

**Blue Mountain Forests' Monitoring Report – Fiscal Year 1999**  
**Section M - Malheur National Forest**

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## **MONITORING ITEMS NOT REPORTED FOR FY 1999**

A few Monitoring Items from the Malheur Forest's 1995 Monitoring and Evaluation Plan were not reported in FY 1999. Some items only need to be reported every few years in order to detect trends. Other items were purposely deferred pending updated monitoring protocols or direction, and some were deferred due to lack of funding or being a low priority. Some items not found in this section were reported in Section C, coordinated monitoring items. Even when a monitoring item is reported, it may not address all the monitoring questions from the 1995 Monitoring Plan.

Monitoring Items that were not reported for any of the above reasons discussed above include the following:

Item 2	Dispersed Recreation Sites
Item 4	Semi-Primitive Recreation Setting
Item 5	Off-Highway Vehicle Use
Item 12	Dead and Defective Tree Habitat
Item 13	Big Game Habitat
Item 23	Timber Suitability
Item 35	Administrative Facilities

## **FOREST PLAN AMENDMENTS**

No amendments to the Forest Plan were completed in FY 1999.

## **SUMMARY OF FINDINGS AND RECOMMENDED ACTIONS**

The Summary of Recommended Actions, beginning on page M-4, is a table showing all Malheur Monitoring Items and whether they were deferred, consolidated with the other Blue Mountain Forests (Section C), or reported in this section (M). The table summarizes the key findings and the recommended actions to be taken because of this year's monitoring for the Malheur National Forest. A more complete analysis of this year's included monitoring items can be found later in this section (M) or in the Coordinated Monitoring Section (C).

Categories of recommended actions are identified in the table as follows:

**Change Practices (CP)** - Indicates that the results of current practices are outside the thresholds of variability and/or are not meeting specific direction set by the Forest Plan. A change in practice or procedure may be needed.

**Further Evaluation (FE)** - Indicates that results may or may not have exceeded the threshold of variability, but additional information or evaluation is needed to better identify the cause of the concern and/or determine future actions.

**Amend Forest Plan (AP)** - Indicates that results are inconsistent with the Forest Plan, or the Forest Plan direction was not clear. The Forest Plan may need to be changed or clarified through the amendment or revision process.

**Continue Monitoring (CM)** - Indicates we will continue with the current scheme.

**Not Evaluated (NE)** – The monitoring item was not evaluated this year.

**Summary of Recommended Action**  
**◆ 1999 Monitoring Report ◆**  
 Malheur National Forest

Report Section*	MI #	Monitoring Item (MI)	1998 Action	1999 Recommended Action			Remarks
				Change Practice	Further Eval.	Amend Forest Plan	
Mal	1	Developed Recreation	CP	X			Public seems generally satisfied with the Forest's recreation facilities.
Def	2	Dispersed Recreation	NE				Deferred for FY 99.
Mal	3	Trail System	CM				Over 900 miles of trails were maintained including about 500 miles of snowmobile trails.
Def	4	Semi-Primitive Recreation Setting	NE				Deferred for FY 99.
Def	5	Off-Highway Vehicle Use	NE				Deferred for FY 99.
Mal	6	Wilderness	CM				Need to complete the Levels of Acceptable Change and the capacity study for determining outfitter needs.
Mal	7	Wild and Scenic Rivers	CP		X		Most Wild and Scenic characteristics and standards are being met. Make range administration a high priority.
Coord	8	Cultural and Historic Site Protection	CP				13 of 170 monitored sites were impacted.
Mal	9	Visual Resources	CP		X		Management practices other than timber sales need monitoring.
Mal	10/11	Resident and Anadromous Fish Habitat	CM				Best Management Practices are generally being implemented on timber sales. Livestock grazing does not always meet guidelines.
Def	12	Dead and Defective Tree Habitat	FE		X		Surveys indicate we are not meeting standards in some areas.
Def	13	Big Game Habitat	NE				Deferred for FY 99.
Mal	14	Old Growth Habitat	FE		X		Old growth management is conforming with the Forest Plan.
Mal	15	Threatened, Endangered, and Sensitive Species	CP		X		Newly listed species has increased the Forest workload.

