lumberman Craig Woodward

Papers finalizing the sale were signed Sept 25 and Woodward took over the next day. He had no comment on the price he paid for the facility and said he had no major changes in mind. "We want the change-over to have as little impact as possible" he said. We ll stay with one shift until things pick up If we start hiring, we ll give former Louisiana Pacific employees who were laid-off when the mill cut back a chance to work '

Woodward has been an independent logger since 1968 He and his wife Lucy are both natives to Central Oregon both going to high school in Prineville The couple formerly owned a sawmill in Burns which they sold in 1980 He is also the owner of Evergreen West Inc a logging company

Louisiana Pacific purchased the Prineville mill in 1973 and was employing 52 people on one shift A fire Aug 17, 1985 destroyed the planer complex and 1 million board feet of pine lumber The planer was completely rebuilt in November of 1985

The company currently has eight other mills in the state. The sale takes the nation-wide company out of the Prineville area although they have retained their Forest Service timber contracts said Jim Beldin industrial relations manager for the corporation

As part of the sale agreement, Woodward has an agreement with Louisiana Pacific to buy delivered logs from those contracts That flow of timber should keep the Prineville Sawmill Company in logs for the near future ' I don t see a short-term shortage Woodward said But, it depends on future allowable cuts in the forest. '

Woodward will be keeping an eye on the new proposed forest plan being developed by the Forest Service, as will every other timber concern in the area. "My idea of multiple use is red meat and timber " he said. "I appreciate the forest as much as anyone but some of the people supporting wilderness don't see the bug kill or decay A well managed stand is a beautiful stand. An unmanaged stand is a jungle."

BLM proposes land exchange

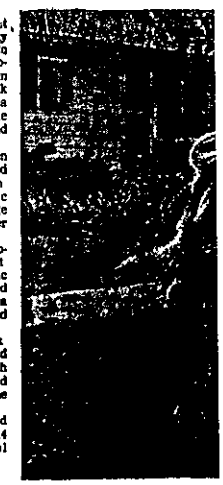
A land exchange proposal that would transfer approximately 55,000 acres of private land into public ownership will be the subject of a discussion at an open house in Mitchell, said Dick Cosgriffe Central Oregon area manager for the Prineville District of the Bureau of Land Management (BLM)

"The purpose of the open house is to answer questions and provide information to interested members of the public regarding the land exchange that would take place in Wheeler County, he said

The swap would exchange approximately 20 000 acres of scattered isolated tracts of public land, most of which is timbered but lacks public access, for a 5 000 acre block of private land which has public access

The lands included in this exchange are located in and around Sutton Mountain which lies between Mitchell and Twickenham located next to the John Day River

"The open house will be held from 4 p m to 7 p m on Oct 14 in the Mitchell School Cafeteria Cosgriffe added.



Central Oregonian
10/9/86

THE OCHOCO NATIONAL FOREST
& CROOKED RIVER NATIONAL GRASSLAND

****
* *
* WILL BE HOSTING *
* PUBLIC MEETINGS ON THE *
* PROPOSED FOREST PLAN *
* AND DRAFT ENVIRONMENTAL *
* IMPACT STATEMENT *
* *
****

SCHEDULED MEETINGS:

PRINEVILLE

OCTOBER 14TH–4 PM TO 7 PM
PRINEVILLE FIRE HALL

REDMOND

OCTOBER 15TH–4 PM TO 7 PM
OBSIDIAN JR HIGH SCHOOL–CMMS RM

MITCHELL

OCTOBER 23RD–7 PM TO 9 PM
MITCHELL COMMUNITY HALL

MADRAS

OCTOBER 30TH–4 PM TO 7 PM
MADRAS HIGH SCHOOL–RM 12A & B

BURNS

NOVEMBER 6TH–4 PM TO 7 PM
MUSEUM CLUB ROOM

PAULINA

NOV 19TH–6 30–7 30 PM GEN MTNG, 7 30 PERMITTEES–PAU–MAU CLUB

For Additional Information Contact:

Earle Layser, OCHOCO NATIONAL FOREST–447–6247

Issues considered in forest plan affect Prineville

Information on the future of the Ochoco National Forest and Crooked River National Grassland will be presented to the public at a series of open houses held by the U S Forest Service

The Forest Service is in the process of preparing its Draft Proposed Plan and Draft Environmental Impact Statement for the Ochoco and Crooked River National Grassland Information about the alternative plans will be presented Oct. 14 at the Prineville Fire Hall and Oct. 15 in Redmond at Obsidian Junior High

"Forest personnel will be available from 4 p m to 7 p m to discuss the Forest planning documents and we encourage everyone who has an interest in the Forest and Grassland to attend one of the upcoming information meetings ' explained Dave Rittersbacher, forest supervisor "We will have displays to help provide a simplistic overview of the Forest planning process and highlight the key issues which the plan is designed to address Additionally, maps and information will be posted illustrating 11 alternative ways the Forest and Grassland could be managed."

There will be no formal presentations, the session is for individuals with concerns or questions, said Joe Meade forest public information officer "We're not expecting a lot of feedback from the meetings [illegible] that people will [illegible]

explained

The planning documents, when finalized will guide management of the Forest and Grassland for the next 10 to 15 years "The alternatives which have been developed offer choices on how different areas of the Forest and Grassland could be managed," Rittersbacher said.

The following are key issues or questions which the plan addresses

To what extent should firewood be provided to meet demand? Currently, about 2000 permits are issued annually for poles posts and firewood As the demand for firewood increases, conflicts between commercial sales snags for wildlife and scenic corridor management are developing

What should be the level of timber production? Over 80 percent of the forested land in Crook and Harney Counties is public land Maximum mill capacity in the two counties is approximately 385 million board feet annually, which exceeds timber volumes actually processed in the past The preferred plan alternative E-Departure, calls for a five percent decrease per decade in timber harvests for the first five decades, then an increase in decades six through 10

Should habitat be provided for increased population of big game? How much roadless recreation opportunity should be provided? This issue also considers a Wilderness recommen[illegible]

(Continued from page 1)

dation for the Deschutes Canyon-Steelhead Falls area on the Grassland To what extent should the Forest provide for winter sports activities? The Forest has received requests to manage Bandit Springs at Ochoco Summit primarily for cross country skiing opportunities and use is high on Lookout Mountain

How can activities on the Forest and Grassland benefit social and economic wants and needs of local communities? Receipts from the Forest exceed 40 percent of some counties total annual county revenues with the timber industry, livestock grazing and recreation vital to the areas economic base

What is the appropriate level of livestock grazing and intensity of range management? How should riparian areas be managed to meet various resource needs? Approximately 14 000 cattle and 3,500 sheep are grazed on the Forest and Grassland

Though riparian areas occupy only two percent of the land base, they offer the greatest areas of conflict between livestock and scenic, recreation, and wildlife needs

What road system should be provided to meet public commercial and administrative access needs? Should the Forest and Grassland limit the emphasis placed on scenic resources? How much old growth habitat should be provided? How much habitat should be provided for wildlife species dependent upon snags?

The upcoming meetings will provide the public with a better understanding of the Forest planning documents hopes Rittersbacher This is where we are asking for the public to help us by affirming or identifying a mix of choices they would like to see reflected in the final Forest plan ' he explained It is our hope that folks will give us written comments on how they feel about the draft documents which we can then incorporate into the final Forest plan As people respond to our planning documents it will be very helpful for them to include supportive reasons for their thoughts This will help us incorporate the public comment into the final plan '

Comments must be received by Dec 20

Public information meetings will also be held in the following communities Mitchell Oct 23 at the Community Hall from 7 p m to 9 p m Madras Oct 30 at Madras High School Room 12a and 12b from 4 p m to 7 p m Burns Nov 6 at the Museum Club Room from 4 p m to 7 p m and Paulina Nov 19 at the Pau Mau Club general meeting 6 30 p m to 7 30 p m, permittee meeting 7 30 p m

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: Central Oregonian
Where published: Prineville OR
Date of issue: 10-1-81
Sent by: Fran Cullen
Stationed at: Ochoco NF

Forest Office: You are requested to clip any important newspaper article concerning forestry or the work of the Forest Service Attach this gummed slip to the article and after filing in the

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: The Bulletin
Where published: Bend OR
Date of issue: 10-24-86
Sent by: Tony Cuellar
Stationed at: Ochoco NF

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FS 1800-8 (11/80) GPO

Roadless review eyed

Lookout Mountain at center of controversy

By Stephanie Monson
Bulletin Staff Writer

PRINEVILLE — There is a saying in Prineville that you don t plant your garden until the snow melts from the top of Lookout Mountain

With an elevation of about 7 000 feet, the steep-sided mountain is one of the highest and most imposing peaks east of Prineville

You can see this (mountain) from Redmond said Big Summit District Ranger Don Doyle, surveying the land around the mountain from atop the summit.

The Lookout Mountain roadless area, a tree-covered landscape about 25 miles from Prineville that is home to deer elk, hawks and other animals recently has come into a crossfire involving cross country skiers, loggers, environmentalists and hunters.

With the release in September of the draft environmental impact statement and proposed land management plan for the Ochoco National Forest has come a wide range of choices for the future management of the mountain Doyle said

Since 1979 Lookout Mountain has been at the center of a 16 580-acre roadless area. Snow mobiles were the only motorized vehicles permitted in the area.

It also was studied for inclusion in the 1984 Oregon Wilderness Bill.

The draft environmental impact statement contains five alternatives for the future of the roadless area ranging from keeping it the same size to shrinking it to 2 950 acres

The U S. Forest Service s preferred alternative would reduce the roadless area to the 2 950 acres encompassing the top of the mountain The rest would be allocated for general forest use, meaning it could be logged.

You d have timber sales you d be building roads,' Doyle said.

And if that happened a lot of the work that went into making Lookout Mountain what it is today would be lost said Don Tryon, southeast field coordinator for the Oregon Natural Resources Council

Tryon who in 1979 was instrumental in getting Lookout Mountain designated as a roadless area said the rationale back then was that some roadless areas other than wilderness should be set aside

By not being designated a wilderness area, Lookout Mountain could be a place where some trails and perhaps some rough facilities for cross-country skiers hikers and hunters could be built Tryon said

It could be a place where you really could gear it to some of the (recreational) activities he said

However the Forest Service now is planning the future of the mountain around the timber harvest level Tryon charged and has set aside earlier goals of making it a recreation area

Tryon contended that the area that would be left roadless contains little merchantable timber

Dave Mayfield president of the Ochoco Elk Hunters also disapproves of Forest Service plans for the mountain.

Mayfield who emphasized that his organization has not yet taken a position on the plan argued that if the area around Lookout Mountain is logged critical deer and elk winter range would be lost.

There is a very large number of hunters who like to hunt roadless areas,' he said A lot of real, true hunters like to get in there, where they can t hear the rigs or see the rigs

If the roadless area around the mountain is reduced Mayfield predicted, fewer hunters will come to the Ochoco forest meaning a loss of revenue for Prineville businesses he said

However, John Morgan logging supervisor for Ochoco Lumber Co in Prineville said logging would not necessarily hurt Lookout Mountain

I think that you can have a balance of everything he said

If the area was logged gradually rather than being clear-cut all at once the impact of harvesting around the mountain would barely be felt Morgan argued

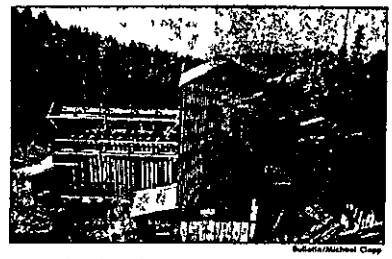
The ticket to it is moderation he said

Doing a good job of logging could make cutting timber on the mountain feasible, said Pat Wick, a Prineville resident who is a state representative to the Oregon Nordic Club

As long as they do a good job of managing the timber I don t have any objection he said.

Joe Meade public affairs officer for the Ochoco forest emphasized that no firm decision has been reached on how the area will be managed That will come after the public comment period on the plan ends Dec 20

There is no specific cast in stone treatment for Lookout



Bulletin/Michael Clapp

Abandoned mine site marks trailhead

Bulletin/Michael Clapp

Doyle left and Meade walked top of Lookout Mountain

Forest plan comments asked

Open house public information meetings for the Ochoco National Forest Draft Proposed Plan and Draft Environmental Impact Statement began in Prineville and Redmond on Oct 14 and 15

A public information meeting on the Ochoco plan will be held in Burns on Nov 6 at the Museum Clubroom from 4 to 7 p m

"Forest personnel will be available to discuss the forest planning documents and we encourage everyone who has an interest in the Ochoco forest and grasslands to attend one of the meetings Dave Rittersbacher forest supervisor, said

"We will have displays to help provide a simplistic overview of the forest planning process and highlight the key issues which the plan is designed to address Maps and information will be posted illustrating 11 alternative ways the forest and grassland could be managed," he said

When finalized the planning documents will guide management of the Ochoco National Forest and Crooked River National Grasslands for the next 10 to 15 years

Interested persons are invited to submit written comment on how they feel about the draft documents

"As people respond to our planning documents it will be very helpful for them to include supportive reasons for their thoughts This will help us incorporate the public comment into the final plan ' Riottersbacher said

Written comments must be received by the Ochoco National Forest supervisor by Dec 20

Copies of the draft plan can be obtained from the Snow Mountain District office in Hines or can be seen at the Harney County Library

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: [illegible]
Where published: [illegible]
Date of issue: [illegible]
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1800-8 (11/80) GPO

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: Central Oregonian
Where published: Prineville-OR
Date of issue: 10-28-86
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Stationed at: Ochoco N F

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FS 1600-2 (11/79)

*GPO 1984 D 524 560

Forest Service to hold information

The U S Forest Service will be holding an open house in Madras to discuss with the public its proposed plan for Ochoco National Forest and Grassland The session will be Thursday, 4-7 p m at Madras High School, room 12a and 12b

Public Information Officer Joe Meade encourages those who missed the meeting in Prineville to attend The session is to discuss the Forest Service's planning documents, which will guide management of the Forest and Grassland for the next 10- to- 15 years, Topics include habitat for wildlife and big game, the Forest Service's role in providing winter recreation, the appropriate level of livestock grazing and intensity of range management

For more information, call Joe Meade at 447-6247

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: The Bulletin
Where published: Bend OR
Date of issue: 11-18-86
Sent by: Inez Cuellar
Stationed at: Ochoco N F

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Owl plan suggested

SALEM (UPI) — Gov Vic Atiyeh entered the battle over spotted owls Monday by offering a compromise that involves trading wilderness land for harvestable timber land to provide adequate habitat for the birds

"I would agree to set aside unreserved suitable timber harvest land for the spotted owl only if a corresponding amount were traded from existing wilderness," Atiyeh wrote in a letter to James Torrence, Pacific Northwest regional forester

Burns, OR 11/6/86

Forest Service holds info meeting

Representatives of the Ochoco National Forest will hold an open house Nov. 11 from 4-7 p.m. at the Harney County Museum Club Room to discuss the Ochoco National Forest Plan. District Ranger Fred Harnisch and other forest employees will explain the plan and solicit comment from visitors.

11/12/86

Editorial

The Ochoco National Forest is preparing a forest plan to guide its management decisions into the next decade and beyond The form that plan will take is still undetermined, but it will certainly have profound implications for Harney County

The forest-wide plan is the first of its kind for the Ochoco, and will address 12 major areas of concern from big-game habitat to timber harvest

The Forest Service has developed 11 alternatives that reflect a wide range of options on the 12 issues

The timber harvest ranges from 34 percent less than current levels under one alternative, to 17 percent more under another

The number of AUM's (animal unit months) allotted varies from 23 percent more than now to 12 percent less

Big game habitat will support increased populations under all the alternatives, ranging from 76 percent to 91 percent more than current levels

Acreage specifically dedicated to old growth habitat will range from twice the minumum level to only the minimum level itself, 17,800 acres There are currently about 80,000 acres of old growth habitat on the forest

The alternatives offer a range of choices for the amount of roadless area ranging from only that now in wilderness to several additional roadless areas and more wilderness

Firewood taken from the forest is tied closely to the timber harvest, as most firewood is provided by logging residue It may vary from high levels to low, depending on the plan

Other issues addressed by the alternatives are social and economic effects, riparian management, the transportation system, scenic qualities, snag management, and winter sports

By law, the Forest Service must name a preferred alternative, but Fred Harnisch, the ranger for the Ochoco's Snow Mountain District, said that does not mean that the preferred alternative will become the chosen plan In fact, he said, maybe none of the 11 alternatives will be chosen Public comment and response may lead to the formulation of an entirely new plan

The people of Harney County have a lot at stake in the forest's plan Written comments will be received until Dec 20 Send them to Forest Supervisor, Ochoco National Forest, P O Box 490, Prineville, Ore , 97754 All documents are available at the Hines office

Paulina to hear grazing plans

Ochoco National Forest officials will be in Paulina Wednesday, Nov 18 to discuss the U S Forest Service's Draft Forest Plan and Draft Environmental Impact Statement

The meeting, open to the public will be held in the Pau Mau Club with a discussion of the forest plan from 6 30 7 30 p m Grazing issues will be addressed afterward, said Joe Meade, Ochoco National Forest Public Information Officer

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: Central Oregonian
Where published: Prineville OR
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NEWSPAPER CLIPPING SLIP

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FS 1600-2 (11/56)
☆GPO 1984 O 524 560

Land plan review slated

PRINEVILLE — The last scheduled open house on the proposed land management plan for the Ochoco National Forest and Crooked River National Grassland will be held tonight in Paulina.

