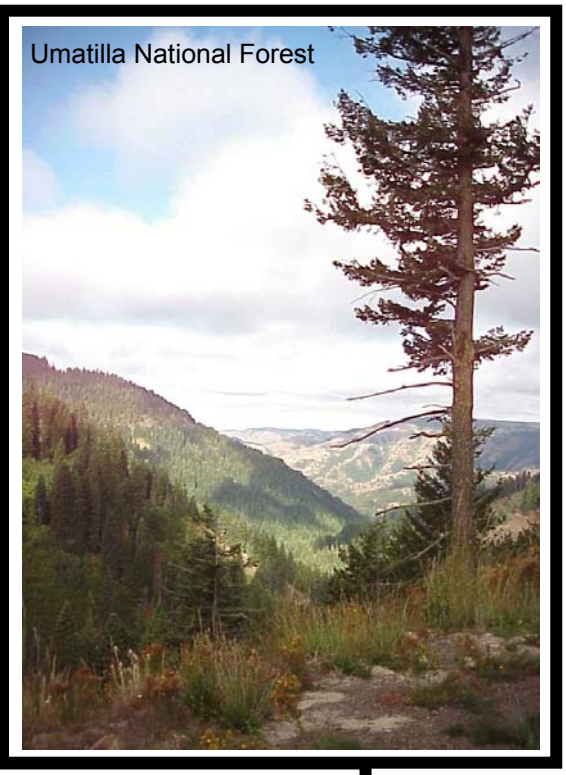
EXECUTIVE SUMMARY

2001
Forest Plan Monitoring and Evaluation Report

for the
Blue Mountain Forests of Eastern Oregon



Introduction

Monitoring and evaluation results for the National Forests of the Blue Mountains (Malheur, Umatilla, and Wallowa-Whitman) for fiscal year 2001 are documented in the 2001 Monitoring and Evaluation Report. This document contains a wealth of information on Forest conditions, on how well the Forests are implementing the Forest Plans, and if Forest Plan desired conditions are being achieved. Unfortunately this amount of information requires a large number of pages, which makes it difficult to quickly get a sense of the overall condition of the Forests.

This summary document is a synthesis of the findings by resource area. It is intended to provide an overview of the 2001 report. More detailed discussions of these findings can be found in the 2001 report itself.

NFMA Five-Year Review

The National Forest Management Act (NFMA), 36 CFR 219.10(g), requires that

> "The Forest Supervisor shall review the conditions on the land covered by the plan at least every 5 years to determine whether conditions or demands of the public have changed significantly."

The three Forest Plans for the Blue Mountains National Forests were signed in 1990. Initial five-year reviews were conducted in the mid 1990's. These reviews occurred at the same time the Interior Columbia Basin Ecosystem Management Project (ICBEMP) was on going. Early results from the ICBEMP, as well as reviews of monitoring reports and changes in National Forest management direction, suggested that changes in the Forest Plans were needed, but significant amendments to the Forest Plans were deferred until completion of the ICBEMP process. Recently a decision was made to complete the ICBEMP process through use of an implementation strategy, by which the science base and knowledge gained from the ICBEMP effort would be utilized in planning efforts associated with Plan revisions.

A second five-year review was conducted in association with the preparation of the fiscal year 2001 Forest Plan Monitoring and Evaluation Report. This review generally covered the years 1996 through 2001. Results of this review are contained in the 2001 annual report, and are summarized in this document. Several areas of change in Forest Plan direction were indicated by this recent review, and these areas will be addressed during the upcoming Forest Plan revision effort, scheduled to begin in the fall of 2004.

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RESOURCE SUMMARIES **PAGE**

Soil Resource

Results:

- Increasing use of pre-activity condition surveys.
- All Forests report some level of legacy disturbance, occasionally exceeding Forest Plan standards.
- BMPs (Best Management Practices) identified in NEPA documents for skidtrail location and width were generally followed, however not so for spacing.
- High percentage of sampled activity areas met Forest Plan standards.
- Over-snow harvesting greatly minimized negative impacts to soil.
- Cut-to-length (CTL) harvest systems reduced compaction and displacement.
- Subsoiling enhanced the soil recovery process.

Discussion:

Implementation of BMPs identified in planning/analysis documents were effective in minimizing negative impacts to soil, and in achieving soil objectives. Skidtrail spacing identified in NEPA documents, which were based on standard ground based harvest systems, were generally not achievable with CTL harvest systems. Spacing requirements should be reviewed and adjusted when use of CTL systems are probable or required.