\* More information on items can be found in: Mal = Malheur; Coord = Coordinated; Def = Deferred (not evaluated FY 99); Accom Report = Accomplishment Report Table at the end of the Umatilla section.

Report Section*	MI #	Monitoring Item (MI)	1998 Action	1999 Recommended Action			Remarks
				Change Practice	Further Eval.	Amend Forest Plan	
Mal	16	Raptor nests	FE		X		A goshawk nest stand was burned because of missed mitigation measures. The pair remained active.
Coord	19	Range Allotment Status	NE		X		No Allotment Management Plans (AMPs) were completed on the Forest in FY 99.
Accomp Report	20	Range Improvements	CM		X		59 Acres of non-structural improvements and 50 structural improvements were done.
Coord & Accomp Report	21	Range AUMs, Utilization, and Condition	CM				80% of the monitored pastures met standards.
Mal & Coord	22	Managing Competing and Unwanted Vegetation	CM				The Forest manually treated 59 acres of noxious weeds this year. Hexazinone was used on 53 acres to control vegetation competing with conifers.
Def	23	Timber Suitability	NE				Deferred for FY 99.
Coord	24	Silvicultural Practices	CM				Five-year survival was not recorded.
Coord	25	Reforestation	FE				About 7,500 acres were planted.
Coord	26	Timber Harvest	FE AP		X	X	Over 15,000 acres of mostly fire salvage was harvested.
Coord	27	Timber Offered	FE AP		X	X	34 million board feet of Timber Sale Program Quantity was offered.
Coord	29	Insects and Disease	CM				Insect levels remain low with the exception of Douglas fir tussock moth and Douglas fir beetle.
Mal	30	Water Resources	FE		X		BMP implementation was monitored on 12 units and about 50% were correctly implemented.
Coord	31	Air Quality	CM				Prescribed burning met Forest Plan Standards.
Mal	32	Soils Resources	CP		X		Four of five monitored units met soil protection guidelines.
Coord	33	Minerals	CM				Fourteen of 40 inspected sites were active and meeting Forest Plan rehabilitation standards and guidelines.

Report Section*	MI #	Monitoring Item (MI)	1998 Action	1999 Recommended Action			Remarks
				Change Practice	Further Eval.	Amend Forest Plan	
Coord	34	Road Mileage and Open Road Density	CP		X		180 miles of roads were decommissioned or closed. Two miles were constructed and 94 miles of roads were reconstructed.
Def	35	Administrative Facilities	NE				Deferred for FY 99.
Coord	36	Fire	CM				Over 34,000 acres were prescription burned.
Coord	37	Program Budgets, Expenditures, and Accomplishments	FE AP		X	X	Deferred for FY 99.
Coord	38	Costs and Values	CM		X	X	Deferred for FY 99.
Coord	39	Local Income	CM		X	X	Reported in ICBEMP in Feb 98.
Coord	40	Local Employment	CM		X	X	Reported in ICBEMP in Feb 98.
Coord	41	Payments to Counties	CM		X	X	Refer to table C-22 for summary.

## **MALHEUR Monitoring Item 1 Developed Recreation**

*Questions: Are existing developed recreation facilities accommodating recreation demand? Are developed recreation facilities meeting customer expectations and desires?*

Existing facilities are meeting current recreation demand. There were 20 campgrounds provided for in the Forest Plan, and 19 were available for use in FY 99. Beech Creek Campground was closed a few years ago due to a very high number of hazard trees. It is unlikely that it will be opened in the future because of low demand. In addition, removing all the hazard trees would probably result in a small clearcut, which would not be appealing to campers.