The open house begins at 6 30 p m in the Pau Mau Club A meeting to discuss grazing leases on the forest will follow at 7 30 p m

The U S Forest Service will be available to speak to other groups about the plan For information about scheduling a presentation, call Joe Meade at 447 6247

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

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Where published: Bend. OR
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FS 1600 2 (11/56)
☆GPO 1984 O 524 560

Pro-economy forest plan support asked

Central Oregon cities and counties have been asked to oppose any management plan for the Ochoco National Forest that would cut jobs income or government revenue derived from timber sales

The request isn't aimed specifically at the recently released U S Forest Service plan for managing Ochoco, according to Bill Hemingway, executive director of the Central Oregon Economic Development Council.

Rather, Hemingway said, the COEDC is asking for a "generic" resolution opposing any forest plan that would hurt the economy

The COEDC sent letters Friday to virtually every government body, chamber of commerce and intergovernmental agency in the tri county area asking them to pass such resolutions

Hemingway said there are "arguments on both sides" about the impact the U S Forest Service's plan for the Ochoco might have on Central Oregon's economy To get an opinion not skewed by lumber company or Forest Service bias, COEDC has hired Brain Long, a consultant from Seattle, to study the plan, Hemingway said

"We are deeply concerned with ensuring that our currently operating (lumber) mills have the continued supply of raw materials to maintain their activities and even grow some more," Hemingway said

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: United Oregonian
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Sent by: Inez Cuellar
Stationed at: Ochoco N.F

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FS 1600-2 (11/56)
☆GPO 1984 O 524 560

Mill manager prefers alternative B

By TERRI LOWRY

John Shelk, general manager of Ochoco Lumber Co , spoke to the members and guests of the Crook County Chamber of Commerce Legislative Committee Tuesday morning on behalf of the mill industry and it's stand on the possible implementation of the Ochoco Forest Plan

"The issue at hand is a local issue, and if it is put into effect, the forest service plan will have a direct effect on the community," Shelk said

He stressed the importance of community members getting as much information about the plan as possible and then making known their opinions by writing to the forest supervisor by Dec 20

The forest service's plan, which is concentrating on what what it refers to as Alternative E E Departure, is a preferred alternative by the forest service for managing the national forest for the next 10 years That alternative entails reducing the 850,000 acreas currently harvested for timber to 260,000 acres

Because of the reduced number of acreage from which to cut and select trees, the quality of timber will not be the same, Shelk said The yield of ponderosa pine will be reduced 40 percent

The new plan would also reduce the availability of firewood, which is perhaps one of the most important impacts on the community, Shelk said

Conservative estimates by the state show the personal income of county residents will drop by at least $2 5 million dollars, Shelk said It is also projected that a loss of 200 jobs will occur under the new plan because the Ochoco Forest service is reducing its planned timber target

According to Shelk, the mill industry has devised Alternative B-Plus, which "is the better alternative for the Ochoco Forest"

Jim McClam of Bend said he is assisting the local mill industry in an attempt to make the community aware of both the forest service's plan and the mill industry's alternative

"This is definitely a community issue, and you can bet I'll be knocking at doors to make people of the community aware of the issue," McClam said "Alternative B comes closest to maintaining the existing sale program and economic contribution from the Ochoco Forest," McClam stated

Under this plan, there will be less emphasis placed on clear cutting, and more emphasis given to the salvaging of dead and dying trees, he said The plan also will enhance and expand campground facilities and provide 32,000 acres of old growth forest while leaving about that much over the next ten years, he said

Furthermore, McClam stated, the Alternative B plan will maintain the current planned potential timber yield

USDA FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: The Bulletin
Where published: Bend OR
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FS 1600 2 (11/56)
☆GPO 1984 O 524 560

Forest Service accused of overcutting

By Stephanie Monson
Bulletin Staff Writer

The U S Forest Service is cutting timber like there s no tomorrow and allowing grazing at the public s expense on the Ochoco National Forest environmentalists charged Thursday

It s tree farming and ranching on the public land said Don Tryon southeast field coordinator for the Oregon Natural Resources Council

About 45 persons met in Bend to comment on the draft environmental impact statement and proposed land management plan for the Ochoco forest.

The Forest Service should leave more wildlife habitat and not reduce the size of the Lookout Mountain roadless area speakers also said

It is unwise to cut more trees now and fewer in 50 years as the plan calls for said Lawson LeGate of Bend vice chairman of the Oregon Chapter of the Sierra Club

In a chart he titled Cutting Timber Like There s No Tomorrow LeGate pointed out that the proposed plan calls for cutting above the sustained yield level for the next couple of decades and then drastically reducing logging

The sustained yield principle means that the timber harvest must be even each decade and the amount cut must not exceed the number of board feet that can be grown back annually

When the timber industry faces a reduced cut — the plan calls for reducing logging from 123 million board feet in the first decade to 89 million board feet in the fifth — it will cast covetous eyes at timber in roadless and wilderness areas, LeGate said.

Tryon and retired habitat biologist Harold Winegar of Prineville also charged that the grazing program on the Ochoco forest is unprofitable

Winegar said grazing last year brought in $65 000 in receipts but the program cost taxpayers $420 000 to run.

This is not an economical thing Winegar said

Tryon said the plan fails to consider the impact livestock grazing has on stream banks and the forest floor

If grazing was not allowed for five years Tryon maintained the watershed would be greatly improved and forest streams would produce more fish which would mean more fishermen visiting the forest and more money pumped into the local economy

Dianne Ravard of Prineville a former Forest Service employee said her number one concern is the Lookout Mountain roadless area.

The proposed plan would shrink the 16 580 acre roadless area to 2 950 acres encompassing the top of the mountain The rest would be allocated for general forest use meaning it could be logged

The area contains critical habitat for deer and elk and is a prime hunting destination Ravard said

Alice Elshoff of the Central Oregon Audubon Society expressed concern about the smaller animals that inhabit the forest

She said the area left for the pileated woodpecker — a species used by the Forest Service to gauge the health of the animals with which it shares habitat — should be enlarged with each pair of woodpeckers allocated 600 acres rather than the 300 acres proposed and the nesting grounds placed closer together

Shelling begins in battle over Ochoco forest future

By Stephanie Monson
Bulletin Staff Writer

PRINEVILLE — After about two months of quiet action is heating up in the battle over the Ochoco National Forest plan

The timber industry has taken a vitamin approach and come up with a supplement to a U S Forest Service alternative contained in the draft environmental impact statement The timber interests claim the agency s preferred alternative for managing the forest could destroy 200 jobs

Meanwhile a coalition of environmental groups will meet tonight at Central Oregon Community College to outline what they think should be done with the forest plan, said Lawson LeGate of Bend vice-chairman of the Oregon Chapter of the Sierra Club.

The meeting will begin at 7 in Room 140 of the Ochoco Building Representatives from organizations including the Sierra Club Oregon Natural Resources Council and Audobon Society will attend

The timber industry and the environmentalists are getting set to square off over the Forest Service s proposed plan for managing the 950 000 acre Ochoco forest and Crooked River National Grassland over the next 10 to 15 years.

In September the Forest Service released a draft environmental impact statement containing 11 alternatives for managing the forest Accompanying it was a proposed land management plan outlining how the agency would implement its preferred alternative

The public has until Dec 20 to comment on the documents and so far the comments have only been trickling in said Joe Meade Ochoco forest public affairs officer

But that trickle could become a torrent in the next month as environmentalists and timber industry officials release their opinions on the plan

The industry plan would save jobs by increasing and stabilizing the annual timber harvest provide adequate habitat for deer and elk and enhance campgrounds said John Morgan, logging manager at Ochoco Lumber Co. and a spokesman for the Ochoco Timber Purchasers Group a coalition of mill operators in Prineville Deschutes County and the Burns area

The timber industry s plan adds to Alternative B in the draft environmental impact statement and also incorporates some elements of the preferred alternative

We took the vitamin approach I guess and called it Alternative B Plus Morgan said

Morgan said the industry s plan would set the annual timber harvest level at 137 million board feet with 100 million board feet of that total composed of ponderosa pine

The Forest Service s preferred plan would set the annual level at 123 million board fee in the first decade That level would decline to about 89 million board feet per year after 50 years

Forest Service officials are calling the harvest schedule a departure because the allowable cut rises above the sustained yield level and falls below it before leveling off after 90 years

The principle of sustained yield is tied to the non-declining flow policy of the Forest Service

That policy says roughly speaking that logging must not outpace tree growth The amount of timber harvested must be even each decade and annual logging must not exceed the number of board feet that can be grown back annually

Meade said the range of alternatives in the draft environmental impact statement allows for sustained annual timber harvests ranging from 84 million to 144 million board feet

What a person needs to recognize is that there are trade-offs in that spectrum Meade said

For example if more timber is marked for harvest then plans to preserve stands of old growth and corridors of trees lining highways might suffer Meade said

The ideal is to find some balance in there Meade said

However Morgan said the Forest Service s plan to allow a greater harvest now than 50 years later is unpopular among timber industry officials

We would like a good steady predictable cut each year he said

Having a higher cut also will save 200 jobs threatened by the Forest Service s plan he claimed

Morgan maintained that the industry's alternative would provide adequate deer and elk habitat and improve the watershed through better streamside management

We are very multiple-use-oriented he said

The industry s plan would reduce the number of clear cuts — logging all but a few trees in a timber sale — by stepping up the forest s salvage program the practice of harvesting clumps of dying trees throughout the forest Morgan said

The idea is to cut few r trees over a greater portion of the forest, he explained.

Morgan said some timber industry employees are sending a form letter to the Forest Service voicing support for the alternative

Personally I d like to see more involvment than just a form letter he said

Meanwhile LeGate of the Sierra Club said the logging level proposed in the industry alternative is much too high if the forest is to provide for such things as recreation wildlife and hunting

It sounds to me as though the timber industry bases their figures as if the forest produces only one resource LeGate said That of course is illegal under federal law

He said the National Forest Management Act of 1976 directs the Forest Service to develop forest plans based on the concept of multiple use

The timber industry is not the only business that benefits from the forest LeGate added noting that people employed in recreation and hunting related businesses also depend on it

Get facts about the forest plan

To the Editor

Alternative B—Irresponsible and shortsighted

The proposed land and resource management plan of the Ochoco National Forest and Crooked River National Grassland contains eight (8) options plus three (3) departures from Plans B, E, and H In addition, Northwest Resources, a business entity hired by local woodproducts companies has proposed a "B Plus" plan for a grand total of twelve (12) plans to select from Information regarding the contents of these plans is contained in three volumes and eight maps that would require months of study to understand well We have until December 20, 1986 to make our opinions regarding these plans known to the Forest Supervisor and I urge all residents to do so The USFS will then make a decision that may well affect all of us for the next 300-400 years, so let's hope that they make a good one

So, where did Alternative B come from and why am I against it? The Resource Planning Act requires that a spectrum of plans be developed ranging from maximum commodity (timber and cattle) production to maximum amenity management of the forest considering all users including the animal and plant communities residing there Alternative B is the minimum management maximum commodity production alternative There would be no scenic corridor left along Highway 26 or anywhere else Riparian (stream bank) management in acres is the lowest of all the plans Roads will be constructed into roadless areas Indeed, there will be no roadless recreation outside wilderness areas There are no provisions for winter and summer range for deer and elk Snags left would support only 20 percent of the potential population of cavity nesting animals In addition to the above, the B-departure guarantees economic disaster for Crook County in 50 years due to increased current cut and the B Plus plan selectively logs old growth everywhere in the forest allowing low value Douglas and White Fir to predominate in the future The sustained yield in the Ochoco National Forest is 78 million board feet per year Cutting more than this will lead to a drop in production in the future The average annual cut from 1975 through 1984 was 110 1 million board feet Plan B proposes to increase the volume by 10 percent now At this rate, I have been told, the old growth Ponderosa Pine will be gone from the Ochocos in 18 years

In summary, Alternative B was never meant to be taken seriously It is a planning requirement, a "worst possible" case If B is selected, when the timber is gone from the Ochocos, those of us still alive and our children and children's children will be left holding a very empty bag Those who have profited at the expense of the forest and future generations will probably be long gone Alternative B and its departures and its B Plus alternative get an F in my book Don't let yourself be fooled by a small portion of the woodproducts industry who are only looking at the short term economic advantage of proposition B Those of us in the trenches have to be concerned about the future of this area and our livelihood for more than 20-50 years Get the facts and write the Forest Supervisor with your opinion

Harry H Rinehart M D,
Fellow AAFP
Prineville

NEWSPAPER CLIPPING SLIP

Name of paper: Central Oregonian
Where published: Prineville OR
Date of issue: 11-27-86
Sent by: Inez Cuellar
Stationed at: Ochoco N F

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NEWSPAPER CLIPPING SLIP

Name of paper: The Bulletin
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Sent by: Inez Cuellar
Stationed at: Ochoco N F

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Name of paper: The Bulletin
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Stationed at: Ochoco N F

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FS 1800-9 (1/68)

Mills' spokesman rips Ochoco plan

By David Braly
Bulletin Corresponent

PRINEVILLE — Prineville lumber mill operators oppose the U S Forest Service's favored plan for future management of the Ochoco National Forest a representative for the mills told the Prineville City Council Tuesday

Jim McClain, speaking for the Crook County timber industry and wood remanufacturing firms, told the council that the proposed management plan would adversely affect the firms, and through them the entire community

McClain said 85 percent of Prineville s jobs were dependent upon the timber industry and that 2 3 other jobs were dependent on each timber job, although the Forest Service has asserted that only one-half a job results from each timber job

If the Forest Service's "preferred alternative" for managing the Ochoco is enacted McClain said it would harm merchants, professional people and governments as well as the lumber and remanufacturing industries He noted that schools alone drew $1 1 million last year from taxes on timber firm properties

The timber industry jobs that would be lost, McClain said, would be better paying than the 63 recreation related jobs the Forest Service claims will result from its preferred alternative

McClain said 79 percent of the timbered part of the forest was now being managed for full timber yield, but under the preferred alternative the area would be cut to 49 percent

He challenged Forest Service claims that timber cutting was incompatible with other forest uses and that clear cutting yielded thicker regrowth than selective cutting

'This is not a wilderness issue," said McClain This is a multiple-use issue The wilderness issue has already been decided by Congress"

He urged the city as an entity and council members individually to write to the Forest Service before the Dec 20 deadline for public comment to voice their opinions on the issue

'The Forest Service really does want to hear from you McClain said

City Administrator Henry Hartley told the council that the Central Oregon Economic Development Council also was examining the 11 alternatives in the Forest Service management proposal and was preparing a draft resolution

Supervisor speaks on forest plan

By TERRI LOWRY

Ochoco Forest Supervisor Dave Rittersbacher said he has two concerns about the proposed Ochoco Forest plan.

"One is the lack of community understanding of the complex issue, and two is the realism that there is to manage the national forest," he said "The issues at hand are very emotional and very real issues, and we must address those issues in an open, tactful and forthright manner"

Those were the opening remarks of Rittersbacher during the Tuesday breakfast meeting of the Crook County Chamber of Commerce Legislative Committee as he briefly addressed members and guests

Rittersbacher went on to explain some of the issues in the plan

"Under the forest service plan the numer of acres planned for actual timber harvest would be 495,000," he said, continuing to detail the plan by outlining an editorial from the Times Herald of Burns, with which Rittersbacher said he agreed

The editorial stated the timber harvest ranges from 34 percent less than current levels under one alternative and up to 77 percent more under another alternative

Big game habitat will support increased populations under all proposed alternatives, ranging from 76 91 percent more than current levels, he said

Acreage specifically designated for old growth habitat will range from the minimum level of 17 percent to twice that amount, Rittersbacher said

Firewood taken from the forest is tied closely to timber harvest as most firewood is provided by logging residue, he said It may vary from high to low levels depending on the plan

Other issues addressed by the plan alternatives are social and economic effects, riparian management, the transportation system, scenic qualities, snag management and winter sports

Rittersbacher pointed out that "by law, the forest service must name a preferred alternative, but this does not mean the current Ochoco Forest Plan will become the chosen plan"

There are choices, he said "We are not locked into any plan at this point, This is just the beginning of a process of analyzing all groups (environmentalists, timber, etc), plans and concerns

Economic and social issues of the community are the primary concerns of the forest service and will be considered, Rittersbacher said Community input on any alternative will have an impact on the final outcome

"It isn't going to be easy," he said "Not everyone will be satisfied, but everything will be looked at for consideration"

USDA—FOREST SERVICE

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FS 1600-9 (11/80)
GPO 1984 D 524 560

Stand on forest plan stalled

By Mike Freeman
Bulletin Staff Writer

The Bend City Commission has sidestepped — at least temporarily — a controversial request to put itself on record against any changes in the Ochoco Nation Forest management plan that might hurt local industry

The commissioners postponed taking action on the request brought forward by the Central Oregon Economic Development Council until they read a summary of the U S Forest Service s plan for Ochoco

'I d rather give no opinion than give an uninformed one ' said Commissioner Ruth Burleigh

The Forest Service has come up with 11 different options for regulating roadless areas timber harvesting wildlife habitat and other matters in the Ochoco One of these plans is the preferred alternative recommended by the Forest Service

City commissioners received a letter from Bill Hemingway, executive director of COEDC, asking them to pass a resolution opposing any 'modifications to the Forest Service plan which would reduce timber related employment, income or local government revenues ' derived from timber sales

COEDC has hired an consultant to study the economic effects of the plan and the consultant's report should be finished sometime this month Hemingway said

Lawson LeGate of the Sierra Club testified Wednesday that the Forest Service's plan strays from the principle of 'sustained yield" timber harvesting

According to LeGate the Forest Service is recommending a 5 percent reduction in the allowable timber cut in Ochoco each year for the next five years The staggered reduction LeGate said, is designed to give the timber industry time to prepare for reduced harvests in the future

The Sierra Club and the timber industry disagree about how much timber should be cut in the Ochoco to insure that the forest can provide a steady flow of logs for several decades, LeGate said

"History is overcutting," LeGate said ' You manage for sustained yield You don t cut more than the forest can reproduce) now and then make up for it sometime in the future by making drastic (reductions in the havest) "

The commissioners plan to consider the resolution again before the end of the year

Forest Service officials said they hope to have a new plan for the Ochoco adopted by 1988 After that the timber industry or environmental groups can file lawsuits challenging the plan

In other business, the commissioners approved a proposal to ask the state for $155 000 to build sewers streets and water lines in the west end of town

But John Hossick city planning director said the city s chances of getting the grant are poor The last time the city applied for state funds for the neighborhood — bordered by NW 15th and 17th streets and Elgin and Galveston avenues — the application came in 12th out of a list of 30

The city competes with other cities and counties throughout the state for the funds

The city also will ask the state for $55 000 in lottery money so developer Lee Blake can improve Neff Road from NE 27th Street to Tucson Way Blake proposes to build a retirement center at the corner of 27th and Neff

Hossick said the chances of winning that grant also are poor

Have you bought any lottery tickets lately? he quipped

USDA—FOREST SERVICE

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Forum nears on Ochoco plan

PRINEVILLE — A public forum to discuss the proposed land management plan and draft environmental impact statement for the Ochoco National Forest will be held Wednesday in Prineville.