Synopsis:

Adjustments in harvest and site preparation methods, and fuel treatments continue to result in a reduction in adverse effects on soil resources. Forest Plan standards and guidelines remain valid, but the measurement methods need updating. More readily measurable means to access soil related impacts are needed.

Action:

- Accelerate completion of the Ecological Unit Inventory (needed for project and planning formulation).
- Finalize a Tri-Forest soil impact sampling protocol to enable consistent completion of existing condition soil assessment.

Air Quality

Results:

- State smoke management reporting obligations were met.
- Minor, short-term smoke intrusions occurred in Baker City and La Grande.

Discussion:

Air quality on the Forests is primarily affected by emissions from fuel treatments. Compared to Forest Plan projections there were fewer activity fuel acres treated (Malheur 54%, Umatilla 18%, Wallowa-Whitman 33% [combined with natural fuel treatments]), and more natural fuel acres treated (Malheur 981%, Umatilla 167%). Activity fuel treatments (such as associated with harvest operations) often consume relatively greater amounts of fuel per acre than natural fuel treatments, and results in greater quantities of emissions.

Synopsis:

The declining trend in particulate production, which began in the early 1990's continued in FY2001. This is primarily related to the decrease in treatment acres of activity fuels as fewer acres are harvested. There has been a dramatic increase in the treatment acres of natural fuels, but the emissions associated with this treatment are generally less on a per acre basis than with activity fuels.

Action:

- Maintain involvement in potential update of Oregon Smoke Management Plan.
- Adjust Forest Plan projections for acreages of activity and natural fuel treatments.

Water Resource

Results:

- Forest Plan standards and watershed BMPs for protection of water resources were followed.
- Stream buffers met standards in the majority of sampled streams.
- No evaluated RHCAs showed evidence of sediment transport or erosion within RHCAs.
- Changes were recommended in procedures for placement of large woody material in streams.
- State temperature standards were not met at many monitoring stations.
- Road restoration practices were generally implemented and effective.
- Road drainage that does not meet Forest Plan standards and guidelines, and BMPs, is a Forest-wide problem on the Wallowa-Whitman.
- Watershed improvement accomplishments were below Forest Plan projections (percent of projected acres – Malheur 44%, Umatilla 25%, Wallowa-Whitman 39%).

Discussion:

In general, water quality on the Forests was good to excellent, with temperature being the most widespread impairment. Management related changes in water yield and low flow are difficult to detect beyond the catchment basin size, there was no statistically significant difference in annual water yield from a Umatilla River study. Documentation of stream categories during project design and layout is essential to ensure reliable post-project monitoring. Sediment deposition is of greatest concern in granitic watersheds, landslide-prone terrain, and lower gradient stream types (mainstem valleys and mountain meadows). Low levels of exposed soil in sampled activity units was primarily due to the use of CTL harvest systems. There is a high spatial and temporal variability in sediment production, transport, and deposition, which makes it difficult to measure.

Synopsis:

The Umatilla Barometer watershed study had important findings related to timber harvest effects on streamflow, however the study focused primarily on evenage management techniques. There wasn't a consideration of unevenage management, thinning, and use of prescribed fire. The analysis of above/below and before/after activity monitoring data would be more likely to show trends.

Action:

- Continue to develop water quality management plans to address water quality impairments, specifically temperature.
- Emphasize reporting project level monitoring results.
- Need to evaluate effectiveness of past programs to concentrate and settle mine outflow in settling ponds.
- Implement changes in large woody material placement along channels, including not cutting dead standing trees that will reach the channel and provide wildlife habitat, or trees providing channel stability.

Fire

Results:

- Natural ignitions within wilderness areas were suppressed.
- The number of wildland fire acres was within the range of average annual acres burned.

Discussion:

Natural ignitions in wilderness areas were not allowed to play their natural ecological role. The National Fire Plan supported level of preparedness will result in an increase in resources available for fire suppression.

Synopsis:

The fire program is within established Forest Plan thresholds. An aggressive fuels management program will aid in reducing fuel loading, and result in reducing the amount of wildland fire acres burned "outside of the normal disturbance regime".

Action:

- Update Forest Plan "Fire Managed for Resource Benefits Plan".

Aquatics

Results:

- Forest Plan standards and guidelines for inland and anadromous riparian areas were applied.
- Mid-Columbia steelhead redd counts continue slight rebound (Umatilla).
- John Day River Basin spring Chinook redd counts up overall (Umatilla).
- Bull trout redd counts up overall (Umatilla).