Informal use surveys were conducted at campgrounds periodically during the late spring, summer, and early fall months. The surveys showed an occupancy rate of approximately 53.5% at the most popular campgrounds--Magone Lake, Strawberry, and Big Creek. This is a decrease from the 1998 average occupancy rate of 69% and a further decrease of the 1997 average occupancy rate of 71% for the same campgrounds. Magone Lake showed an occupancy rate of 81.9%; therefore, the drop in the average rate can be attributed to a drop in use of Big Creek and Strawberry Campgrounds. These three campgrounds are of the nine fee campgrounds on the Malheur National Forest included in the fee demo program, implemented in 1998. The decrease in occupancy rate in 1998 is suspected to be due to the collection of fees at these campgrounds. The decrease in occupancy rate for 1999 may partially be attributed to the late heavy snows at Big Creek and Strawberry Campgrounds. The other campgrounds showed an occupancy rate of approximately 41.3%, which is lower than the occupancy rate of 45% shown in 1998. The decrease in occupancy rate may be attributed to several factors such as late snows in some areas, users utilizing campgrounds that offer more recreation opportunities than just camping, or less Forest Service presence (resulting in a lower actual count of visitors).

Based on the data collected, it appears the existing campground facilities are accommodating recreation demand, but some are approaching their capacity at certain times of the year.

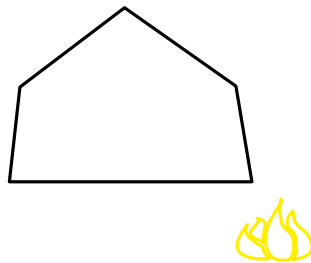
Most customer expectations are being met, especially at the non-fee campgrounds. As free campgrounds become fee campgrounds, customers expect a higher standard of services. Comments received on comment cards at the campgrounds show that customers paying fees expect trashcans to be available, more contacts with Forest Service personnel, and facilities such as water pumps that are easier to pump or toilets that are more accessible. Fee-paying customers also want potable water; they prefer not to dry camp. Sampling methods for this item included informal discussions with developed recreation site users and responses on comment cards, available at the campgrounds.

Most comments were positive about the operation and maintenance of the campgrounds on the Malheur National Forest. More drive-through trailer sites and larger parking sites for RVs and trailers were repeated suggestions. Suggestions were made to list the type and size of RV that each campground can accommodate. A need for more parking, especially for numerous trailers and RVs, in the day-use area of one campground with a popular trailhead was suggested. Others mentioned a desire for a large-group site in two campgrounds, including room for hunters with wall tents. There is a demand for more campsites in Little Crane Creek Campground during hunting season. Many recreationists do not want to see any (more) changes at nine campgrounds, although the public would also like to see potable water and garbage pickup at fee campgrounds.

Generally, the public seems satisfied with management and maintenance of recreation facilities on the Forest. Public acceptance of the fee demo program at the campgrounds was better than expected. Most people did not mind paying a fee if their money went back into the campground. Low funding levels for recreation management continue to limit the Forest's ability to make some of the improvements desired by recreating visitors, and limits ability to do thorough use surveys and customer surveys. However, even without adequate customer surveys, the Forest recognizes the need to make improvements in management and maintenance as funding allows. At low funding levels, the priority is to correct public safety hazards, rather than investing in large-scale facility improvements.

*Recommended Actions:*

- Continue to monitor.
- Improve the campground operation and maintenance by using collected fees to upgrade and maintain our campgrounds.
- Let the public know which campgrounds meet RV needs.





### MALHEUR Monitoring Item 3 Trail System

*Question: How many miles of trail were maintained, constructed, and reconstructed for each type of trail that exists on the Forest?*

Approximately 906.7 miles of trails were maintained on the Forest in FY 99.