The one-hour forum begins at 6 p m in Our Saviours Lutheran Church, on the corner of Third Street and Harwood Avenue

Jim McClain a representative of the timber industry, will give a presentation on the plan Officials from the Forest Service state departments o Fish and Wildlife and Forestry also will be at the forum

Representatives of the Ochoco Elk Hunters Association and possibly the Sierra Club also will attend

Meanwhile, Dave Rittersbacher Ochoco forest supervisor will be on hand to answer questions about the documents until 7 p m Thursday and Friday at forest headquarters 230 Sixth St in Prineville

The public comment period on the plan ends Dec 20

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Ochoco officials dispute forest industry job claims

By Stephanie Monson
Bulletin Staff Writer

PRINEVILLE — The timber industry s prediction that a U S. Forest Service plan for the Ochoco National Forest threatens 200 jobs is one of several industry claims based on mysterious numbers, a U S Forest Service official said Monday

Earl Layser Ochoco forest planning staff officer was referring to claims in Alternative B-Plus, a timber industry plan to manage the Ochoco forest.

"Some of their figures, I don t know where they came from,' Layser said.

The industry alternative says, "A loss of over 200 jobs is expected because the Ochoco is reducing their planned timber (harvest) target from 137 (million) to 123 million board feet per year

Forest Service figures estimate that eight jobs are connected to each million board feet of timber If there was an annual decrease of 14 million board feet in the amount of timber cut, then 96 jobs directly related to the timber industry would be lost, according to its figures

Jim McClain a consultant representing the Ochoco Timber Purchasers Group claimed that more than 200 jobs would be lost under the Forest Service s proposed plan because each job in the timber industry supports another 2 3 jobs in other businesses

If those calculations are correct then about 791 more jobs should have been created in fiscal year 1986 Layser said. That s because a total of 158 million board feet of timber was sold last year compared with 115 million board feet in 1985

The increase in sales occurred when the Forest Service began reselling contracts for timber that the timber industry had returned under the federal buyout program which allowed some mills to return unprofitable contracts purchased in the early 1980s Layser explained

The timber industry s job calculation just doesn t track, Layser said, unless industry figures figure that most of the new jobs were created outside of Central Oregon.

McClain said the increase in timber sales didn t create more jobs because Prineville mills aren t running at 100 percent capacity and new jobs aren t created in the mills but rather in remanufacturing plants dependent on local lumber

However Layser said Crook County remanufacturing plants aren t using lumber from the Ochoco forest

Layser also said it is easy to blame the land management plan for a loss of jobs in the timber industry but studies have shown that modernization of mills is the primary culprit

That (automation) could be one of the key factors in (declining) job numbers Layser said.

Meanwhile, Layser said that the industry misused other information in a flier outlining its preferred alternative

For example, the timber industry plan said county revenue and wages would be lowered because of reduced harvest levels in the proposed Forest Service plan

We re not intending to take millions of dollars from county residents Layser said.

He said the amount of timber receipts returned to the county depends not only on the amount of timber sold, but also on the price it brings

Layser also questioned the timber industry s statement that only 263 000 acres on the forest would be available for intensive logging.

While that figure is correct Layser said the timber industry doesn t note that some logging would be allowed on about 232 000 more acres under the proposed plan.

The additional acreage has been set aside for such things as wildlife habitat, meaning that logging will be curtailed but not prohibited Layser explained

McClain claimed however that there would be a loss in the volume of timber cut under the Forest Service s plan

The timber industry proposal also asks that 100 million board feet of ponderosa pine be sold annually less than the average of 105 million board feet that has been sold each year for the past decade

Industry officials claim the 100 million board foot level would meet sustained harvest level goals The principal of sustained yield says that annual logging should not exceed the number of board feet that may be grown back annually

McClain said the industry also realized that part of the forest must be set aside for other uses.

We re perfectly willing to share the forest with everyone out there, he said

McClain said the timber industry proposed to reach that volume by increasing the practice of selectively logging trees throughout the forest and decreasing clear cutting

Layser said the idea had some merit but noted there was some question" of whether that much timber could be selectively logged each year

We really are open to that method of logging he said

Layser added that while an average of 105 million board feet of ponderosa pine had been sold annually only about 71 million board feet had actually been cut each year

The largest annual yield proposed in the Forest Service alternatives in the plan is 92 million board feet Layser said

The Forest Service s preferred alternative would allow the sale of 87 million board feet of ponderosa pine over the next 10 years The total volume of timber that would be sold is 123 million board feet.

Layser added that each Forest Service alternative called for a reduction of the ponderosa pine harvest over time because there was only so much pine out there

Nowadays Layser added it s a new ball game for planning the future of the forest, because the For st Service must take things such as wildlife and recreation as well as timber yields into account

Bend Bulletin
12/3/86

E Departure is mismanagement

To the Editor

The Proposed Forest Service Plan "E Departure" A Departure from Sanity

As I mentioned last week, there is a smorgasboard of 12 possible Ochoco National Forest Land Management plans (LMP) for us to comment on by December 20 Theoretically, the Forest Service will then select one plan and use it to continue mismanaging the forest and grasslands for the next ten years Or, they will modify some of the plans and come up with a "consensus" plan and do the same thing

More on that later Right now, let's evaluate the Forest Service preferred plan, E-Departure

Timber harvest would increase by 1 percent in the first decade then slowly drop to 29 percent below the current sale level Remember the sustained yield of the Ochoco National Forest is 78 million board feet per year The current sale level is 132 million board feet per year, or almost 1 7 times the sustained yield — reducing it 29 percent would still be 1 2 times the sustained yield In essence, we're eating our seed potatoes Bon appetit

Livestock grazing would increase by 11 percent Now this is really preposterous to anyone who understands the need for riparian recovery and the fact that cattle grazing is by far and away the overwhelming cause of riparian devastation on our forest

The Riparian (streambank) management goal is listed on page 19 of the environmental impact statement as "Excellent condition in all areas with anadromous fish (salmon-steelhead) or high valued trout fisheries" There are 800 miles of stream sides on the forest and grasslands Eighty-five miles, or about 10 percent, currently have a salmon-steelhead population Twenty miles support brook trout, and 195 support no trout now, but they once did (There were steelhead in McKay Creek as late as 1959 prior to construction of Pelton Dam) However there are almost no funds to support this goal by conventional means, i e fencing streams at $2,500 per mile, as well as placing rip-rap, dams, dikes, jettys at several thousand more dollars per mile So, this is a hollow goal Furthermore, the 1979 LMP called for "excellent" management on far more miles of streams than E-Departure, and a reduction in animal use months (AUM's) if the goals were not met! So, historically, the Forest Service has not implemented measures pertaining to Riparian habitat recovery in its last plan — the credibility gap begins to reveal itself

Speaking of history, the U S F S was initiated in 1877 by the Organic Act which established two purposes 1 Watershed protection and 2 Timber management. The U S Supreme Court in 1978 reaffirmed that there were only two purposes for the reserves, favorable conditions of water flows and to furnish a continuous supply of timber Is the 1986 LMP beginning to sound like parts of it may be illegal?

Snowmobilers take note — the top of Lookout Mt. would be closed to you! Only us nincompoops, the x-country skiers, would be allowed up there There would be 60 more miles of roads for you to ride on the lower slopes of Lookout — logging access roads, that is, into a current roadless area

Picking at parts of the plan, however, serves little purpose The Forest Service, like all large governmental regulatory bureaucracies, will continue to aid and abet those special interest groups (timber and cattle) that it was supposed to regulate, because that is the side their bread is buttered on

Like Willy Sutton, who robbed banks, because "that's where the money's at", the Forest Service is dependent upon their large timber receipts and miniscule grazing receipts to measure their value and justify their existence Historically they haven't enforced the law of the land and it will take major confrontation for them to change, why else would they promulgate documents containing provisions which are predictably illegal and others which are nonfunded? Why do they spend hundreds of thousands cleaning up after cattle and allow our riparian areas to be destroyed when simply keeping the cattle off the forest would allow nearly complete recovery in 10 years? And cattlemen ne not suffer — we could afford pay them many times their current profits per cow not to gra their cattle on the forest with t savings realized from n managing the range and for for grazing

As useless as it may seem urge you to write to the Fore Supervisor and express yo views Only an overwhelmi volume of mail will allow reas to have an equal voice along si the well funded special co modity interest groups — timb and cattle

My view is that not one of t 12 plans has any substanti merit, mainly because none them address the riparian pr blem in any depth or detail

I would like to see the e vironmental and economic ir pact statement on the forest grasslands based on a plan ca ing for the elimination of catt grazing on the Ochocos M sources tell me that the increa ed run-off would nearly fill bo Prineville and Ochoco Rese voirs (194 000 acre feet), wi late season flows alone supp continuous winter flows, ar reduce ice damage as well allow all the streams to heal to "excellent' level (not just t proposed 10%) in three to years The increased filtratic would not only keep those rese voirs from silting in, but allo much more logging activity ar still meet State water quali requirements Of course, t grazing permittees would ne to be compensated as a portic of their livelihood is depende on the forest roughage But t cost of this would be a fe percentage points of the costs current management and loss revenue from fisheries ar recreation The data available, mainly from loc studies, to produce such a stat ment, and to compute a fa compensation to the cattlemen know those are sacred cows u there they would have to be c they wouldn t have survived s long!

The forest and grassland belong to all of us A few of u would destroy it for now and th future The streams are alread destroyed What will it be citizens short term gains, o long term losses?

Sincerely,
Harry H Rinehart M D

USDA—FOREST SERVICE

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FS 1600-2 (11/50)

Forest plan input to end

To the Editor

The Ochoco National Forest Land and Resource Plan proposal has been available to the public for review for quite some time now December 20, 1986 is the deadline for any written comments or proposals to this plan I would like to urge all forest user groups and individuals to please take time to review the plan and respond Your thoughts are needed

Dave Mayfield
President
Ochoco Elk Hunter's

BLM land swap opens elk range

To the Editor

There is a proposed land exchange in Wheeler County that has the possibilities of providing 60,000 acres of public hunting, fishing, and recreation This proposed exchange would not only provide prime bird and big game range but also 80 miles of John Day River access for fishermen I would like to urge all interested persons to contact the Prineville B L M office for information or to attend the public open house meeting at the Prineville Fire Hall on Dec 11, 1986 at 7 p m

Dave Mayfield
President
Ochoco Elk Hunter's
(Chapter O H A)

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FS 1600-2 (11/50)

☆GPO 1954 O 524 560

Applauds letter on forest plan

To the Editor

It was indeed refreshing to read Dr Rinehart's letter in the Nov 27 issue of the Central Oregonian It's hearting to know that there are some within the community willing to let their opinions be known on the issue of forest planning, even when those opinions may go against the commodity interests within the community. I applaud Dr Rinehart for being so forthright and honest.

Jim Myron
Canby
P S Also a part time resident Riverside Ranch

Photo By JIM DONOVAN

District Ranger Fred Harnisch, center, talks with a contractor discing a clearcut on the forest. Discing helps alleviate the soil compaction caused by heavy logging equipment, and can speed up reforestation. It is not a widely used practice on the Ochoco National Forest

Burns Times-Herald 12/10/86

Nordic club meets Tuesday

The Central Oregon Nordic Club will meet at 7 p m Tuesday at First Methodist Church on Bond St with David Foster of Tri Mountain Sports giving a presentation on the new line of cross country ski equipment

Also, representatives of the Ochoco Nordic Club will discuss the new Ochoco National Forest plan as it pertains to winter recreationalists

On Saturday, Bob Woodward will give a ski skating clinic. For information call Woodward at 389 9816

And next Sunday, Tracy Reynolds of Blue Lake Resort will lead a tour of his trail system Interested skiers should meet at 10 a m in the Mirror Pond parking lot The fee is $3.20

Bend Bulletin
12/7/86

Burns Times Herald 12/10/86

'Preferred alternative' a departure from sustained yield

Forest plan would reduce harvest

By JIM DONOVAN
The Times Herald

Vast chasms of disagreement divide the forest industry and environmental groups concerning management of our National Forests But there may be some areas of concordance as well

Timber interests and conservationists were bound to clash over the proposed plan for the Ochoco National Forest and they have But they may find common ground in a challenge to the Forest Service's most basic assumptions

A draft environmental impact statement issued months ago by the Forest Service outlines 11 different options for managing the Ochoco They vary widely regarding their treatment of timber harvest, roadless areas big game production and riparian areas

But they are all driven by a common factor an even aged management program

Even aged management means timber stands will be harvested through clear cutting and reforestation will replace the trees with new ones all about the same age and size

"We don't think it's necessary to cut everything that's merchantable in a stand Don Witte log yard supervisor at Snow Mountain Pine said "Our position is if you can continue to manage as you have for the past 75 years which is basically selective cutting why change?"

Lawson LeGate of Bend the chairman of the Sierra Club's Oregon chapter said "We agree that there is probably an over reliance on clearcuts and even-aged management."

But LeGate charged that the timber industry's proposals are based on legally and naturally unrealistic assumptions

The timber industry has asked for a stable supply of ponderosa pine in the amount of 100 million board feet annually and an overall cut of 137 million board feet from the Ochoco

The Forest Service under its preferred alternative would slightly decrease the present cut of 126 million board feet to 123 million for 10 years and a decreasing amount over 50 years to satisfy requirements of a sustained yield

LeGate objects to the departure from a sustained yield harvest level for the first few decades "If you're not managing for sustained yield" he said "you're engaging in unwise management."

The Forest Service's proposed plan addresses many other aspects of forest management, and District Ranger Fred Harnisch encourages the public to submit comments

"The big plan scares people he said (The documents are hundreds of pages thick) "But if people just send in comments on specific areas they're interested in that's great.

"It's not a vote count But if people have concerns we want to hear them he said

The comment period ends Dec 20 Send comments to Forest Supervisor Ochoco National Forest Box 490 Prineville Ore 97754

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Ingrid Cullen
Stationed at
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FS 1600-2 (11/50)
☆GPO 1984 D 524 568

Wants Lookout road open again

To the Editor

Last night I spent about an hour and a half talking to Dave Rittersbacher, "Head man for our Forest Service" And I do think it is "ours"

Dave assured me that there is no plan yet Only their ideas and they need us to tell them what we want Boy! am I glad what they suggest is not for real — any of it

I have had hundreds of people talk to me about the forest plan as I have been involved in this from the start

I know nothing about logging except there are some very rich, selfish timber owners around here Also, out of-work loggers are mean and hungry ones are worse

I do know of a lot of trees in what is now closed areas that could be logged to the better of everyone

As for grazing, cows are stupid, stink leave a mess and taste good when cooked right They are owned by rich selfish land owners too From the grass left where there was no grazing, there could have been quite a bit of it

Since these rich selfish land owners have taken away the recreation from hundreds of thousands of acres from ordinary people then we have to count on public land

Now recreation I know about I like to play

I worked with the Forest Service and agreed on the three wilderness areas we have I worked with the original skiers on laying out the ski area by Bandit Springs Then I thought the rest of the public land should be for the rest of the public, not excluding but including those who use the four set aside areas

I am for all types of recreation on all of the Ochoco National Forest except the four set aside areas, "three wilderness and Bandit Springs"

I hike, fish hunt, four wheel, horseback motorcycle snowmobile, and just camp out a lot I do not x-country ski because I don t know how and am probably to clumsy and old to learn But more power to those who do

The moral of this story is ' Let s not be like those mentioned before Let's share what we have "

For 40 years that I know of there was a primitive road going across a few miles of the most beautiful part of the Ochoco National Forest It was passable to all types of vehicles as long as you used a little caution

Thousands of people traveled this road because of its scenic beauty Nowhere in our forest were you as likely to see big game You could drink from several springs and see all the rest of the Ochoco's from there

In 1979 this road was ripped out and the mountain was scored worse than it had ever been before It was taken away from 95 percent of those who used it The people who used this road were not told this was going to happen After it did happen, about 2,000 people said they wanted the road put back like it was That is 2 000 local people

Those who want to hike, backpack or cross country ski up there can always do so Let s not keep it from the rest of us For everyone who goes up there now a hundred more would like to and would if they could Dr Rinehart can give you a long list of those who can t hike or x-country ski there, and a list of reasons why They all deserve to enjoy this beautiful scenic drive

So, if you feel as I do about this, please help yourself as I and others have tried to help you

The road we want back goes across the top of Lookout Mtn north and south road 4205, connecting road 42 to 4220

If you want this but have different reasons or ideas or plans, say it in a letter to the Ochoco National Forest P O Box 490, Prineville, Ore 97754

Respond before 12 20-86

Thank you

Wanting to share the ONF

Bob Fox

Prineville

P S If I have stepped on some toes think nothing of it, you have stomped on mine

Consultant says wrong plan will jeopardize economy

By Tami Brucker

The forest service s preferred alternative to the management of the Ochoco National Forest would if implemented reduce area employment opportunities according to Jim McClain spokesman for the timber industry