Discussion:

Forest Plan (Umatilla) MIS included summer steelhead trout and resident redband trout. Now need to evaluate all anadromous fish (included on Regional Foresters sensitive species list), with an emphasis on ESA listed species.

Synopsis:

Snake River and Mid-Columbia steelhead trout on the Umatilla show declining population trend. Recent improvement in redd survey results need to be sustained to reverse the trend. Spring Chinook redd counts are slightly up. Bull trout redd counts seem to indicate an improving trend, however more time is needed to determine the population trend. Forest Plan revision will provide an opportunity to review fish population viability on the Forests in relation to ESA recovery efforts.

Action:

- Stronger monitoring and reporting element needed for completed projects.
- Protect habitat in best condition, work to restore habitat that supports fish populations at lower levels due to poorer habitat conditions.

Wildlife

Results:

- Where applied, Forests are meeting Forest Plan guidelines for HEI.
- Road densities are not meeting Forest Plan standards (Wallowa-Whitman).

- Many dedicated old growth areas are not meeting the intent outlined in the Forest Plan.
- Of old growth stands surveyed on the Wallowa-Whitman, only 20% met Forest Plan standards.
- Results of timber sale surveys: on the Umatilla all sales met or exceeded snag and down wood standards, on the Wallowa-Whitman 52% of acres surveyed met snag density requirements.
- Percent of Forest Plan projected wildlife habitat restored/enhanced by Forest: Malheur 111%, Umatilla 14%, and Wallowa-Whitman 250%.

Discussion:

Some of the relationships used in the HEI model, such as between cover spacing, cover quality, and open road densities, do not appear to be valid. Research indicates there is a stronger influence of open roads and habitat selection relative to deer and elk habitat use. The newest research also indicates that more acres of old growth are needed than currently required by the Forest Plans. Declines in old growth can be attributed to past harvest of large trees, and widespread disturbance agents (fire, insects and disease, wind). There are concerns about the quality of snags and down wood left post-harvest, that they are mostly "soft" wood. Firewood cutting is causing a significant reduction in snags left post-sale.

Synopsis:

Access and Travel Management policies which have lowered open road densities have benefited big game. During Forest Plan revision a new big game habitat model or modifications to the existing model should be completed to reflect recent research findings. Also during revision, a review and adjustment to standards and guidelines for old growth and late old structure, which considers new science, should be completed. This review should consider consistency issues with historic range of variability (HRV) and structure based management strategies. There are ongoing concerns regarding snags and down wood related to prescribed burning, hard versus soft material retention, and loss of snags from fuelwood harvest.

Action:

- Emphasize need to meet open road densities during and after project activity.
- Restoration and protection of old growth habitat is needed.
- Develop a common snag policy, considering recent science.
- Complete additional monitoring of snags and down wood relative to prescribed burning.

Species of Concern

Results:

- Management of habitat for aquatic PETS (Proposed, Endangered, Threatened, Sensitive) species is meeting Forest Plan standards on the Malheur.
- PETS species and habitat condition on the Malheur is stable with an upward trend.
- A 30% increase in roost site use was noted on the Malheur.
- There were no lynx sightings or detections on the Malheur and Umatilla.

Discussion:

Generally aquatic habitat condition is improving on the Malheur with an increased awareness, and as effective protection measures and design criteria are implemented on field projects. On the Umatilla, management activities did not adversely affect threatened and endangered species or their habitat. Without current habitat and population monitoring of MIS (management indicator species) and sensitive species, existing Forest Plan old growth areas are assumed to be undersized based on current research.

Synopsis:

Bald eagles have been consistently using the North Fork John Day River, Camas Creek, and the Ukiah valley each winter. Production from the Dry Creek bald eagle nest site on the Umatilla has been relatively good. No lynx were detected after three years of surveying on the North Fork John Day Ranger District, Umatilla, apparently there is no resident population. There have been no documented peregrine falcon eyries on the Umatilla.

Action:

- Survey methods need to be developed to identify and protect migratory birds and nesting habitat.
- Funding needs to be increased for monitoring of MIS and sensitive species habitat and populations.

Vegetation Management

Natural Fuel

Results:

- Level of natural fuel treatment on the Malheur was 981% of the Forest Plan projection.
- Level of natural fuel treatment on the Umatilla was 167% of the Forest Plan projection.

Discussion:

Natural fuels are being treated at an average level greater than envisioned in the Forest Plans.

Synopsis:

The level of annual natural fuel treatments within the Blue Mountains province for the last five years has averaged 450% of Forest Plan projections. Future levels of natural fuels treatments are uncertain based on the perceived need for ecosystem management needs being balanced with the need to follow air quality standards.