Table M-1  
**TRAIL MAINTENANCE**  
Malheur National Forest

TYPE OF TRAIL	TOTAL MILES OF TRAIL	MILES MAINTAINED IN FY 99	MILES CONSTRUCTED/ RECONSTRUCTED IN FY 99
Wilderness	133.6	130.6	0
All-purpose (hiking, horse, mtn biking, and motorized use)	46.9	46.9	0
Non-motorized	79.9	79.9	0
Foot-only (non-wilderness)	5.2	5.2	0
Barrier-free (handicapped accessible)	2.5	2.5	0
Mountain bike	223.1	223.1	0
Snowmobile	502.5	396.5	0
Cross-country ski	8.0	8.0	0
<b>TOTALS</b>	<b>997.4</b>	<b>906.7</b>	<b>0</b>

All summer trails were maintained in 1999. Because of the reporting methodology, the Forest did not distinguish if they were maintained to standard or not to standard. Approximately 79% of the winter trails were maintained; however, many trails are located on roads that received maintenance during the summer. Winter trail maintenance may not be to standard.

Construction was 95% accomplished on the Malheur Ford Trailhead. The Slide Connector trailhead and horse camp were 95% completed. NEPA was completed for the North Fork Malheur River trailhead.

While Forest Plan projections for trail construction and reconstruction are not being met, some work is being accomplished on the higher priority projects with the funding the Forest received through the 10 percent funds.

*Recommended Action:*

Recreation Staff Officer will develop a standardized reporting format for trail maintenance.

## **MALHEUR Monitoring Item 6 WILDERNESS**

*Question: What is the current level of public acceptance and expectations regarding the current wilderness conditions?*

The sources of information about the current level of public acceptance and expectations regarding wilderness conditions include verbal comments made in the office and to wilderness rangers in the field, as well as letters and comments on Visitor Registration Cards.

Strawberry Mountain Wilderness: No comments were received regarding air quality or soil retention. Some comments have been received on the amount of soil movement and loss of streamside vegetation along Indian Creek and Onion Creek following the 1996 Wildcat fire. In regard to the issue of prescribed natural fire, the Forest still receives comments that vary from full support of the program to no support for fires during the summer months or in scenic areas visible to the John Day Valley. There were comments made about the loss of big game cover/habitat, and native and sensitive anadromous fish habitat in the Indian Creek subwatershed. Some people were very concerned about the impact to the scenery from the fire. Some negative comments were also received about the private logging adjacent to the wilderness boundary near Graham and Roberts creeks.

No concerns were received about camp sizes or locations, except for large camps set up prior to hunting seasons. Comments were received about users leaving camps too trashy. Users have the expectation that camps can be built anywhere and that they can have campfires at all times. The visual aspect of having boats and float tubes on the lakes has been identified as an issue. Concerns have been raised about float tube users kicking up soil on the bottom of the lake and leaving the water cloudy for hours afterwards. Visitors have expressed concern over the grazing of most of the forage at the small meadows near lakes, as well as over some hitching practices. There is a concern about the unauthorized use of mountain bikes on trails and ATVs and vehicles accessing the wilderness via old roads or mining roads. The rule prohibiting child strollers in the wilderness also drew comments. Some hikers are concerned about others cutting switchbacks near Strawberry Campground.

There are concerns when trails are closed for safety purposes because users are sometimes inconvenienced by trail closures. There were several mixed comments regarding the new Slide Connector Trail #386. Many horse users felt the trail was dangerous for horses due to the bridge at the start of the trail, the narrow, steep portions of the trail that made horse packing almost impossible, and the fact that there was no connector trail to Strawberry Campground (they would have to ride their horses up/down the gravel road to make a "loop"). Other users felt the trail was great -- no problem for horses at all. Compliments were received on the Slide Connector horseback trailhead facilities. There were comments that the trails needed maintenance sooner, immediately after the snow melts off or even before the snow melts. This year, there were several comments about the late snows and the heavy downfall of trees on the trails. Compliments were received regarding trail maintenance on Strawberry Basin trail. There are requests for more horse facilities at trailheads (adequate parking and turnarounds, individual corrals, and a stock watering source within 100 yards).