McClain executive director of Northwest Resources in Bend says 85 percent of the jobs from retail to logging in Crook County are affected by what the forest service does And if the forest service s E Departure Plan is put into effect about 200 jobs will fold he said

The employment economics of E Departure are linked with the amount of timber that can be cut under that plan McClain said

If you don t have enough timber to cut then what happens to all the jobs dependent upon the timber industry? he asks

To explain the link between jobs allowable cut and land allocations McClain recited statistics from the Draft Environmental Impact Statement

There are 850 000 acres of forest of which 533 000 are forested Presently 423 000 acres are managed for full timber yield

Under the E Departure Plan the 423 000 harvestable acres

JIM McCLAIN

would be reduced to 262 500 acres and this reduction in allocated land would greatly affect the amount of allowable cut McClain said

Last year the timber industry bought 148 million board feet from the forest service and now the timber operators are asking for 137 million board feet which would be the sustained yield level of the land allocation requested he continued But under E Departure only an average of 87 7 million board feet would be available annually to the timber industry during the next 10 decades he said

"There is no way you can grow 137 million board feet on 263 000 acres so you ve got to keep your land allocations on the forest up he said

Do not be fooled by the chart on page 74 of the Draft Environmental Impact Statement which shows 495 000 acres would be available for harvest under E Departure he cautioned The forest service wants to increase the current partial yield of 88 500 acres to 232 000 acres

The effect is going to be a net loss in available volume of harvestable timber because (the forest service) took 143 500 acres from full timber yield and put it in partial timber yield Mc Clain said

The forest service says it will use the 143 500 acres taken from full timber yield acreage and use it for scenic natural and wildlife areas McClain said

And any of those uses by itself is a very laudable goal but when you total the whole package up and look at the accumulative effect of it that s a price this community can t afford to pay he said referring to the alleged economical impact

Another flaw in the forest service s alternative plans is that no matter what alternative is chosen multi age selective cutting would be eliminated and intensive forest management would be continued McClain said Intensive forest management, also known as even age management, is often perceived as clear-cutting in that it often entails logging only those trees larger than nine inches in diameter which leaves large patchy areas he said

And he continued even age management makes logging incompatible with other uses of the forest

Timber operators want to go back to multi age selective cut he said Now that s the way this forest has been managed for the last 50 years We ve got a beautiful forest out there and logging can exist side-by-side with other uses of the forest

McClain said the best alternative for the community and timber industry is the B Plus Alternative Plan Under that plan there would be enough timber to meed demands and maintain jobs he said

If 85 percent of the jobs in Crook County are dependent upon the forest industry and that industry is severely impacted because of the drastic decrease in allowable cut this community not just the sawmills is going to suffer for it

Basically our plan is an expression of what we are concerned about he continued We maintain there will be about 200 jobs lost under the E Departure Plan The forest service said there would be a net gain of 63 jobs

Brian Long who was hired by the Central Oregon Economic Development Commission to evaluate forest plans says 289 jobs in Crook and Harney Counties will be lost McClain said

Now if an independent economist looks at the issue and says basically the same thing as us then whose credibility should be questioned?

McClain said one of the reasons the forest service has come up with such a plan as E Departure is that it is reacting to input from environmental groups The forest service he said perceives the frequent and plentiful input from environmental groups as public input whereas the community and timber industry has done a terrible job of expressing their opinions he said

It s time for the environmental groups to stop looking at the timber industry as the enemy and it s time for the timber industry to stop looking at environmental groups as left wing radicals McClain said

There s a lot of common ground and we can no longer afford to fight over it

USDA—FOREST SERVICE

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FS 1600 2 (11/59)

Plan would reduce jobs —

Study finds 'E-Departure' flaws

The U S Forest Service estimate of economic impact of its preferred alternative for the management of the Ochoco National Forest (ONF) is flawed according to a report released today by a Seattle economist

Brian Long and economist and consultant from Seattle was commissioned by the Central Oregon Economic Development Council to study the Forest Service s preferred E Departure forest management plan

Long stressed that ONF employees made a sincere effort to use the best information available at the time and did an excellent job of preparing their study He explained that the ONF economic impact evaluation was based on a model using figures based on 1977 industry relationships Since that time figures from 1982 reveal that forest industry employment has substantially recovered in the Central Oregon area and that the economic impact will be greater than would be indicated by use of the older model

In addition using the old model Forest Service planners are estimating an increase in recreation related jobs when in fact the new figures show a substantial decline in Crook County in recreation related jobs

Long s study predicts that under the E Departure alternative lumber harvest in the Ochocos would decline by 39 percent over a period of 50 years That equates to an annual job loss of 317 jobs and $6 5 million in annual income (in 1981 dollars) In addition he predicts a corresponding loss of Federal payments to counties due to the decreased timber harvest

The most important reason for the Forest Service to update its model for the study before making a final decision Long stressed is to correct an assumption based on the older figures which showed an anticipated increase in recreation related jobs to offset the loss in timber related jobs and to show the economic ration between the two different forms of employment

Comparing average wages for 1980 for the lumber and wood products industry with the recreation oriented industries gives a ratio of 2 4 ($22 706 and $9 296 respectively) for Crook Grant Harney and Wheeler counties Thus he says each job lost in the lumber and wood products industry must be replaced by 2 4 recreation oriented jobs to offset the loss of income

Instead of there being increasing numbers of recreation oriented employment in Crook County Long s figures reveal that the actual number of recreation related jobs has

(See ECONOMIST page 2)

(Continued from page 1)

declined from 967 to 763 for Crook Grant Harney and Wheeler Counties between 1978 and 1985 The only significant increase indicated in tourist related employment was in Deschutes County according to Long s study

The reduction in timber harvest on federal lands a 16 percent reduction in the first decade from current levels according to Long will come at a time when there has been increasing dependence on federally owned timber and a decline in harvests on private lands

This loss in anticipated timber harvest may generate a quicker decline in employment opportunities in Crook County than estimated by the Forest Service if mills don t modernize to remain competitive Long said

The economic impact of the E Departure alternative concerns Central Oregon Economic Development Council since it would hamper its ability to attract new lumber remanufacturing jobs to Central Oregon

Long s study was commissioned by COEDC and funded by grants from Prineville Economic Promotions and Pacific Power and Light Company Other contributions are also expected from local business people

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Opposition forms to forest plan

By David Braly
Bulletin Correspondent

PRINEVILLE — Opposition is crystallizing in Crook County to a proposed Ochoco National Forest management plan that would reduce the timber cut by 28 percent

Judge Dick Hoppes said Wednesday that the Crook County Court would almost certainly propose modifications to the Forest Service plan

Hoppes statement followed a presentation on the plan by Seattle economist consultant Brian Long to a joint gathering of the county court and the Prineville City Council

Long was hired by the Central Oregon Economic Development Council which is asking local governing bodies throughout Central Oregon to oppose any forest plan that might lead to job losses or hurt the local economy

State Sen Gene Timms and other interested people also attended Wednesday s session

COEDC chief Bill Hemingway said Long s complete report would be available in several days The Forest Service s deadline for public comment on the plan is Dec 20

Long said that despite dire predictions in the early 80s that the timber industry would never completely recover from the recession Central Oregon mills are now outproducing their peak performances of the pre-recession period

However Long said that employment had failed to recover with only 2 550 people employed in the forest industries in Jefferson Grant Crook Harney and Wheeler counties now compared to 3 300 in 1976 The Forest Service s preferred plan for the Ochoco would result in even greater job losses according to Long

Long said the Forest Service had projected the loss of 20 to 30 jobs in Crook and Harney counties with 94 recreation jobs gained But his own calculations showed that 289 jobs would be lost ($5 8 million in income) in Crook and Harney, 28 jobs in Deschutes ($700 000 in lost income), and only 89 jobs picked up in recreation most of them in Deschutes County Long estimated that one non lumber job would be lost as an indirect result of each lumber industry job lost

Long said that because the average lumber industry employee earns $22 706 a year and the average recreation employee $9 296 a year, it would take 2 4 recreation jobs to replace just one lumber job

Forest Service officials have challenged the timber industry s forecasts of job losses and environmental groups argue that a long term slump in mill employment is mainly the result of automation not decreased timber cutting

In his report, Long warned that reduction of the allowable timber cut would "make it difficult, if not impossible, to attract new remanufacturing plants or for firms to modernize existing plants Because of this it may promote the shipment of logs west of the Cascades These developments would have the effect of setting Central Oregon s economy back to an extractive stage'

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Charges forest plan creates defacto wilderness areas

By James O Smith

Local timber operators have announced firm opposition to the Forest Service choice of a long range plan for the Ochoco Na tional Forest John Shelk general manager of Ochoco Lumber Company in Prineville, says the "E-Departure Plan' favored by the local supervisor s office creates defacto wilderness areas, which reduces the land base of harvestable timber, thereby dictating a reduction in the allowable cut

In round figures, Shelk says that the land base set asides in the E Departure will reduce the area in which timber harvests will be allowed from 425 000 acres to 260 000 acres The designated roadless areas will become defacto wilderness areas because the only thing allowed there will be snowmobiles ' But the snowmobilers won t be able to get there because the roads to these closed areas will not be plowed, ' he predicted 'There will be no logging no grazing, no roads '

These areas are being held out for "dispersed recreation Shelk explains ' Recreation and land management for protection of old growth sensitive species of animals and/or rehabilitation are the primary factors behind Forest Service withdrawals of land from grazing and logging " The four primary reasons, ac cording to Shelk, are the crea tion of the roadless areas which he calls defacto wilderness the old growth retention areas big game management areas and riparian (stream bank) management areas The last three protect various animals including old growth sensitive species such as the pileated woodpecker and provide ther mal cover in winter range areas for big game

"I don t disagree with their goals for riparian management ' Shelk said We shouldn't be logging stream banks and dragging logs down the creek bottom That s (logg ing practices) out of the 1930 s He points out, however, that eastern Oregon is different from western Oregon "We don t have the steep canyons they have in western Oregon We re asking the Forest Service Are you going to allow any logging at all or are you going to make another defacto wilderness for 300 feet on each side of every class one creek?' '

Ochoco Lumber Company has already conducted some riparian reclamation and research on its own private property We took cattle off of the forest for a year It didn't make much difference We found that the wild horses do three times the damage to stream banks, that they use more forage, and that removing the cattle provid ed enough extra forage to im prove foal survival," Shelk said

I don't think people have any idea how many wild horses there are running loose up there '

In determining the use of the forest Shelk says that the Forest Service is moving from applying economic values to applying amenity values But he points out that when Senator Mark Hat field signed off on the wilderness

JOHN SHELK

bill that created wilderness areas in Crook County he specifically instructed that the remaining so-called Rare II roadless areas be put back into the land base

When the Rare II wilderness study was completed, timber operators thought that the roadless area issue had been set tled Senator Hatfield had signed off on the bill with the understan ding that the remainder of the areas under consideration be returned to the multiple use land base ' The Forest Service delivered the second half of the one two punch when they said We don t think so Shelk says

He notes that the final agree ment on the wilderness areas was " three Regional Foresters ago It was before Jim Torrance who is the best we ve had in the past 10 years"

Even though opposed to the additional roadless areas Shelk at least, is willing to com promise Leave Lookout Moun tain and Silver Creek as roadless areas, but not Rock Creek and Cottonwood Canyon They are too large and there is too much timber in there, ' he says

Although Shelk admits that the Forest Service is telling him that the withdrawal areas will not necessarily be closed to all logg ing he says that the plan con tains no commitment in writing and that he questions the direc tion of the the Forest Service

Their management goals are inconsistent he says Twenty years ago we had to cut all of the snags on a sale Now the Forest Service is girdling green trees to make wildlife snags

An unfortunate aspect of the system according to Shelk is that it is causing divisiveness among forest users who can really operate better through cooperation The snowmobilers have the entire forest open ex cept for Bandit Spring (designated cross country sk area) and the wilderness areas However, it's the loggers wh keep open the roads that the use during the winter Logger plow the parking areas fo snowmobilers at Lookout Moun tain The Forest Service doesn have the budget and they aren going to plow forest roads fo recreational use '

As far as big game manage ment is concerned, there ar factors other than logging tha determine the population of deer and elk, Shelk says Those fac tors, like the weather, are out o control—or—those factors, like the number of hunting tags sol by the state fish and wildlife department and/or the amoun of winter grazing available or Keystone and Bonnie View ran ches, are in the control of those other than either loggers or the Forest Service

"The Forest Service is saying Vote for us on the E Departure and trust us '," Shelk laughs "But, if they restrict the land base by 40 percent, that deter mines the allowable cut It's a simple mathematical formula That's correct But, why restrict the land base? '

High on the list of better ideas that Shelk would suggest for Forest Service consideration is better salvage sales of dead and dying or high risk trees While remembering an excellent salvage sale program conducted by the Forest Service in the mid 1970 s, he allows that the present salvage management program ' stinks '

Refering to roamer" salvage sales the Forest Service held in the mid 1970 s Shelk called those a win win situation for everyone "The Forest Service got top dollar for its dead and dy ing trees and the timber com pany got a valuable product. What tree dies and falls over? A large old tree A high value tree to the timber company '

He pointed to one salvage sale in which Ochoco Lumber Com pany got five to seven times the advertised volume over the two-year life of the sale taking only

"Leave Lookout Mountain and Silver Creek as roadless areas "

dead dying or marked trees

If we could harvest 60 per cent of the salvage in the Ochocos it would be a great value he commented

He would also like to see better timber sale layout realistic road systems without having to build super highways into a timber sale realistic logging system requirements that do not increase the cost of logging and reduce the revenue from those sales that is returned to the county and school district

We should also be doing more selective cutting to provide for a diversity in the timber stand rather than being required to cut everything down to an eight inch tree That s a mass production form of administering a timber sale It takes less work for the Forest Service It also removes a lot of good growing stock from the forest he complains

Shelk stresses that he is arguing against any tir management program the

be substantiated If after the U S. Forest Service exercises good management of the ex isting land base the Forest Ser vice says it has to reduce the allowable cut – if it provides data to support that – I d be the first to say reduce the allowable cut. But let s see some good management first.

In Shelk s view the Ochoco National Forest now provides a

' eastern Oregon is different from western Oregon"

wide range of activities for citizens He classifies it as a na tional treasure that provides

1 Wilderness set asides for the people in Florida and Maine

2 The remainder in the multiple use concept for recreation and timber which he says provides for the livelihood of this com munity

To take away a part of that without well founded well reasoned background informa tion for doing that is to me not reasonable not responsible

As a part of the logging economy in Prineville Ochoco Lumber company employs 120 people at the mill and another 50 in contract jobs That doesn t count the people employed through such contract work as roadbuilding erosion seeding slash burning and fence building It also doesn t count the company s contribution to the local economy by delivering a large amount of its product to local remanufacturing plants which provide more timber related employment

Shelk and other timber operators would like to see the Forest Service drop its prefer red E Departure plan and em brace instead what they call the B Plus alternative It would essentially leave the land base at its present 420 000 acre level even though it would still leave the Lookout Mountain area roadless aid and enhance deer and elk populations with seasonal road closures and more habitat improvement projects provide for 32 000 acres of old growth forest maintain the cur rent plan s potential timber yield maintain the core of the Silver Creek roadless area and stress the highest amount of watershed improvement pro jects

This he said would not have the detrimental effect of the E Departure plan which would create some dramatic reduc tions in county and school district receipts from timber sales nor would it have the effect of changing high value Ponderosa Pine to low value Ponderosa Pine or as dramatically change the makeup of the timber cut to associated species such a Douglas Fir White Fir o Tamarack at $10 to $25 per thou sand board feet instead of $10 per thousand board feet fo Ponderosa Pine

The bottom line of course re mains one of economics Without the land base in effect prior to the designation of wilderness areas in the Ochocos and without the current land base in effect for timber harvesting Shelk points out This com munity would be a different place

The deadline for receiving public comment on the Ochoco National Forest Plan is Dec 20 Shelk suggests that this is an issue of tremendous importance to the community not just timber companies and that he would encourage all citizens of the community to respond in writing to the Ochoco National Forest Supervisor before Dec 20

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State Sierra Club head hits ponderosa report

By David Braly
Bulletin Correspondent

PRINEVILLE — The state chairman of the Sierra Club described as shocking a recent report that there is nearly 40 percent less ponderosa pine on the Deschutes National Forest than the U S Forest Service originally believed

Lawson LeGate chairman of the 6 300 member Oregon Chapter of the environmentalist group com mented on the recent Forest Serv ice findings Monday

LeGate also criticized a recent timber industry study that predicts a large loss of jobs if the Forest Service s preferred alternative for the new Ochoco National Forest Management Plan is adopted

In a prepared statement LeGate called for reductions in the amount of ponderosa pine logged in the Deschutes National Forest an nually

These revelations abou sharply reduced volumes of ponde rosa pine probably s goal the death knell for timber industry efforts to greatly increase logging levels on both the Deschutes and Ochoco national forests said LeGate

He said that the inventories confirmed environmentalists asse tions that national forest lands have been subjected to overcut ing for years

If this overcutting continues LeGate said the diminishing supply of mature trees would have a negative impact on employment in the timber industry itself

You can spend thousands of dollars on all the number crunchers you want to tell you what you want to hear but it still won t help the forest grow trees any faster LeGate said referring to the timber industry s study supporting what he called an inflated level of timber-cutting on the Ochoco

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james o. smith

Major changes may n ɔt be needed to fix forest

In the opinion of John Shelk general manager of Ochoco Lumber Company the Ochoco National Forest is a national treasure In the local vernacular it s a bonanza It puts meat and potatoes on the table for a big group of people in Prineville