Action:

- Levels of natural fuel acreages should be tied to management programs identified in the revised Forest Plans.

Insects and Disease

Results:

- Current population levels of most key insects are relatively low.
- Douglas-fir tussock moth defoliation and tree mortality occurred on the south end of the Heppner RD, Umatilla.

Discussion:

Critical resource areas treated in 2000 with virus insecticide treatments showed a rapid decline in larval populations. Bark beetle pheromone treatments were effective in preventing damage to high resource value stands.

Synopsis:

Most insect populations have oscillated within their natural cycles over the past six years. The largest population increases occurred with tussock moth, Douglas-fir beetle, and larch

casebearer. Some management policies may allow future pest increases, for example increases in shade tolerant species associated with unevenage management.

Action:

- Monitor areas of Douglas-fir tussock moth defoliation for Douglas-fir beetles.
- Monitor conditions, and modify management directions and resource policies if maintenance of artificial stand conditions to support current resource needs leads to an overall decline in stand health and vigor.
- Continue early warning adult insect trapping and larvae sampling when warranted.
- Establish long-term insect monitoring programs in prescribed fire areas (where large diameter trees are involved).

Timber Harvest

Results:

- Harvest volumes offered and percent of Forest Plan projections are as follows: Malheur 15 MMBF (7%), Umatilla 17 MMBF (11%), and Wallowa-Whitman 32 MMBF (16%).
- Volumes offered generally met outputs anticipated based on program funding levels.
- Silvicultural treatments continued the shift away from even-aged regeneration cutting. Percent of even-aged Forest Plan projections were: Malheur 2%, Umatilla 0%, and Wallowa-Whitman 1%.
- Commercial thinning treatment acreage generally exceeded Forest Plan projections.

Discussion:

Lower volumes of harvest were in part due to a shift from intensive, even-aged management prescriptions to commercial thinning and salvage/sanitation prescriptions; and to harvest treatments no longer being planned in some forested areas originally classified as capable, available, and suitable for timber management in order to address concerns for endangered species habitat and water quality. Harvest volumes and acreages are well below annual thresholds of variability established in the Forest Plans.

Synopsis:

The calculations for Forest Plan sale quantities are based on assumptions which are no longer valid. The five-year averages for harvest are substantially below the Forest Plan thresholds of variability.

Action:

- Adjust Forest Plan sale quantity levels during revision.
- Evaluate shift from intensive, even-aged management to commercial thinning in Forest Plan revision.

Reforestation

Results:

- Artificial regeneration on the Malheur was above Forest Plan estimated level.
- Artificial regeneration on the Umatilla and Wallowa-Whitman were below Forest Plan thresholds of variability.
- Forests are meeting the five-year NFMA reforestation requirement.
- First year survival was consistent with historic averages.

Discussion:

High levels of artificial regeneration on the Malheur are due to wildfires. Artificial regeneration levels on the other two Forests being lower than Forest Plan estimates is tied to reduced harvest levels. Additional drought-induced mortality to this year's artificial regeneration is anticipated.

Synopsis:

On the Umatilla, more natural regeneration (at levels above Forest Plan estimates) has occurred than artificial regeneration (levels below Forest Plan estimates). There have been several years of high artificial regeneration due to western spruce budworm and fires. On the Wallowa-Whitman, both natural and artificial regeneration levels have been well below Forest Plan estimates. The Malheur has been exceeding Forest Plan estimates for regeneration, primarily due to wildfires.

Action:

- Re-examine Forest Plan assumptions related to anticipated acres of reforestation. Lower levels of regeneration harvest have resulted in a downward trend in artificial regeneration.

Stand Improvement

Results:

- Noncommercial thinning accomplishments as compared to Forest Plan projections were: Malheur 54%, Umatilla 87%, and Wallowa-Whitman 136%.

Discussion:

Forests are accumulating a backlog of acres needing stocking level control treatments. The level of noncommercial thinning on the Malheur is below Forest Plan projections due to funding levels for this program.

Synopsis:

Forest Plans did not anticipate the use of stocking control to achieve certain resource objectives; such as reduction of wildfire risk, development/protection of fish and wildlife habitat, and promotion of late-successional characteristics for biological diversity. Forest Plan projections seriously underestimated the need for noncommercial thinning and release.

Action:

- Re-evaluate the need for stocking level control during Forest Plan revision.