There is high public acceptance for the Forest Service "presence" during the summer use season. Many people using the wilderness during this time are from outside the area and already practice some form of satisfactory wilderness ethics. Wilderness values appear to be less accepted by some local users. Some of the most significant problems are the use of ATVs, vehicles and snowmobiles on Baldy Mountain, caching of rafts (especially near Strawberry Lake), caching of camps and supplies at various locations, and tethering horses to trees in camps and on trails.

Monument Rock Wilderness - No comments have been received about air quality, soil retention, fish and wildlife, prescribed natural fires, or scenery. The public has expressed concern about the amount of fuel loading in the Little Malheur River drainage, and the high risk of catastrophic fire due to lightning. Compliments were received about the limited livestock use at Bullrun Spring, but there were some concerns that hunters had put stock in the enclosure and overgrazed the vegetation. No comments were received regarding campsites or locations. Some visitors have expectations that camps can be built anywhere. Concerns have been expressed over recreational livestock grazing all the forage at small meadows (i.e., Bull Run and Rock Springs).

Both Wildernesses: Visitors feel generally favorable about trail condition, length, number, and destination. Comments were received about horses leaving manure on trails and breaking down the trail tread. Some folks want to have trail names on the wilderness map. More signs in the wilderness that give distances to destinations are desired by some users; however, putting up additional signs would mean that we would not meet Forest Plan standards for signing in the wilderness. Some users have requested being able to hire outfitters/guides for services such as drop camps and hunting, and some outfitter/guides have requested permits to conduct services. There were no comments from the public on the backpacking outfitter/guides permit issued for the Strawberry Wilderness in 1999.

There is high public acceptance for the Forest Service "presence" during the summer use season. Many of the wilderness violations (i.e., use of motorized vehicles, use of game carts, chain saw used to cut firewood/clear late season blow down, leaving trash) tend to occur during hunting season, when contact with wilderness rangers or law enforcement officers is very low.

No formal monitoring for public acceptance and expectations of wilderness experiences was done, but we did receive many informal comments, as discussed above, which gave some reliable information. The wilderness rangers and receptionists can deal with most responses if they are properly trained. Some of the comments are good information that can be used by the manager responsible for wilderness areas in work planning for the following year. There is a need to emphasize wilderness patrols for the education and enforcement of wilderness values during hunting season. Due to low funding, it is unlikely that the Forest will be able to have as many wilderness patrols as needed.

*Recommended Actions:*

- Complete the Levels of Acceptable Change (LAC) and the capacity study for determining the need for Outfitters and Guides.
- Emphasize having wilderness patrols during hunting seasons.

**MALHEUR Monitoring Item 7  
WILD AND SCENIC RIVERS**

*Question: Are the free-flowing characteristics, water quality, and outstandingly remarkable values of Designated Rivers being protected and enhanced in a manner consistent with the standards and guidelines of the Forest Plan?*

Specific questions relating to the values are from the River Management Plans.

**NORTH FORK MALHEUR SCENIC RIVER MANAGEMENT PLAN**

*Are scenic values being maintained in project implementation?*

No projects such as timber harvest, prescribed burning or road construction have occurred in the area this year. The season of use combined with the Crane Crossing fence have alleviated many concerns about livestock use. Some comments about livestock use and animal droppings on the trail below the Crossing are still voiced. A landscape architect designed reconstruction of the northern North Fork Malheur River trailhead with scenery values taken into account.

*Are scenic values being enhanced in the river segment?*

No projects were undertaken that would enhance visuals.

*Are old growth characteristics being maintained consistent with desired conditions?*

No quantifiable surveys have been done to validate the desired conditions but existing characteristics are being maintained. Natural processes are being allowed to work except fire is still being suppressed and some human activities may have some effects.