It is the primary source of income for millworkers log gers truck drivers and others in associated in dustries In addition it is the primary source of income for a substantial number of management people employed by the Ochoco Na tional Forest Supervisor's Office

Their wages spent locally spin off to provide a source of revenue for everyone from shoe salesmen to meter readers

The Ochoco basin is the source of irrigation water that fills both Ochoco and Prineville reservoirs pro viding water to most of the agricultural enterprises in the valley Ranchers graze their livestock on the forest during the summer

The thousands of acres of National Forest also provide recreational opportunities for local residents and at tract large numbers of tourists who come here to dig rocks catch fish hunt camp or just generally take themselves out among the trees for whatever personal reasons they have for it

Timber harvesting agriculture and tourism are basic industries that bring money from outside into the local economy This revitalizes an economy that would quickly stagnate if we were just passing dollars around here among ourselves

We could pretty safely say that there is hardly anyone in Prineville who isn t touched by the forest in one way or another

We ought to be pretty unanimous then in our ef forts toward establishing sound goals for the forest's management We ought to be pretty careful to avoid choos ing up sides locally in an us against them fight over what to do with the national forest We ought to be very careful to think for ourselves

I ll be the first to tell you that after looking at all of the alternatives offered by the Forest Service I don t know which is best I couldn t even tell you if it was reasonable for the Forest Service to offer that many there But that s OK I like most of those guys Most of them are neighbors

Secondly I can tell you that the majority of the people who drive into the forest choose previously logged areas to recreate They don t park their vehicles very far from a logging road and they choose the open spaces that are left after logging and thinning operations

I ve only been cross coun try skiing one time and on that occasion we were on a skid road from start to finish I can t imagine what it would have been like to abandon the skid road and try to get through the pole patches on a pair of six foot skis Most of the people I know who cross country ski follow skid roads and logging trails through previously logged areas

The same is largely true of snowmobilers They gravitate toward the open spaces and skid roads were it is possible to get up a little speed without debarking a tree

I ve camped in the forest and ridden horseback in the wilderness areas I can tell you that you don t haul a horse trailer cross country to get to the jumping off place I also didn t pay a fee to the forester who keeps the wilderness trails open and marked His salary probably came around and about from some logging operation somewhere sometime in the recent past

I ve hunted in the national forest and, if anything, the loggers have been compelled to build too many roads If we could close a few more roads we would eliminate half of the road hunting ac tivity and would probably not need a permit system for tags But, those roads were built over the objections of the loggers and to satisfy past multiple use goals established on a national basis to get people other than loggers in to enjoy the benefits of the government woods

A lot of w ldlife habitat in the Ochoco, owes its survival many times over to the fire fighters who were on the scene at the drop of a bolt of lightning because logging roads were there for transportation

I ve seen all weather roads built for a logging operation where the timber company would have done as well with a skid road that could have been returned to its natural and only one of those a modification in Alternative B (proposed as the B Plus Plan by timber operators) calls for intensive reforestation.

One of those plans is a continuation of the current management plan, Alternative A This is its timber management plan Timber harvest is scheduled on a nondeclining yield basis. Current direction is to intensively manage timbered stands to the degree consistent with other resource requirements identified in the Unit Plans This involves planting harvested units with genetically superior seedlings planting at increased stocking levels precommercial thinning to control the spacing of trees one to three commercial thinnings both to harvest trees early and con centrate growth on the re maining trees and manag ing for a rotation age close to the point in time where average annual growth is highest This type of management is planned for the majority of the Forest s acres Other resource re quirements for some lands may either prohibit timber harvesting (old growth and roadless recreation management) lengthen rotations (riparian areas and scenic corridors) or alter thinning practices (big game em phasis areas) The allowable sale quantity (ASQ) in the first decade that results from this mix of practices is 125 million board feet

Now on the surface that sounds reasonable Which makes us wonder if it s not broken why are we fixing it?

Too often it seems that the trees are largely left to fend for themselves while loggers spend large amounts on roads fences bridges and manicuring the multiple use forest We tend to spend all of our time changing and reshaping the forest we have without putting enough effort into developing new forests in areas where trees would grow if they were planted

Meanwhile back at the ranch maintaining a na tional forest at the pleasure of the public is an ever changing program for foresters and planners We are always changing our minds about what we want and none of us want the same things There have been times that the only way that foresters could satisfy oppos ing demands was to cut the baby in half Cutting the baby in half then brought in previously disinterested par ties who have entirely dif ferent agendas

This is supposed to be a plan that reaches out there 20 years into the future That means it is to be a plan that all of us will have to live with or without for the next 20 years If it is done right, we will enjoy the use of the forest for the next 20 years If it isn t the survivors may en joy the use of the forest for the next 20 years and/or they may just see it from a distance if the roads are not open

The Forest Service operates in response to legislation and public pressure They are still pro specting for a plan that we can all like if you can im agine that ever happening

We will only benefit if we can develop that plan through some program other than an an adversarial pro cess even though that seems to be what the system design calls for To the contrary the foresters and loggers and recreationists and ranchers need to decide that they are all on the same side if the special needs of a very special piece of public real estate are to be satisfied

That special piece of real estate is what attracted many of us here I question how many of us can and will continue to be as happy with the product if we continue at efforts to change it around

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FS 1000-8 (12-80)

Ochoco plan claims disputed

By Stephanie Monson
Bulletin Staff Writer

PRINEVILLE — US Forest Service officials are challenging a Seattle economist s claim that 317 jobs will be lost because of a proposed land management plan for the Ochoco National Forest

Brian Long, hired by the Cen tral Oregon Economic Develop ment Council to do the $3 000 study presented his findings at a press conference and several meet ings with Central Oregon govern ment officials held last week

In his study which took about three weeks Long concluded that the proposed plan calls for timber harvest levels that are too low, causing 'unacceptably high losses in jobs and income

The plan also would make it difficult to attract new remanufac turing plants because it does not provide for a stable timber supply and because it permanently limits supply the study said

Long also said at a Thursday press conference that the timber industry has recovered from the recession of the early 1980s and that production is back up

However, Long said employ ment in the timber industry is still down by about 750 positions in Crook Grant, Harney and Wheeler counties when compared with 1976 job figures

Long admitted the loss of jobs is caused in part to automation of sawmills but he said a decrease in the timber supply coupled with modernization of mills would cause an even greater job loss

The establishment of remanu facturing businesses is one way to employ workers displaced by mod ernization of mills he said

Meanwhile Paul Cuddy Ocho co forest plan analyst said the harvest levels on which Long based his study are unrealistic

Long said 317 jobs would be lost if the Forest Service dropped its harvest level from the current average of 147 million board feet a year to the proposed 123 million board feet

Cuddy explained that 147 mil lion board feet was the average amount of timber sold annually between 1984 and 1986 but that amount is much larger than the 10 year average

That s because the Forest Serv ice has been reselling contracts for timber that the timber industry returned under the federal buyout program which allowed some mills to return unprofitable contracts purchased in the early 1980s Cud dy explained

The 147 million board foot fig ure ' represents an extreme point Cuddy said

The plan under which the for est currently operates sets annual timber sales at 125 million board feet slightly more than the 123 million board feet proposed in the draft plan

Cuddy added that the annual average timber harvest from 1975 to 1984 was 106 million board feet

Dave Rittersbacher Ochoco forest supervisor said Long s study is helpful because it points out the need for the plan to consider the needs of the remanu facturing industry

Findings made by Long and others who comment on the plan will help the Forest Service decide how to manage the forest s re sources Rittersbacher said

Forest Management plan may take year to prepare

By Tami Brucker

Some have pressed for more timber some for more roadless and scenic areas some for more firewood and wildlife habitats

Different individuals and groups have varying ideas about the way the Ochoco National Forest should be managed and it will be virtually impossible to fully accommodate every interest in the upcoming forest management plan said Forest Supervisor Dave Rittersbacher

We know whatever alternative we select won't please everybody he said referring to the 11 alternatives outlined in the Proposed Land and Resource Management Plan and Draft Environmental Impact Statement documents

What we d like to do is please as many as possible to the extent that resource information is matched he said

But it will be at least a year maybe longer before anyone will see a forest management plan Rittersbacher said Analyzing hundreds of public opinions and preparing a 10- to-15-year forest management plan that addresses 12 major issues and concerns is going to take some time and effort he said

This will be the first time we've had the opportunity to prepare a fully integrated forest plan he said. We used to have separate timber management plans separate fire management plans separate wilderness management plans and so forth

All that changed however, with the National Forest Management Act of 1976 which mandates that each forest will have an integrated plan one in which every major issue or concern voiced by the public will be addressed collectively in the next long term management plan

It s taken almost five years to gather public opinions identify key issues of the Ochoco National Forest and prepare the two hefty documents that explain in great detail 11 alternative ways the forest can be managed

Each alternative focuses on a

DAVE RITTERSBACHER

theme and each theme is highlighted at the expense of another theme Rittersbacher said For example H Departure Alternative would allow maximum timber harvests but would further restrict roadless recreation On the other end of the spectrum C Alternative focuses on amenity values such as roadless recreation wildlife habitat and the like but decreases the quantity of timber allowed for sale

In compliance with Congressional law the Forest Service has identified a preferred alternative It selected E-Departure because it would provide the best mix of benefits based on the issues and concerns identified, Rittersbacher said. It does this by providing for a mix of amenities while also providing for near-current levels of timber harvest for the next 20 years

By providing more available timber in the early decades (of the future management plan), the forest could continue to maintain its current contribution to local economies while allowing communities time to adjust to a gradual decline in timber harvest he said

E Departure has sparked a considerable amount of criticism from timber operators as well as an independent economist hired by the Central Oregon Economic Development Council They have stated jobs in Crook County will diminish as a result of a reduced timber harvest if the Forest Service s preferred alternative is implemented

Crook County could Rittersbacher said lose an estimated 69 timber related jobs if E Departure is selected but an estimated 59 recreation oriented jobs would be created here

> "We know what ever alternative we select won't please everybody"

On a forest wide basis however E Departure comes up with a net job increase of 63 he said and what that means is that the other counties are sharing in an increased number of jobs

Modernization within the wood products industry and new resource data for example could cause an economic fluctuation also he said

More importantly Rittersbacher stressed is that all the figures associated with the alternatives such as the number of jobs created or reduced are estimates based on the 1984 economy And he added the Forest Service must consider the whole forest not just one of five counties over which the forest is located

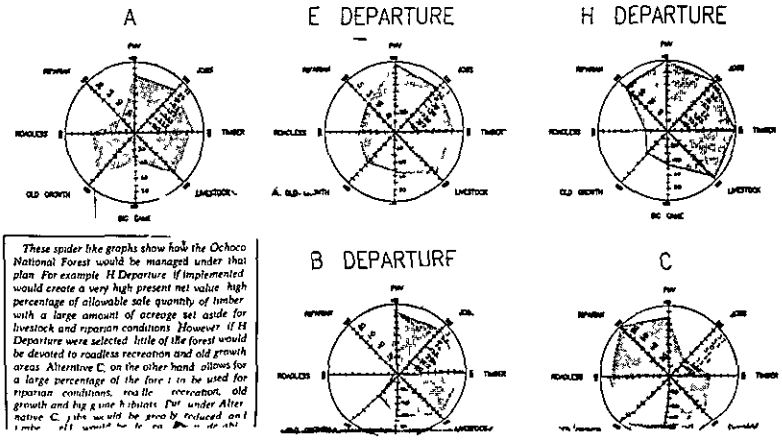
A brighter aspect of E Departure he continued is that when compared to the other 10 alternatives it has the third highest present net value (PNV) at $463 million

The PNV of the forest is greatly affected by the amount of timber harvested, he said For example if the timber industry s B Plus Alternative is put into effect it could be less efficient than other alternatives

If we intensified timber management on every acre we can reach the point where the costs far exceed the benefits, he said

Rittersbacher said the B Plus plan which was created by the timber operators and not the Forest Service would be considered along with the other alternatives

We re not locked into our preference Rittersbacher said We will consider every opinion and we hope our final plan will have public support, even though it will not please everyone



These spider like graphs show how the Ochoco National Forest would be managed under that plan For example H Departure if implemented would create a very high present net value high percentage of allowable sale quantity of timber with a large amount of acreage set aside for livestock and riparian conditions However if H Departure were selected little of the forest would be devoted to roadless recreation and old growth areas Alternative C on the other hand allows for a large percentage of the forest to be used for riparian conditions roadless recreation old growth and big game habitats But under Alternative C jobs would be greatly reduced and timber [illegible]

Ochoco plan review set

PRINEVILLE — The Prineville City Council Wednesday will hold a special meeting to discuss the comments it will submit on a proposed management plan for the Ochoco National Forest

The meeting begins at 7 p m in Prineville City Hall

City Administrator Henry Hartley said the meeting was called to give the council time to respond to the plan before the 90 day public comment period ends Saturday

In other business the council will hold the second of two public hearings on an ordinance that would tighten the rules for collecting back payments on city residents water bills

NEWSPAPER CLIPPING SLIP

Name of paper: The Bulletin
Where published: Bend, OR
Date of issue: 12-16-86
Sent by: Inez Cuellar
Stationed at: Ochoco N.F.

Please send comments

To the editor

We are rapidly approaching the deadline for comments concerning the Ochoco National Forest plan Within the past week an abundance of information has come out from different groups supporting various alternatives within the draft environmental impact statement.

While there is a great difference between the user groups concerning amounts of roadless areas old growth management, and allowable timber harvest levels there are two common threads in everyone s opinion The first is that no one believes that clearcutting and even aged management are the proper methods of managing ponderosa pine The second is that there should be an even flow and sustainable yield of timber from the forest.

The preferred alternative requires a departure or accelerated cut in the early years with a drastic reduction in later years

Within the timber industry we believe that the harvest level should establish at the level which the forest is growing We don t want more than can be grown but on those lands currently classed as commercial forest land the harvestable crop should be available for use

Multiple use to us means managing each area with consideration being given to each use which could be imposed on that acre

Timber harvesting is compatible with other uses within the forest if everyone does his job It just doesn't make sense to me to establish different blocks of forest for different uses

The important thing is that we all let the Forest Service know how we feel There are not many of us that do not use the forest for one thing or another be it a picnic at Dehlinment Lake firewood cutting or hunting in the fall

If we do not let the Forest Service know how we want the forest to be managed, it will be managed the way the people in Los Angeles and New York think they want it managed I don't believe any of us that work or play in the forest would like the results.

Please take 10 minutes and let the forest supervisor know how you feel Comments should be addressed to Forest supervisor Ochoco National Forest, Box 490 Prineville Ore 97754

Don Witte
Timber manager Snow Mountain Pine

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: TIMES-HERALD
Where published: BURNS, OR
Date of issue: 12/17/86
Sent by: F HARNISCH
Stationed at: SNOW MTN
Forest Officers

Proposed forest plan flexible, says ranger

By JIM DONOVAN
The Times-Herald

The proposed Ochoco National Forest Plan is flexible enough to incorporate uneven aged management according to the head of the forest s Snow Mountain District

Some observers are not as sanguine believing that the even aged assumption is a serious perhaps even fatal flaw in the planning

District Ranger Fred Harmisch affirmed that the Ochoco s planners assumed even aged management in every option considered in a recent draft environmental impact statement But he said that should even aged management prove feasible on the Ochoco the Forest Services preferred alternative (E departure) could accommodate that form of management

"Whatever plan we decide on " Harmisch said last week "it s not like the Ten Commandments It s a very flexible plan "

Even aged management means that timber is harvested through clearcutting where all or nearly all the trees in a stand are cut. Reforestation results in a stand of trees all about the same age and size

The new stands would be harvested in about 50 years before the trees reach the size of the larger trees now on the forest. Timber firms dislike the practice because it first requires them to use smaller less suitable trees and later decreases the size of all trees cut With even aged management mills will have to retool for smaller trees

Lawson LeGate the newly elected chairman of Oregon s chapter of the Sierra Club believes the Forest Service plans place an undue emphasis on clearcutting and even-aged management

Don Witte the timber manager for Snow Mountain Pine Co in Hines believes the alternatives including that chosen by the Forest Service as its preferred alternative are all rendered invalid by the even-aged assumption

"I don t know why the entire plan is based on even-aged management," Witte said in a recent interview except that I have a suspicion that s the only computer model they've got "

Harmisch acknowledged that the Ochoco s plans have all been based on a computer model that uses only even aged management. But he said that the Deschutes National Forest has been using a computer model that incorporates uneven aged management. "We re looking into that " he said

Mike Znerold the forest silviculturalist (tree cultivation specialist) for the Deschutes National Forest confirmed that his forest is indeed using such a model

"It s called Prognosis " Znerold said "It was developed in the 1970s by the Forest Science Laboratory in Moscow Idaho and has recently been calibrated for the central Oregon plateau

"It has some ability to model uneven-aged management, or a variety of tree sizes and to understand inter tree relationships better than other models We feel after literally hundreds and hundreds of runs that it seems to model multi-aged stands *satisfactorily* "

Znerold said that with ponderosa pine Prognosis unlike most other Forest Service models uses actual data from actual stands "We re not growing imaginary trees with this model " he said "These are actual figures "

Using that data Prognosis has modeled six different strategies, he said One is clearcutting some are shelterwood strategies and one is a multi aged management strategy

"The results in ponderosa pine " Znerold said "show that multi aged management produces the same over 150 years as clearcutting

"It s what we call 'biological potential '" he said "A piece of ground has only so much in nutrients You can put it in a different configuration — fewer fast-growing trees or more slower growing trees — but it doesn't change much "

But Znerold cautioned that multi aged management may not work as well on the Ochoco as it does on the Deschutes.

"We're blessed with forgiving soils (on the Deschutes) " he said "On the Ochoco there are some very sensitive soils and compaction could be a problem We would be worried about that."