Noxious Weeds

Results:

- On the Umatilla, 27,530 gross acres of noxious weeds have been inventoried (1,565 new in 2001).
- A risk assessment on the Umatilla showed over half (24) the watersheds on the Forest have a high risk of invasion and spread.
- Highest priority for treatment on the Umatilla is on the north end districts.
- Houndstonque has been found to be more persistent under treatment than indicated in the literature.

Discussion:

Only a small portion of existing weed infestations have been analyzed and cleared for treatment. Species with the highest priority for treatment include yellow starthistle, sulfur

cinquefoil, and knapweeds. Control and containment of weed spread is problematic for some species that are not cleared for chemical treatment.

Synopsis:

Herbicide treatments are anticipated to increase with implementation of a more intensive control program.

Action:

- Continue to build an aggressive prevention, inventory, treatment, and monitoring program.
- Continue work on the Regional EIS for treatment of newly inventoried and high-risk sites.

Recreation

Results:

- Most OHV use occurs during hunting seasons.
- On the Malheur, 41% of trails were maintained (maintenance was low on mountain bike and winter sport trails).
- Overall visitors were satisfied with recreational opportunities on the Wallowa-Whitman.

Discussion:

On the Malheur OHV use was allowed on several trails, but these trails were generally not constructed to meet current OHV standards. Uncontrolled cross-country use of OHVs is currently permitted on some portions of the Malheur and may be impacting riparian areas and aquatic habitat. Maintenance of trails is constrained by time and funding limitations. The public has requested updated information regarding the Access and Travel Management Plan on the Wallowa-Whitman.

Synopsis:

OHV use is continuing to increase. There has been a stable trend on the Wallowa-Whitman of visitor satisfaction with recreational opportunities.

Action:

- Continue development of a Tri-Forest OHV strategy.
- Use preliminary National Visitor Use Monitoring (NVUM) results to improve recreation strategy.

Roads

Results:

- On the Wallowa-Whitman, 50.6 miles of road were constructed/reconstructed (1.1 miles construction, 49.5 miles reconstructed). This was 20% of the Forest Plan projection.
- Also on the Wallowa-Whitman, 45 miles of road were decommissioned.

Discussion:

The Upper Joseph watershed on the Wallowa-Whitman has the largest problem with road densities. Overall on the Forest, approximately 675 to 700 miles of road remain to be closed to meet Forest Plan road density guidelines. Road closure devices were generally effective if the proper device was used and properly installed.

Synopsis:

On the Wallowa-Whitman, the miles of total road have declined by 4%, and the miles of open roads have declined by 14% since 1996.

Action:

- The potential to reduce road densities should be evaluated as part of project level decisions.

Minerals

Results:

- Inspected operations on the Malheur and Umatilla met Forest Plan standards and guidelines.
- On the Wallowa-Whitman, 80% of the plans approved since 1994 meet Forest Plan standards and guidelines.
- Level of activity by Forest is: Malheur 120 claims, Umatilla 25 active operations on 75 claims, and Wallowa-Whitman 300 active claims.
- The average disturbance per claim on the Umatilla is 0.05 acres.

Discussion:

Plans of Operation on the Wallowa-Whitman not meeting the Forest Plan standards require additional mitigations. Only a few of these claims have active operations. Modifications to these plans are on going. There are abandoned claims which require rehabilitation when funds become available. Some illegal mining activity occurred on the Umatilla relative to suction dredging without the appropriate approvals.

Synopsis:

The level of activity has been steady for the past few years. Monitoring effectiveness of rehabilitation efforts has been hampered because operations often never reach an end-point. New operators often take over from current operators and resume mining.

Action:

- Coordinate mining administration activities among the three Forests for consistency.

Special Management Areas

Results:

- The free-flowing characteristics of Wild and Scenic Rivers were protected consistent with Forest Plan standards and guidelines.
- No activities occurred in Wild and Scenic River areas which resulted in adverse impacts.
- Wilderness standards were met on the Umatilla.
- On the Wallowa-Whitman, regional haze was the most significant impact on the Eagle Cap and Hells Canyon wilderness areas.

Discussion:

Enhancement projects within wilderness areas on the Wallowa-Whitman, such as native plantings, fencing, and campsite relocation, were completed. Air quality monitoring is on-going in the Eagle Cap and Hells Canyon wilderness areas. Some minor problems with non-conforming uses occurred, associated with mountain bikes, ATVs, and snowmobile use.

Synopsis:

Free-flowing conditions and water quality are being maintained at levels that would not preclude future designations of rivers with the potential for inclusion into the Wild and Scenic Rivers system.

Action:

- Implement Wild and Scenic River management plans as budgets allow.
- Develop and implement wilderness fire management plans.