*Is forage utilization within standards?*

Table M-2 shows the inspection results for each pasture.

Table M-2  
**RANGE UTILIZATION WITHIN THE  
NORTH FORK MALHEUR RIVER WILD AND SCENIC CORRIDOR**  
Malheur National Forest

Spring Creek:	North River Unit	Met Standard
	South River Unit	Met Standard
	River holding	Met Standard
	Bucktrough	Uncertain, Not Monitored
	Elk Flat Unit	No Use, Not Monitored
North Fork:	North River Unit	Met Standard
	South River Unit	Met Standard
Flag Prairie:	River Unit	Met Standard
Ott:	Rattlesnake Unit	Met Standard

*How are riparian elements of desired future conditions (DFCs) changing through time?*

Elements of streambank stability, increased shading, and shrub composition are variable due to livestock and big game use. They are improving in some areas and declining in other smaller areas (<15% of the total riparian area of the grazing unit) with concentrated livestock/ungulate use. Sedimentation, embeddedness, herbaceous, and tree canopy are remaining static. Recovery of alder is apparent.

*What are water temperatures within the drainage?*

Water temperature data were collected on a representative number of streams influencing the river from May/early June through mid-November. The State standard for streams with bull trout is 50°F or lower and without bull trout is 64°F. The distance from the Wild and Scenic River boundary varies as indicated below. Days exceeding the 7 day maximum standard are represented.

Table M-3  
**STREAM TEMPERATURES WITHIN THE  
 NORTH FORK MALHEUR RIVER WILD AND SCENIC CORRIDOR**  
 Malheur National Forest

Stream	Maximum Temperature °F	Temperature Standard	Days Exceeded 7 Day Max 50°F Temperature	Distance From Corridor
Lower Crane Creek	67.1	50°	123	600 ft.
Upper NF Malheur River	60.8	50°	105	within
Elk Creek	53.69	50°	53	500 ft.

Note: All of the above streams have bull trout so the 50°F standard applies.

*What are stream sediment and turbidity levels?*

This element was not monitored in Fiscal Year 1999.

*What other pollutants are present within the river?*

No formal sampling surveys were conducted. Seasonal pollutants of fecal coliform (cattle and other ungulates) occur. Minor incidental pollutants from users' wash water, and oil and gas pollutants from vehicles using the bridge and river ford crossings may occur.

**MALHEUR WILD AND SCENIC RIVER MANAGEMENT PLAN**

*Are scenic values being maintained in project implementation?*

Yes. The reconstruction of the Malheur River Ford and Trailhead was designed by the District Landscape Architect (LA) and reviewed by the Forest LA. The project was initiated and 95% completed in FY 99. The project entailed moving the trailhead sign and trail to the west out of the

meadow, construction of a ROMTEC toilet and accessible trail access to the toilet along with a barrier-free campsite. No concerns were received about livestock use at the Malheur Ford.

*Are scenic values being enhanced in the river segment?*

See comments above.

*Are old growth characteristics being maintained consistent with desired conditions?*

No quantifiable surveys have been done to validate the desired conditions but existing characteristics are being maintained. Natural processes are being allowed to work, except fire is still being suppressed and some human activities may have some effects.

*Is forage utilization within standards?*

Table M-4 shows the inspection results for each pasture.

Table M-4  
**RANGE UTILIZATION WITHIN THE  
 MALHEUR RIVER WILD AND SCENIC CORRIDOR**  
 Malheur National Forest

Star Glade	South Unit	Met Standard
Dollar basin	Dollar Unit	Met Standard
Bluebucket	Rock Springs	Did Not Meet Standard
	Cougar Unit	Did Not Meet Standard

No concerns were received about livestock use at Malheur Ford.