Harmisch agreed that soil compaction is a concern on the Ochoco "We've been into some areas two or three times " he said, adding that the soils there are becoming too compacted "Every 20 years could be too often " he said

But he also said that most of the Ochoco's logging takes place in the winter when the ground is frozen and compaction is not as likely to occur

"Soil moisture enters into it," he said "Springtime is really our most critical time (for soil compaction) "

"Eighty percent of the Ochoco forest is two-story (varying sizes) ponderosa pine Harmisch said "With the E-departure Alternative (the preferred alternative) that will be gone within 20 years." Harmisch added that he would not like to see that happen

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: TIMES-HERALD
Where published: BURNS OR
Date of issue: 12/17/86
Sent by: F Harmisch
Stationed at: SNOW MTN
Forest Officers

Keep forest on sustained yield

To the Editor

When I moved to Prineville in 1981 I was dismayed to see the numerous empty buildings throughout the whole town Unemployment was over 20 percent and a pessimistic attitude filled the minds and hearts of local people All of this was due to the severe timber recession that was affecting virtually every resident of Crooked County How many of you remember that?

Right now you each have the power to prevent a similar economic downturn from occurring again The U S Forest Service is asking for comments from the public about the management of the Ochoco National Forest

Each of you can voice your *opinion You do not need to* understand every aspect of the plan You may write I wish to retain sufficient timber for our mills to operate or I want you to manage so that we can cut trees selectively and still have scenic roadways or please cut old trees which have great dollar value before they die so that they won t be wasted Your letter need not be long a paragraph or two is sufficient The more letters received the better so both husband and wife *should write separate letters*

Now at Christmas think about what you have to be thankful for and whether the timber industry in Crook County affects your life or not If you are directly employed in the industry then it is obvious But if you are a merchant or small business owner do your customers earn their living from the Ochoco National Forest? U S Forest receipts are paid to the Crook County School District and to the local county government to help keep our taxes lower than if that income source was absent

Those of us involved in the timber industry want and need the Ochoco National Forest to be managed on a sustained yield basis That means cutting only enough trees than are continually replaced with younger healthy trees We plan to be in Prineville for many years to come

So please take the time right now to protect your economic future and that of your children The deadline for letters is December 29 Voice your desire about the management of the Ochoco National Forest by writing to the Forest Supervisor Box 490 Prineville OR 97754

If you could take a few extra minutes to send me a copy of your letter I will forward it to Senator Mark Hatfield and to Representative Bob Smith both of whom are vitally concerned with the Ochoco National Forest Plan

Mrs Linda Sheik
37 Pokegama Dr
Powell Butte OR 97753

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: Central Oregonian
Where published: Prineville, OR
Date of issue: 12-18-86
Sent by: Inez Cuellar
Stationed at: Ochoco N.F.

State ownership best ONF plan

To the Editor

The forest nurtured by the three basics of survival the sun the soil and water is a living dynamic and extremely complex system A system which provides for us a multitude of surface renewable resources as well as access to those which are non renewable and therefore *depletable In addition to the* consumptive and commodity resources are numerous ones of human experience

How to manage and utilize the treasures of the forest for the greatest good of the greatest number in the long run is the ever controversial question This is and has been the quest of the Forest Service since 1905 This is their charge their primary purpose for existence

What is the greatest good for the greatest number in the long run? Now here is where things start to get a little sticky! I am sure that we are talking about the greatest good for people and not woodpeckers spotted owls or side hill gougers — but there are lots of folks who would argue otherwise

I've read the Draft Environmental Statement and the proposed management alternatives Then I weighed them on my bathroom scales I got more comprehension from the latter From where I sit departures from prudent management have already been made that are far too numerous and single-interest oriented to be considered a balanced approach

The people of Crook County and the adjacent counties are the ones who will derive the most benefit from a balanced *management approach for the* Ochoco National Forest We hold that aspect in common with all citizens who live near a forest regardless of where they are located In other words local folks need more consideration.

Under current law it is probably illegal to use a common sense approach to a common problem In the last two decades Congress has passed so many laws which effect the management of National Forests that decisions based on common sense and good judgement have been taken out of the hands of Foresters and Rangers

Keep in mind that the same process of National Forest land use planning and *management is* occurring for all National Forests in the system I ll lay you odds that our local dissatisfaction with the proposed plan has plenty of parallels After all how many worthwhile projects can you think of that get better under the management of the Federal Government?

To get to where we need to be we should back up first Have a different departure alternative One that departs from federal ownership of any land within the boundaries of a sovereign state

Peter s Principle prevails The Forest Service as a bureaucracy like a bureaucrat has been promoted and processed to and beyond it s level of incompetency Killed by Congress and special interest groups it no longer has the professional integrity latitude or sensitivity to respond to local needs

We need to gain title to all federal lands in the name of the State of Oregon. Then we can *make* a plan which is responsive to realistic local needs for the greatest good for the greatest number of area dependent people in the long run.

- Jack C Kerr
- U S F S Retired
- Prineville

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Name of paper: Central Oregonian
Where published: Prineville, OR
Date of issue: 12-18-86
Sent by: Inez Cuellar
Stationed at: Ochoco N.F.

Council backs Ochoco plan resolution

By David Braly
Bulletin Correspondent

PRINEVILLE — Members of the Prineville City Council endorsed a "generic and broad based resolution Wednesday on the proposed land management plan for the Ochoco National Forest

The sole dissenter was council member Hugh Dragich who said that members should express opinions as citizens, not together He said he planned to write his own letter to the U S Forest Service about the plan

Mayor Wallace Boe disagreed saying, ' If we could collectively represent the best interests of the city I think we should do that

Several other council members also were reluctant to take a stand on the issue, but agreed to do so because the resolution they were asked to endorse was so mild

The resolution states that the council endorses any modification to the Ochoco management plan which would maintain or increase *timber related employment* through intensively managing a balanced timber base suitable for all users of the forest (and) increasing salvage programs to maximize timber production

We feel that a major factor to be considered in managing the forest is economic stability of the local community and our quality of life

An amendment by council member Ann Graf was added calling for grazing rights to be managed in such a way as to benefit both the grazer and land use

Council member Ron Jay said he felt he lacked enough knowledge of the complex issue So did council member Joe Strauss who said he *knew nothing at all about the* timber industry before he moved to Prineville, but that the resolution was so generic and broad based that it could do no harm

City Administrator Henry Hartley said the resolution was based on a similar one passed by the Prineville Crook County Chamber of Commerce's legislative committee

Council member Steve Uffelman said he was disappointed that the resolution was not stronger since the Forest Service's plan would have a major long term impact on the community

Earl Layser a member of the Ochoco National Forest planning *staff said the reduction of the* timber yield under the plan would amount to about 5 percent a decade and that timber from private lands would make up the difference

The resolution passed 5 1 Council member Gerald Blank was absent

No representative of local timber companies or mill employees appeared at the meeting

USDA—FOREST SERVICE

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Name of paper: The Bulletin
Where published: Bend, OR
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Sent by: Inez Cuellar
Stationed at: Ochoco N.F.

Keep Lookout roadless area

To the Editor

Lookout! I yelled as my skis plunged down the narrowing trail off the summit of Lookout Mountain Somewhere close to a hundred miles per hour I selected quite by accident an ample old Fir tree to collide with. It had lost its limber qualities centuries before our intimate meeting I learned an important concept The trees you select are critical

Lookout! I screamed as my mountain bike left the horse trail on Lookout Mountain for uncharted turf The bike stopped suddenly of its own volition leaving me catapulting toward impending doom Luckily I had worn my helmet I learned another important concept Rise your head

At critical times like these it pays to remember simple concepts The two above apply also when it comes to Lookout Mountain and the Ochoco Forest Plan Critical issues face our community because of the lumber we depend on the environment we live in, and the recreation we enjoy

If Prineville is to diversify its economy recreation is the most feasible direction Maintaining the visual appearance of Lookout Mountain is vital if we are going to pursue or even maintain that economic avenue toward prosperity Snowmobilers and cross-country skiers are working together towards shared use of this mountain Mountain bikers are discovering its trails Hunters are well aware of the elk herds and grouse coveys I believe we can maintain timber industry jobs and develop recreation jobs To do this Lookout must remain roadless

More than half of the current Lookout Mountain Roadless area exhibits severe erosion hazards To open the road to the summit would be a drastic measure The large relatively flat open terrain in the center of the area is the favorite for winter sports enthusiasts It is an extremely fragile ecological environment Soils are very thin Motorized vehicles other than snowmobiles could destroy this fragile habitat The timber industry has supported maintaining the summits roadless status Leave Lookout roadless

Four wheel-drive rigs motorcycles three wheelers four wheelers and any other ATVs have a mountain with a road to the top Round Mountain Leave [illegible]

Lastly when snowmobilers and skiers can get together to convey a spirit of compromise, the timber industry the environmentalists and the diversified recreational enthusiasts can do the same in such a way that all can benefit. The quality of life is as important as maintaining our standard of living It can happen on Lookout Mountain We can maintain the scenic splendor by careful management. The mountain must be left intact so our children can Lookout and see what we have preserved The trees we select are critical Let s use our heads creatively and cooperatively so that our community can reap the benefits of cautious use rather than thoughtless abuse

Casey Callan
84 86 President
Ochoco Chapter of the Oregon Nordic Club
Prineville

USDA—FOREST SERVICE

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Where published: Prineville, OR
Date of issue: 12-18-86
Sent by: Inez Cuellar
Stationed at: Ochoco N.F.
Forest Officers

Logger endorses the B-Plus plan

To the Editor

Taking into consideration the various proposals offered by the Forest Service for the management of the Ochoco National Forest, I m in favor of the B Plus plan proposed by timber operators as a modification to the F S alternative B Plan Among other things the B Plus plan sets the area to be harvested at their present level which is vital to the economy of Central Oregon This proposal would also leave the Lookout area roadless as it is now It calls for intensive reforestation which is urgently needed and recommends seasonal road closures which would be beneficial to wildlife I would further suggest that there is little need for all logging roads to be constructed as major highways In many cases a dirt road would serve the same purpose at a greatly reduced construction cost to the logging operator And at the termination of timber harvests the existing road could revert to a natural state Anyone who has observed old logging roads knows they soon become covered with new growth that is if any seed trees are left standing in the area

However the current practice of clear-cutting and over thinning of immature timber stands does little to encourage natural re seeding

Supposedly reproduction is seedlings and small trees up to seven inches in diameter But it is the 9-inch to 14-inch in diameter trees now being harvested that have the potential for survival and rapid growth Normally natural selection will thin the saplings The policy of thinning young growth on a 100-foot radius often defeats its own purpose of providing room for the leave trees to grow Trees in a thicket survive through competition and the ones which become taller and less covered with limbs become chosen leave trees But, when the competition is removed observation will confirm that many leave trees have become dependant upon and protected by their less desirable neighbors to the extent that they are too weak to stand the shock of being isolated Within a year, heavy snows wind and other natural forces bend them as a source of wood-fiber for future generations Ideally the thinning process should consist of two or three less harsh cuttings until the desired spacing is attained over a period of perhaps 10 years

Likewise, the concept of clear-cutting Ponderosa Pine in Eastern Oregon is questionable Not only does it remove old-growth timber but it is the destruction of all desirable vegetation leaving a lasting scar on the land, subject to wind and water erosion It seems like poor management to remove all the existing trees and attempt to reforest when young vigorous trees are already established The planting on new seedlings in the Ochoco environment is risky at best. With nothing left to maintain soil moisture or reduce soil temperature the newly established plantations are at the mercy of the elements The bulk of Eastern Oregon is desert Because of little rainfall seedlings will not survive or put on growth as fast as they do on the west side of the Cascades A good example of what can happen when all vegetation is removed is the Marks Creek Burn It is going on 20 years since it burned in 1968 and even with intensive management it will be many years into the future before it once again produces merchantible timber perhaps it never will The burn is comparable to a clear cut It seems to make more barren areas in the Ochoco National Forest which may be and probably will turn into a desert landscape I think it would be more reasonable to selective cut and salvage log At least in this manner there would still be healthy growing trees in the area and if done correctly it could supply the allowable cut for decades to come

Also think about the wildlife Under contract stipulations I have cut many trees that were home to a variety of birds and animals For instance when a whole area is clear cut and then prescribed burned, it destroys the remaining snags food and ground shelter The rotten logs and root wads are where most of the small animals live and it also provides protection for larger game Prescribed burning is a needed tool in forest management but broad-cast burning of everything is no different than wildfire which in the present state of forest conditions is complete destruction Also we are required to kill trees that are still putting on growth to provide new shelter for wildlife That doesn t make much sense either

The proposal to construct roads no doubt they would be high standards into the Lookout Mt. roadless area for timber harvest is difficult to justify I have lived at the base of the mountain most of my life and have walked almost every foot of the mountain. I hunt Lookout and camp up there Lookout Mt. is a beautiful place and I love it up there

As for those who would like to have the road over the top of Lookout Mt. re-opened I believe what they really want is just a high place to look at the surrounding country This can be done by driving to the top of Round Mt. or Pisgah, which are not closed to vehicle traffic

I would hate to see Lookout Mt. clear-cut, but I also see millions of board feet of over mature timber that is going to waste. I know the trees could be salvaged and done in a manner that would not severely impact the environment if efficient operators were allowed to do the job But, if it s going to be another clear-cut, just leave it alone And that goes for all the roadless or wilderness areas on the entire forest.

I hate to see the forest gutted for the sake of short term gains and I m a logger In the past 10 years I ve seen the government waste money in resources from the lack of using a little common sense All loggers are not stupid as some would like to believe Neither is the F.S manual any more than a guideline to aid in the sensible administration of a timber sale contract

We loggers know how to do our job right and like anyone else we take pride in our work It creates a very difficult work relationship when someone unskilled in the production end of logging is constantly telling us how to perform a job that is our chosen profession It would be a pleasant change if loggers and Forest Service personel would work together to get something worthwhile accomplished instead of arguing over rules and regulations With a little cooperation and understanding on both sides it could be done

This plan is of vital concern to everyone in Central Oregon All interested people should express their opinion on this important issue

Stephen D Ontko
Timber Faller
Prineville

USDA—FOREST SERVICE

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Sent by: Inez Cuellar
Stationed at: Ochoco N.F.

Ochoco plan comments overwhelm forest staff

By Stephanie Manson
Bulletin Staff Writer

PRINEVILLE — The mail room at Ochoco National Forest headquarters is awash this week as forest staffers sort through a flood of last minute comments on the Ochoco s proposed land management plan

The number of letters received by Monday was about 2 000 — almost 400 more written comments than were received last spring on a proposed plan for the Deschutes National Forest

The 90 day public comment period on the proposed plan and draft environmental impact statement ended Saturday

Fort Lawser planning staff officer for the Ochoco forest reported that letters about proposed timber harvest levels the local economy the Lookout Mountain roadless area grazing and wildlife habitat were leading the pack

About 60 percent of the comments have been form letters provided to millworkers by the Ochoco Timber Purchasers Group an organization composed of Central Oregon lumber mills Lawser said

Most of the form letters endorsed Alternative B Plus a plan drawn up by the timber industry The plan would set the annual timber harvest level at 137 million board feet The yearly level proposed by the Forest Service is 123 million board feet

Many of the form letters were simple blanket endorsements of the industry alternative not the substantive comments the Forest Service was after Lawser said

It s not a vote counting thing that we re after Lawser said The Forest Service wanted to know why people felt the way they did he said

Lawser said other form letter campaigns included requests to reopen the road to the top of Lookout Mountain and keep the area open to snowmobilers

USDA—FOREST SERVICE

NEWSPAPER CLIPPING SLIP

Name of paper: The Bulletin
Where published: Bend, OR
Date of issue: 12-23-86
Sent by: Inez Cuellar
Stationed at: Ochoco NF

—Editorial—

The Ochoco National Forest Plan, whatever shape it takes when it becomes final, will have profound effects on Harney County For that reason, and because public comment has been slow in getting started, we believe that the comment period, which expired Dec 20, should be extended

Some timber industry spokesmen claim that the proposed plan, E-departure, will reduce by 40 percent the acreage designated for full timber harvest

A Seattle economist claims that the plan would cost 317 jobs in Grant, Wheeler, Crook, and Harney counties, the four that contain parts of the Ochoco

Conversely, a recent timber inventory on the Deschutes National Forest reveals that the amount of ponderosa pine growing there is 39 percent below what was previously thought Lawson LeGate, president of the Oregon Sierra Club, believes that the revelation "probably signals the death knell for industry efforts to greatly increase logging levels on the Deschutes and the Ochoco national forests"

The timber industry believes it is not asking for increased harvests, just a continuation of those of the past The Sierra Club claims that the past levels have resulted in "rampant overcutting"

Whether a reduction is justified or not, it seems certain that adoption of the Forest Service's E-departure Alternative would result in decreased timber harvests on the Ochoco Forest Service planners say that they must do so to satisfy federal requirements for a sustained yield (cutting timber at the rate at which the forest is growing) and for adequate wildlife habitat

E-departure would triple the acres of roadless area, more than double the acres devoted primarily to wildlife habitat, and nearly double the acres managed for excellent riparian conditions The difference between E-departure and current practice in all three areas amounts to some 160,000 acres not devoted to timber harvest

Many of these are now available for timber production, and while some of them would still be managed (harvested), their rotation schedules would be much longer, and timber harvests in them would drastically decrease

E-departure calls for slight decreases in timber harvest in the first decade, and greatly reduced harvests thereafter The first decade's harvest levels are held higher than sustained yield levels to soften the blow on counties and lumber mills In later decades harvests are reduced below sustained yield levels to make up for the first decade's harvests

Because of the inevitable reductions in timber harvests, which would considerably reduce the revenues to Harney, Grant, Wheeler, and Crook counties in the future, and because of the many other important aspects of the forest plan, the citizens of the four counties mainly effected deserve more time to submit their comments to the Forest Service

To request an extension of the comment period, write Dave Rittersbacher, Ochoco National Forest Supervisor, Box 490, Prineville, Ore , 97754

USDA—FOREST SERVICE

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Appeal was sure for plans

By Stephanie Monson
Bulletin Staff Writer

If the timber industry hadn't filed an appeal on the proposed land management plans for the Deschutes and Ochoco national forests environmental groups would have — although for different reasons

The Northwest Forest Resources Council, a timber industry trade group objected to the way the land management plans under which forests currently are operating were outlined in draft forest plans

The timber industry appeal may result in another 90 day public comment period on draft plans released for the Central Oregon forests and five other forests in Oregon and Washington (See related story Page A 1)

Each proposed forest plan contains an array of alternatives for managing the forest one of which is supposed to show the results of continuing to manage the forest as it has been in the past

Don Irvon southeast field coordinator for the Oregon Natural Resources Council said today that the current alternative contained in at least the Ochoco forest plan understates the amount of land set aside in past years for such things as forage and cover for deer and for streamside management

Meanwhile John Shelk general managing partner for Ochoco Lumber Co today said he is pleased that Forest Service officials have decided to resubmit the plans to the public

However Shelk said I think it's a good call if and only if the people responsible for making the decisions on the various national forest will pay attention to (additional public comment)

I would hope they have their ears open and their minds open Shelk added

Ochoco forest supervisor Dave Rittersbacher said he was not sure if his forest's plan would again be submitted to the public

I'm not sure that it (the order) applies to all the forests although I think that it does he said

Rittersbacher said he thought the opportunity for forest officials to again touch base with the public before writing a final plan could be very positive

However Larry Mullen chief forest planner on the Deschutes forest predicted that reopening the public comment period would have a negative effect

We got a little shook about it because we were so close to being done with the final plan he said

Mullen predicted that reopening the comment period would [illegible] days settling the [illegible] plan one and that [illegible]

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Forest Officers
You are requested to clip any important newspaper article concerning forestry or the work of the Forest Service. Attach this gummed slip to the article and after filling in the blanks, forward it to the Regional Forester in accordance with Regional instructions.