*How are riparian elements of desired future conditions (DFCs) changing through time?*

Elements of streambank stability, increased shading, and shrub composition are variable due to livestock and big game use. They are improving in some areas and declining in other smaller areas (<15% of the total riparian area of the grazing unit) with concentrated livestock/ungulate use. Sedimentation, embeddedness, herbaceous, and tree canopy are remaining static.

*What are the water temperatures within the drainage?*

Water temperature data were collected on a representative number of streams influencing the river from late May through mid-November. The State standards for streams with bull trout are 50° F and 64° F for streams without bull trout. The distance from the Wild and Scenic River boundary varies as indicated in the following table:

Table M-5  
**STREAM TEMPERATURES WITHIN THE  
 MALHEUR RIVER WILD AND SCENIC CORRIDOR**  
 Malheur National Forest

Stream	Maximum Temperature °F	Temperature Standard	Days Exceeded 64°F Standard	Days Exceeded 50°F Standard	Distance From Corridor
Upper Malheur River (Malheur Ford)	71.6	50°	76	125	within
Lower Summit Creek (at Larch Creek)	78.8	50°	88	126**	2.5 miles

\*\*Temperature exceeded 50° F when monitor was installed.

*What are the stream sediment and turbidity levels?*

This element was not monitored in FY 1999.

*What other pollutants are present within the river?*

No formal sampling surveys were conducted. Seasonal pollutants of fecal coliform (cattle and other ungulates) occur. Minor incidental pollutants from users' wash water, and oil and gas pollutants from vehicles using the river ford crossing may occur.

*Recommended Action:*

Continue with monitoring.

## **MALHEUR Monitoring Item 9 Visuals**

*Question: Are the Visual Quality Objective (VQO) standards being met?*

Visual quality objective standards were not monitored on timber sales in 1999. The Malheur Ford trailhead project was initiated in 1999. This project was monitored as to how it met the site plan and how it met visuals standards in a roaded natural wild and scenic river area. The majority of the completed work meets the site plan, thus the visual quality objectives for the area. Mitigation of the visual effects of the black cold mix may be needed in the future depending on the amount of weathering that occurs. Additional work may also be required on cutbanks to soften the effects of construction.

*Recommended Action:*

In addition to monitoring timber sales, monitor other practices within visual corridors such as prescribed burning, road maintenance practices, and recreation improvements.

## **MALHEUR Monitoring Item 10 RESIDENT FISH HABITAT**

*Questions: Are Standards and Guidelines for Non-Anadromous Riparian Areas and related BMPs being applied in MA 3A and MA 14 as directed by the Forest Plan? Are the base line data being collected and analyzed for all proposed projects in MA 3A? Are site-specific desired future conditions being established for resident fish habitat?*

Appropriate buffers were implemented on most timber projects with one exception on Cove Timber Sale where skidding across class 4 streams occurred. Several riparian habitat conservation areas (RHCAs) were entered to rehabilitate or restore aspen stands. Some MA 3A areas are still experiencing slow recovery or decline because of problems with overgrazing. The Cottonwood burn inadvertently destroyed some riparian enclosure fence and plantings due to lack of recognition of RHCAs and riparian enhancement projects. Several enclosure fences were constructed to protect aspen stands.

Data were collected on about 15 streams characterizing 50 miles of habitat and fish through a challenge cost share project with Oregon Department of Fish and Wildlife on the Silvies Canyon watershed analysis. Hankin and Reeves Level II baseline data were used for projects signed in 1999. Baseline surveys for bull trout spawning habitat was conducted over the past two years.

Desired future conditions have been established with INFISH. These objectives were addressed with projects completed or planned during FY 99. Watershed assessments to define desired future conditions for site-specific fish habitat have not been well funded and are still needed in most areas.

### *Recommended Actions:*

Coordinate future monitoring activities with the Umatilla and Wallowa-Whitman National Forests.