Multiple use concept is valid

To the Editor

Naturally having been associated with the lumber business and logging all my life, I am in favor of the multiple use concept for our Ochoco forests and I firmly believe this can be accomplished with the cooperation of all factions

Back in the late 30s and early 40s we logged in many areas of these forests Right now you can hardly tell where we had been except for occasional stumps that have not decomposed The roads were pushed in with an old TD 14 or 4T with no rock added and these old roads have grown up with reproduction and grasses all on their own with no man or mechanized seeding I maintain that loggers can go into the roadless area and get the old growth with very little disturbance No fancy roads just a dirt track then push the soil back so there are no highly visible scars and reseed Then there would be no more entry into these forests for another 20 to 40 years or longer

As far as the compaction from skidding or hauling with the fall and early winter moisture then the freezing and swelling of the ground and eventual thaw and settling make these areas good for reseeding How many of you have traveled a natural dirt road in the Ochocos in the summer that was well packed and then returned in the spring to travel the same road and fell into your proverbial axles or worse?

In the 40s the USFS started requiring us to rock the roads The method of doing this was with cat and can and eventually loaders and dump trucks and all with pit run rock with close access to the roads These are some of the best roads still in use in the forest At this time the forests needed opening up for fire protection

Then, a little later in time along came your recreationists and another group the gravel crushers The recreationists wanted more access better roads etc and now they want less roads and no access areas Our stand has always been the same. The recreationists and preservationists are continually changing forcing us to fight for survival every year day by day The gravel crushers went to politicking to gravel the roads The first wave of them came in and went into competition with each other for what they thought were lucrative jobs and all went bankrupt or had to pull out because they could not afford to compete All of this was a great loss to Crook County coffers because it devalued the timber by raising the costs and the monies the county was to receive for their schools and roads decreased measurably because of all the additional costs to remove the timber

Then along came the recreationists and threw most of the gravel off the roads with their pickups and cars Then when the next sale is put up in that same area there are more costs for replacing the crushed rock and again the county suffers dollar losses. Regardless of what people think logging trucks are not the culprits that throw the rock from the road and cause the washboard effect it is the pickups and cars driving at excessive speed etc

Another way to reproduce trees is to have the tree farms in areas close to where you want to replant Then instead of replanting open scab flats plant the seedlings on the north side of the stumps recently removed This gives the new tree more moisture and more protection from wild and domestic animals and a much better chance for survival It is tough for a seedling to survive when taken from a nursery where it has been fertilized and pampered at the 3 000-foot elevation and replant it at 5 000 or 6,000 feet to fight for its life

The farmers and ranchers here in the Prineville valley should be very concerned about water supplies in the future The Wildcat area drains into the Ochoco Reservoir and 3/4 of the Lookout run-off goes into Ochoco Creek with the balance draining into the Prineville Reservoir The large pine tree drinks at least 8 gallons per day the large fir tree approximately 13 gallons per day Multiply this out by the number of big trees that should be removed and there are millions of gallons of water not coming off these watersheds Through the years we have logged several areas similar to Lookout and Upper Mill Creek In just about all cases new springs have sprung up in these areas where no water had previously existed. This new water creates better grass and water for your wildlife and domestic animals and in many cases makes your riparian along the stream banks not look so important due to decreases in animal travel

Then there is the forest fire hazard Over a period of time these roadless areas will be like a jungle You will need to be Tarzan to get through The large old trees will eventually fall and in the falling process will take many smaller trees with them and create a jackstraw effect where even Mr Rinehart with all his athletic prowess would not be able to travel with any enjoyment Then comes the lightning a dropped cigarette a spark from a preservationist's bonfire and wham there goes the whole big mistake up in smoke since no mechanized equipment can go in to fight the fire Also can you imagine the lawsuits where the fire jumps onto private land"

What I have been trying to say is that we can all get along with the proper management by the USFS The loggers are professional people too learning something new every day and spending their entire lifetimes in the woods

We in the lumber business need the big old trees to survive We need the volume and land base which help keep more jobs in the county so the stores uptown get more business and the county gets more funds to help keep taxes down to support the county schools and road

The recreationists still get what they want roadless areas after the overstory is removed a cleaner forest for all recreational needs more water for wildlife and reservoirs less fire hazard etc

Let's work together to accomplish what we all want and need I am sure the big man in the heavens did not mean for any one group to control the natural resources he put on this earth

Even though the December 20th deadline has passed I am sure the USFS would be interested in your comments especially if you are not directly associated with the lumber industry Urge them to keep to a minimum the costs on roads skidding methods etc so that the value of timber is higher By doing this you as taxpayers will ultimately benefit and there will be considerably more money in the coffers for schools and county roads

Jack Rhoden
Prineville

Comments deluge Ochoco planners

By JIM DONOVAN
The Times Herald

The response to the Ochoco National Forest's proposed plan has been overwhelming, according to Earl Layser, a planner for the Ochoco

"We have three or four people working full time on the comments, and two part time," Layser said in a telephone interview Dec 29 "And we're going to get some more "

The Forest Service has received more than 2 000 comments — one day it got more than 600 letters, Layser said "The mail room has just been swamped "

"I think we can say there's been excellent response," he said, adding that the Deschutes National Forest received about 1,600 responses during the recent comment period for its proposed plan

Layser said that more than half of the comments received have been form letters — some from the timber industry, some from snowmobile groups, and others He expressed disappointment that these letters offered little substantive information to Forest Service planners "We know that 1,000 people voted for the timber industry's B plus alternative But that doesn't really tell us much It's just counting votes "

Layser said that though the Forest Service is not interested in vote counting, the fact that many people in the affected area feel strongly one way or another will be taken into consideration by planners

But he said that there were also many comments from people asking for more roadless areas and greatly reduced timber harvest "It's very polarized," he said

Layser also said that he had received the letter from Harney County Judge Dale White and

Continued on Page 5

Continued from Page 1

the county court concerning the Ochoco plan He said the letter would carry exactly the same weight with planners as a letter from an individual He added that the Forest Service has received letters from the county courts of three of the five counties affected by the proposed plan

The Harney County Court expressed the desire for multi aged management, and a continuation of current timber harvest levels, among other things

The plan supported by the timber industry, which it calls B plus, is similar to the Forest Service's Alternative B, but has some additions It calls for a timber harvest of 137 million board feet each year, and a sustained ponderosa pine harvest of 100 million

The Forest Service's preferred plan, Alternative E-departure calls for a timber harvest of 123 million board feet for 10 years, and greatly reduced harvests thereafter, in order to achieve a sustained yield Current annual timber harvest levels are about 133 million board feet

Layser said that the forest is incapable of producing 137 million board feet per year to perpetuity "The timber industry will either have to bite the bullet now or bite it later " he said He added that E departure allows timber harvests at near current levels for 10 years to soften the blow of managing for sustained yield The industry, and the cities and counties that rely heavily on timber revenues would see little change for a decade After that, significant reductions in revenue would occur

Layser said that the forest is simply not growing fast enough to accommodate a cut of 137 million board feet a year "The average growth per year is really about 80 million board feet, he said "

Industry representatives such as Don Witte of Snow Mountain Pine Co in Hines cite the Forest Service's own benchmark figure of 144 million board feet The benchmark refers to the maximum amount of timber the Ochoco could produce if all its available acres were devoted primarily to timber harvest This would not mean harvesting wilderness areas or other currently exempt areas

Layser said that the Forest Service is required by federal law to manage the forest for multiple use, and to incorporate the state's goals for wildlife habitat Managing for sustained yield (cutting timber at the rate the forest is growing), is also a statutory requirement

In fact he said the Ochoco National Forest has been working for years on its plan because such a plan is required by the 1976 National Forest Management Act

He said that the final plan should be completed in about a year "We will try to keep the public informed about our progress," he said "It's not a process that just terminates with the close of the public comment period (Dec 20) "

He said that the planners will try to reconcile the many competing interests before the plan is issued "We would much rather publish the final with agreement on most issues than to issue it with controversies unresolved "

He said that the controversies may be resolved through consensus groups, private and public meetings, and informal communication among interested groups and the Forest Service

One issue Layser said may not be difficult to resolve is that of uneven aged management as a majority of writers were opposed to it Layser said

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Forest plans may change

By Stephanie Monson
Bulletin Staff Writer

Proposed plans that chart the future of the Deschutes and Ochoco national forests may have to be subjected to public scrutiny again because of timber industry objections

That means people will have another 90 day period — tentatively set to begin in a month — to comment on draft plans first released last year for the Central Oregon forests and five other forests in Oregon and Washington

However this time the plans will contain supplemental information requested by the Northwest Forest Resources Council said John Butruille deputy regional forester for the Northwest region

Larry Mullen chief planner for the Deschutes forest this morning said officials of the Deschutes forest will ask to be exempted from the new order Mullen said the draft plan for the Deschutes already contained information similar to what the timber industry requested

Officials with the Ochoco forest could not be reached for comment this morning

The latest twist in the almost 11 year old forest planning process which is mandated by the National Forest Management Act of 1976 stems from an appeal filed last fall by the forest resources council an association of timber industry groups

While the appeal has been dismissed by Forest Service Chief Max Peterson Peterson last week agreed that proposed forest plans should contain some of the information the council requested

That means the national forests in Oregon and Washington that have released plans will have to publish a supplement to the documents Butruille said The 12 forests that have not yet released plans will incorporate the data in their draft plans he said

The supplement will contain figures showing logging levels for the past several years and predict what harvest levels would be if current land management plans were followed Butruille said

Each draft forest plan examines a number of alternative strategies for long term management Butruille said the council maintained that the alternative that was supposed to show current harvest levels did not

The alternative instead outlined current land management plans that were rewritten to incorporate laws passed since they were written said Wallace Shiverdecker public affairs officer for the region

The alternatives as a result show lower logging levels and less land in the timber base Shiverdecker said

Butruille added that comments in this next 90 day period will not be restricted to the supplement All of the 1 000 plus pages in the documents will be open for comment

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Could mean longer review period

Supplemental forest info a possibility

A big question mark is hanging over the Ochoco National Forest and it will be at least two more weeks before the question is answered

That s because regional Forest Service officials are awaiting an evaluation to determine if Northwest forest offices need to provide supplemental information to draft environmental impact statements said Ochoco National Forest Supervisor Dave Rittersbacher

Should the evaluation team determine that supplements are needed public comment periods will be extended for another 90 days or so Rittersbacher said

The evaluation stems from two appeals filed with the forest service by the Northwest Forest Resource Council in April and August of 1986 The NFRC an association of timber industry groups did not approve of the way the current management plans were displayed and characterized in the Draft Environmental Impact Statements and contended the forest service should have provided more of an opportunity for the public to comment on the use and development of minimum management requirements (MMRs) Rittersbacher said

MMRs are factors necessary to maintain minimum viable populations of forest species such as the amount of old growth and snags necessary to sustain woodpeckers Rittersbacher explained

The NFRC in its appeals said the forest service did not comply with the National Environmental Policy Act (NEPA) as it failed to prepare an environmental impact statement for the MMRs and that the forest service failed to comply with the planning requirements of the National Forest Management Act Rittersbacher said

The NFRC 'wanted us to show what current direction would produce without the constraints of MMRs," Rittersbacher said explaining more timber would be available for harvest without the constraints of MMRs

Currently the forests are managed without MMR constraints however the NFMA of 1976 requires new forest management plans to incorporate MMRs Rittersbacher said

J Lamar Beasley deputy chief of the United States Department of Agriculture dismissed the NFRC s appeals

(See Forest Service,' page 2)

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★Forest service—

(continued from page 1)

on procedural grounds but said the appeals had some merits and would be considered

The forest service still feels the need to clarify how we categorize and display the current direction and alternative and feels that there should be some public input on the development effect and use of MMRs Rittersbacher said

Consequently a team has been developed to determine if supplemental documents should be prepared for national forests in Oregon and Washington that did not include MMR constraints under the present management plans Rittersbacher said The 12 forests that have not prepared their Draft Environmental Impact Statements will incorporate that information in their documents he said

The question now remains whether or not the Ochoco National Forest will have to prepare supplemental information to its Draft Environmental Impact Statement and extend the public comment period

We think we've met the requirements but that has to be determined by the regional team," Rittersbacher said

A supplemental document 'could help our efforts in determining what our final plan would be "

Rittersbacher said he would like to think this new turn of events will not delay the development of a forest manage-

Group reacts to forest issues

To the Editor

The long range plans for the 19 national forests in Oregon and Washington now being issued for public comment by the U S Forest Service are extremely important to the people of these two states, especially those who live and work in the scores of small, timber dependent communities These plans can be blueprints for economic stability by providing high levels of timber output while protecting wildlife watershed and recreational values However there is a gut level fear spreading through these communities that our way of life is instead threatened by major reductions in the wood harvests from national forests – 25 percent or more – that sustain logging and mill jobs and the local businesses they support

We ve heard a lot lately about setting aside huge acreages of forest for the spotted owl a bird that isn't even on the federal threatened or endangered species list We re going to hear even more about new minimum-management requirements that were adopted without any opportunity for public comment and they are already having a drastic effect on harvest levels

It s important for all of us to make our voices heard on the Forest Service planning process before it's too late We need to organize at the community level to do this A few such community organizations already exist, and we're tying ourselves together into an umbrella group called CPR — Citizens for Perpetual Resources Your community needs to be a part of this effort, and we'll be glad to share ideas with you You can contact us by writing to CPR P O Box 33 Florence, Oregon 97439

Sincerely
Del Phelps
President

Name of paper Central Oregonian
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Sent by Inez Cuellar
Stationed at Ochoco NF

—Editorial—

About a month ago, a *Times-Herald* editorial called for an extension of the public comment period for the proposed Ochoco National Forest plan because of slowly building public interest

It now appears that the comment period may be re-opened, but for different reasons

A forest industry group, in an appeal to the regional forester, said that the public should be given certain information about current management practices and about minimum management requirements

The appeals were rejected, but the regional forester has ordered all future plans to incorporate the kind of information asked for in the suit

It also appears that those seven forests that have already come out with their plans will have to issue suplements to them, and re- open public comment

Ochoco Forest Supervisor Dave Rittersbacher believes that his forest may not have to issue the supplement, because, he said, the information is already included in the plan

But it is still uncertain whether a supplement will be required, and a decision is due next week That decision will be made by a panel of forest planners meeting in Seattle They will decide whether all seven forests need to publish supplements, or whether each may be considered individually

If a new public comment period is opened for the Ochoco, it will provide an opportunity for people to give the kind of responses that the Forest Service is looking for — thoughtful and well-reasoned

During the initial comment period, most of the comments received were form letters, according to Ochoco Forest Planner Earl Layser Many of them supported the timber industry's proposal for continued high timber harvests Others were from snowmobile groups, and from environmentalist organizations

This new period would give people the chance to more fully outline their concerns and to give the reasons for their views

The plans for our local forests will, in a large measure determine the mix of economic value, aesthetic qualities, and recreational opportunities that provides the tenuous economic stability and the bountiful quality of life that we find in eastern Oregon That concerns every citizen in Harney County We encourage every citizen to take an interest in the matter

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Analysis of public comment on forest plans continues

You labored for hours over your letter to the Ochoco National Forest Supervisor You carefully expressed your concern for more wildlife habitat or a larger timber harvest. Or perhaps you wrote a five page *commentary on the need for* more livestock grazing land

Now you are wondering what has happened to your correspondence or signature on a petition or form letter Was it filed away? Was it read? Was it placed in the pile for consideration?

According to Ochoco National Forest officials all the above are true Every piece of correspondence about the Draft Environmental Impact Statement and future management of the forest is being read considered and filed.

Approximately 2 140 letters postcards and other types of commentary materials on the future management plan has been received officials said. Some range in length from a few short paragraphs to 80 pages whereas others are signed form letters some with a few additional comments

The process of coding these *comments is now underway* with more than 2 000 of them evaluated and sent to the computer room where they ll be entered into a sophisticated data base said Jann Bodie who is heading the coding process

Once all comments have been logged the data base can be utilized for a multitude of purposes she said

For example the regional forest supervisor can query the data base to examine issues affecting the 19 forests in the region such as recreation or the harvesting of ponderosa pine

Ochoco National Forest officials can pull up data relating to their specific area of expertise For example Bodie said rangeland managers can evaluate grazing issues and timber managers can evaluate comments on allowable cut or preferred percentage of old growth

Once the coding process is completed forest service officials will have access to comments by specific groups such as school teachers *conservation* groups or timber experts, Bodie said.

Preferred alternatives can also be queried as can new ideas not presented in forest service documents she said 'We also have a section for new issues for when people write in and say hey I feel you missed the boat completely ' "

Channeling the stack of correspondence into this data base is a task in itself and not an easy one

It may take one person all day to decipher a letter and prepare it for the coding process Bodie says Some comments such as the one by Gov Neil Goldschmidt, will take several days

Six people sit in a small conference room in the Federal Building with dozens of magic markers and highlighters at their fingertips In each hand is a comment on the management of the forest embellished with bright pink dull gold sky blue or grass green colors

Each color is directly cor

(See Comments page 2)

Photo by Tami Bowker

Comment analysis center

This group of Ochoco National Forest Service employees has *spent almost a month reading evaluating* and coding the 2 140 public comments on the future management of the forest Jan Lee pictured third from the left is directing the coding process which is nearing completion Once all the comments have been logged into a data base officials will evaluate the information pertinent to their field of expertise Bodie said

related to a code which sounds easy enough, but there s more to it, Bodie said

Members of the coding group 'read the letter all the way through and get a feel for what that person is trying to say They look for the main points,' she said 'The concern is to track a person s thought, their total concern not a vote'

In some cases an individual has signed a form letter, written a personal letter and sent it in a modified form letter When this happens the coders take all three responses and treat them as one in order to track that person s thought, Bodie said

Peripheral stuff,' such as how long the person has lived in Prineville and other irrelevant factors are not considered in the coding process she said

Instead what is logged is the issue such as wilderness recreation, or roadless areas whether the author is affiliated with an organization or not the type of response form it is such as a postcard individual letter modified form letter or an industry-associated form letter

Modified form letters "are treated differently because the person took the time to extend the thought, Bodie said

Coders take into account the number of signatures on a petition and always log the code area for each piece of correspondence so data can be *queried by area she said.*

The coding process is very time-consuming as each comment must be treated as the one before it, she said We have to keep it consistent. I want to make sure the same comments are going to the same place

Comments are weighed equally Bodie stressed, and the process does not put weight to one or the other

'It s a pretty cold and sterile process at this point she added

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Stationed at Ochoco N F

Forest Officers
You are requested to clip any important newspaper article concerning forestry or the work of the Forest Service. Attach this gummed slip to the article and after filling in the blanks, forward it to the Regional Forester in accordance with Regional instructions.
FS 1600-9 (12/76)
GPO 1986 O 524 560

Local groups needed

To the editor

The long range plans for the 19 *national forests in Oregon and* Washington now being issued for public comment by the U S Forest Service are extremely important to the people of these two states, especially to those who live and work in the scores of small timber-dependent communities

These plans can be blueprints for economic stability by providing high levels of timber output while protecting wildlife, watershed, and recreational values

However, there is a gut level fear spreading through these communities that our way of life is instead threatened by major reductions in the wood harvests *from national forests — 25 per* cent or more — that sustain logging and mill jobs and the local businesses they support

We've heard a lot lately about setting aside huge areas of forest for the spotted owl, a bird that isn t even on the federal threatened or endangered species list

We're going to hear even more about new minimum management requirements that were adopted without any opportunity for public comment They are already having a drastic effect on timber harvest levels

It s important for all of us to make our voices heard in the Forest Service planning process *before it s too late We need to* organize at the community level to do this A few such community organizations already exist, and we're tying ourselves together into an umbrella group called CPR, Citizens for Perpetual Resources Your community needs to be a part of this effort and we'll be glad to share ideas with you You can contact us by writing to CPR, Box 13 Florence, Ore 97439

Del Phelps
President, CPR

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Citizen input aids legislator

To the Editor

The nuts and bolts of what happens in the legislature is committee work It is here that the final form of legislation is hammered out, and in order for this process to run smoothly, we rely on the testimony of those from both the public and private sectors We in the Joint Committee on Trade & Economic Development enjoyed an interesting and enlightening meeting Wed , Jan 21

John Shelk, President of Ochoco Lumber Company in Prineville and Malheur Lumber Company in John Day gave testimony before the committee on the forest industry's past and future

John addressed the Forest Service's Ochoco Plan which includes a 20 percent projected decrease in the allowable cut Aspects of this plan are complicated and John did a great job of discussing its merits and problems

Our forests, in large part are the economic base of District 30 The only way we can make informed, accurate decisions is by those involved in the industry or any industry, presenting their side of the story I welcome and encourage, business people to be involved with the decisions we make in Salem Once again thank you to John Shelk

Sincerely yours
Sen Gene Timms
Burns

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Ochoco Forest may issue supplement to forest plan

By JIM DONOVAN
The Times Herald

Seven Northwest national forests may have to issue supplements to their proposed forest plans and re open public comment on them pending a decision by the regional forester's office

Ochoco National Forest Supervisor Dave Rittersbacher said that the Ochoco may not be required to issue a supplement

An appeal brought by the Northwest Forest Resources Council alleged that the draft environmental impact statements issued by seven northwest forests understated the current timber harvests in their "current direction alternatives

Each forest plan outlines many alternatives for managing the forest One of those called the 'no action' alternative must show the results of taking no action and continuing current management practices

The NFRC said that in many plans, the public was not made aware that the current direction alternative incorporated the requirements of a 1976 law not now being fully implemented

Current plans would show that we have more timber available than shown in the current direction plan with these requirements incorporated

Another contention of the NFRC was that those incorporated requirements, called minimum management requirements, were adopted without the opportunity for public comment

The group felt that the public should have the information about the current direction alternatives and the MMRs made more understandable in the drafts

According to Rittersbacher, the appeals were rejected by the regional forester on procedural grounds But, he said, 'it was felt that there was some merit to the appellants' claims, and that they needed to be looked at "

The NFRC and Sen Mark Hatfield have asked the secretary of agriculture to review the rejection of the appeals That decision is due in about a week

Rittersbacher said that those forests that have aleady issued plans or draft environmental impact statements may have to publish supplements Those that have not will have to incorporate the information in their future documents

He said also, "I believe that the information is there, (in the Ochoco's draft environmental impact statement)" He said that it may be debatable "whether it s in the appropriate format or location to be understandable "

Rittersbacher added 'I think we're in good shape with Alternative A It substantially meets the requirements the (regional) office has come out with '

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Comments Received on the Ochoco National Forest Management Plan

Numbers serve as general indicators of the intensity of public interest on the various issues

ISSUE	TOTAL COMMENTS
Timber (total)	4875
Timber Harvest Level	1143
Ponderosa Pine Mgmt	1046
Clearcutting	1034
Big Game Habitat	3533
Roadless Areas	2835
Lookout Mountain	1767
Socioeconomic	1730
Multiple Use	1404
Fuelwood	1147
Old Growth	1078
Roads	1000
Winter Sports	742
Livestock Grazing	651

Source U S Forest Service

Ochoco plan draws comments

By Stephanie Monson
Bulletin Staff Writer

PRINEVILLE — Ochoco National Forest officials heard it all when sifting through comments about the future of the forest

But the timber harvest and Lookout Mountain roadless area received the highest volume of comments.

Big game habitat firewood and other roadless areas were among issues also on the minds of many of those who sent comments to the U S Forest Service

The draft land management plan for the forest released last fall drew approximately 2 000 letters that contained about 25 000 individual comments

The largest volume of mail came from people supporting a timber industry plan for managing the Ochoco forest and Crooked River National Grassland.

A total of 922 form letters were sent in support of the industry backed Alternative B plus which would increase the annual harvest of ponderosa pine

However Ochoco public affairs officer Joe Meade stressed that the U S Forest Service was not taking a vote count during the comment period

Timber was the general issue that got the most attention with a total of 4 875 comments.

Many people said the Forest Service should stop clearcutting said Jill Lowen a data entry person in the forest s planning office who had the job of reading each of the 2 000 letters

The timber harvest also was on many hunters minds Several people wrote saying that more trees should be left to give cover to the elk Lowen said

Other hunters also asked that the 16 000-acre Lookout Mountain roadless area remain closed at least during the hunting season

However snowmobilers asked that they continue to be allowed to drive their vehicles through the area and some writers asked that the road to the top of Lookout Mountain be reopened

Those who commented about firewood cutting said the annual harvest level should remain the same or increase Lowen added

The comments will be used to prepare a final land management plan which should be released in about a year The plan will govern the forest for the next 10 to 15 years

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To show current direction

Forests to work up new alternatives

Ochoco National Forest planners are working on a supplement and a mock up display to provide information not included in the proposed forest plan issued last year, according to Burns District Ranger Fred Harnisch

The Northwest Forest Resources Council, a group that champions timber industry concerns, filed two appeals with the Secretary of Agriculture concerning Minimum Management Requirements, or MMR's

MMR's are guidelines that set a minimum level of resource protection below which forest management may not fall Some MMR's were developed nationally, others on a more local basis Those with which the NWFRC is most concerned deal with wildlife habitat, clearcut dispersal, water quality, and riparian areas

The NWFRC averred that the forest plan alternatives that dealt with current practices were inaccurate because they incorporated MMR's It asked that existing management practices be projected into the future, rather than projecting what they would be if MMR's were incorporated

The NWFRC also asked that different levels of MMR's be developed The Forest Service countered that there could be only one minimum level of resource protection legally and scientifically justifiable

Though the Agriculture Secretary denied both appeals he directed the Forest Service to address the concerns raised in them Therefore, forests that have not yet issued their plans will incorporate a current direction alternative that will reflect current practices projected into the future along with an alternative that shows current practices modified by MMR's

Forests that have already issued their plans will issue supplements explaining the current direction without MMR's

In addition, all forests will produce a display called a mock up by the Forest Service, that will show how variations in MMR's will affect timber harvests, wildlife, water quality, and old growth areas, and other resources The Ochoco's mock up will be on display at the Hines office in a few months, Harnisch said The supplement should be finished at the same time, he added

A public comment period will be allowed only on the supplement, Harnisch said Comments will not be accepted on elements of the plan that have already come under public comment

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Public needs voice in management

By GOV NEIL GOLDSCHMIDT

Oregonians can and must have a decisive voice in determining how federal timber lands in the state are managed These timber resources are too important to the state's economic well being to be left to the federal government alone

Our state is the top lumber producer in the Unites States, we produce 24 percent of all softwood lumber in the country We are first in plywood production and 20 percent of the country's total soft wood sawtimber inventory is here

More importantly to Oregonians about 37 percent of all our manufacturing jobs are in the wood and paper industries That doesn't account for the fact that each timber industry job supports about two others

Many of these jobs are in the small towns and rural areas that have not yet benefitted from the diversification of Oregon's economy

Moreover, more than half of Oregon is federally owned and more than half the logs processed in Oregon come from federally owned lands

That's the reason we are becoming more involved in Forest Service and BLM forest planning And that's why some of you may have seen Norm Johnson and other representatives from my office in John Day, Grants Pass, Gold Beach and other towns and communities around the state

We are in the process of reviewing the federal forest management plans that are due out for each National Forest and many of the BLM lands in the state And we want to know what local residents see as their vital interests

My goal is to present a coordinated state response to each Forest Service and BLM plan

During the campaign I said that it is critical to the state's economy to maintain a healthy forest products industry, while at the same time maintaining our high environmental standards That s still the case and that s why we re working hard to develop plans that are both economically and environmentally sound

It bears repeating that Oregonians care passionately about their federal forests and the way those forests affect our future and not just over the short run

Oregonians care about a steady supply of logs to our mills sustained yields, well managed fisheries and high quality wilderness recreation areas And we care about long run stability in our timber based communities That's why we're finally taking ourselves heard in the federal timber management process

FOREST SERVICE

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Five Central Oregon rivers included in Hatfield proposal

Staff and wire reports

PORTLAND — Five Central Oregon rivers are included in legislation announced Friday by Sen Mark Hatfield to designate or study more than two dozen Oregon rivers for protection under the Wild and Scenic River Act

Hatfield, R Ore, said in Washington, D C, he intends to introduce legislation in January to designate or designate for study at least 27 rivers in Oregon as wild, scenic or recreational under the Wild and Scenic River Act

The legislation, which will include sections of the Deschutes, Metolius, John Day, Williamson and North Fork Crooked rivers, will be "the largest river protection act in the history of the lower 48 states," said Bob Doppeld of the Oregon Rivers Council

Oregon Democratic Reps Peter DeFazio and Les AuCoin announced Friday they plan to introduce similar legislation in the House

The Senate bill will include those rivers the U S Forest Service has indicated meet the minimum criteria for wild, scenic or recreational status in draft forest plans being released for the 13 national forests in Oregon, Hatfield said

My interest and love of Oregon s rivers runs as long and deep as the rivers themselves," Hatfield said 'Over the years, the inclination to dam, divert or develop these rivers has increased enormously While some of the needs leading to these efforts are real and understandable, others are not."

Andy Kerr of the Oregon Natural Resouces Council applauded the proposal, but said it doesn t protect as many Oregon rivers as his group would like

"Conservationists are extremely pleased in Senator Hatfield's interest in Oregon's free-flowing rivers," Kerr said "But the list that Senator Hatfield released is simply a list of those rivers the Forest Service has looked at The Forest Service owns only about 25 percent of the forest lands in Oregon, so they looked at only roughly 25 percent of the rivers"

The rivers to be included in Hatfield's bill are the Deschutes and Metolius in Deschutes National Forest, the Sycan, North Fork Sprague and Chewaugan in Fremont National Forest, the Clackamas, Roaring, Salmon and White in Mount Hood National Forest, the North Fork Crooked River Deschutes and Crooked Area in Ochoco National Forest, the Rogue in Rogue River National Forest, the North Fork Chetco in Siskiyou National Forest, and the Alsea, Nestucca and Siuslaw in Siuslaw National Forest

They also include the Grande Ronde, Tucannon North Fork John Day and Wenaha in Umatilla National Forest, the North Umpqua in Umpqua National Forest, the Lostine North Powder, Grande Ronde, Eagle Creek, Joseph Creek and North Fork John Day in Wallowa Whitman National Forest, the Wilhamson and Sycan in Winema National Forest, and the McKenzie in Willamette National Forest

"One of the most glaring omissions is the Klamath River, which includes the proposed Salt Caves dam," Kerr said Other rivers we feel should be on the list are the Donner und Blitzen in southeastern Oregon, the Nehalem River, North Santiam and Smith

' We're also concerned that Senator Hatfield avoided dam sites on the McKenzie and Nestucca rivers," said James Monteith of the Oregon Natural Resources Council "While portions of the Nestucca and McKenzie are on the list, the list does not include dam sites on the rivers — the Walker Creek dam on a Nestucca tributary and the Strupe Dam on the south fork of the McKenzie River

Nationally, 74 rivers have received wild, scenic or recreational status, including the Snake, Rogue Illinois and Owyhee in Oregon The North Umpqua River was designated a study river ' for recreational status in 1984 and 11 Oregon rivers are protected as scenic waterways by the state

The proposed legislation likely will bolster the efforts of a Central Oregon based group seeking to have sections of 11 rivers in Oregon included in the state Scenic Waterway Program Supporters are gathering signatures to put the proposal on the ballot

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Ochoco project tops list

A $7 million expansion of the Ochoco Lumber Co in Prineville topped the list of new industrial projects announced in Central Oregon during the third quarter of 1987

Construction of a new small log sawmill at the Ochoco Lumber Co began in September and is scheduled to be completed in April or May of next year, said John Shelk, managing general partner The addition to the mill is expected to create about 20 new jobs

Shelk said the new small log mill will allow the company to compete successfully with other mills in the region that process small logs

'We felt the definite need of automating the handling of small logs," said Shelk "This will bring us much more in line with some of the newer, more automated mills in the region as far as processing small logs"

In addition to the Ochoco Lumber project, Pine Products Corp announced a $5 million co-generation plant for Prineville, and the Precision Lumber Co revealed plans to build a new wood remanufacturing plant at a cost of $780,000

The three projects, with a total value of $12 8 million, were the only planned investments announced in Central Oregon from July through September, the Oregon Economic Development Department said

More than $386 2 million in planned investments were reported in Oregon during the third quarter said Richard Reiten director of the department That brings the year-to-date total to $950 million

The third quarter s total announced investment figure is about 96 percent of the previous quarter s total The planned investments for this third quarter amount to about three times the amount logged in the third quarter of 1986

Permanent job losses seen in forest industry

Bend Bulletin 11/30/87

BOISE Idaho (UPI) — Most Idaho timber jobs lost in the 1980 1982 recession were replaced by machines and are gone forever an article in Boise State University s business journal says

The article cited statistics showing that while lumber production has largely bounced back from the recession employment levels have not.

When lumber production peaks out in 1987 the industry will likely employ no more than 16 000 workers the journal said "That's at least 2 500 less than in 1979 '

The journal said the popular perception has been that the industry is and continues to be in recession

But the cause of job loss in the state s timber industry is not high wages a restricted government timber supply the Canadians or the recession The fact is that the process of modernization has changed the industry and permanently reduced employment, the story said

Article author Andy Brunelle, who has a master s degree in public affairs from the University of Oregon and studied the effects of the changing timber industry on the Northwest, said mills built in the future will have the same productive capacity but will employ about 40 percent fewer workers