## **MALHEUR Monitoring Item 11 ANADROMOUS FISH HABITAT**

*Questions: Are Standards and Guidelines for Anadromous Riparian Areas and related BMPs being applied in MA 3B and MA 14 as directed by the Forest Plan? Is the base line data being collected and analyzed for all proposed projects in MA 3B? Are site-specific desired future conditions being established for anadromous fish habitat?*

Standards and Guidelines (S&Gs) and related BMPs are being met with timber sale project implementation. Buffers were implemented on all streams using PACFISH direction. The guidelines for grazing in riparian areas are not always being met.

Most base line data have been collected prior to FY 99. Budget restrictions have limited addition data collection. Many non-timber projects such as range and recreation lack surveys and full analysis of existing data.

Desired future conditions have been established with Forest Plan amendment 29 and PACFISH. The Upper Middle Fork John Day Watershed Analysis had few site-specific recommendations for restoration of riparian habitat. If the stream was not identified as being in a degraded condition, no DFCs were established. Watershed assessments to define desired future conditions for site-specific fish habitat have not been well funded and are still needed in most areas.

### *Recommended Actions:*

Coordinate future monitoring activities with the Umatilla and Wallowa-Whitman National Forests.

## **MALHEUR Monitoring Item 12 DEAD AND DEFECTIVE TREE HABITAT**

*Question: Are the number and distribution of snags, replacement trees, and down logs prescribed in site-specific planning efforts being retained following management activities?*

Dead wood inventories were conducted on four timber sales on the Malheur National Forest. These sales were planned prior to the Regional Forester's Amendment #2 so the standard was 40% Potential Population Level (PPL) or 0.95 snags/acre. There are no baseline snag data for any of the monitored units. Post-harvest snag levels were at 20% PPL on the Burns RD survey units; trees were girdled in an effort to meet the 40% PPL. Prairie City RD had one unit exceeding the 40% PPL with a post-harvest level of 60-80% PPL. The remaining seven units surveyed did not meet standards.

There was no formal monitoring on the Long Creek RD. Timber Sale Administrators state that the number and distribution of snags was implemented as planned within the Summit Fire project area.

Down logs did not meet standards in all units surveyed on Prairie City RD. Number of down logs was retained as planned in the Summit Fire Project. Downed log numbers were not reported for Burns RD.

Replacement trees were insufficient to ensure long-term snag and down log numbers for the entire rotation on Prairie City RD units. The number of replacement trees was retained as planned in the Summit Fire Project. Replacement tree numbers were not reported for Burns RD.

Pre-project surveys for snags, down logs and replacement trees were conducted on Burns RD. Due to Douglas fir tussock moths snag densities of the small and mid-diameter Douglas fir and white fir snags are at or are approaching 80-100% PPL on a landscape level. Lower snag densities are present in some subwatersheds or areas due to site potential or past harvest activities and will not meet standards. Down logs appear to be at or near the standard. Green tree retention guidelines were incorporated in silvicultural prescriptions.

### *Recommended Actions:*

- Coordinate future monitoring with Wallowa-Whitman and Umatilla National Forests.
- Dead and defective tree standards identified in Amendments 1 and 2 may be inappropriate to apply to the hot/dry biophysical environment. Concerns about the ability to meet or achieve standards continue.

## **MALHEUR Monitoring Item 14**

### **Old Growth Habitat**

*Questions: Are dedicated old growth areas providing suitable habitat for MIS, including meeting distribution patterns of these species? If not, are site specific planning efforts analyzing and prescribing needed changes to improve the situation, including moving and /or modifying areas to provide suitable habitat when needed? Are these changes or prescriptions maintained following management activities?*

To insure that designated old growth areas (DOGs) best meet old growth definitions and characteristics and that each designated area has an identified replacement old growth (ROG) that has the capability of providing old growth habitat in the future, monitoring and analysis is conducted through the project level evaluation process.

The Decision Notice and Finding of No Significant Impact authorizing the relocation of a DOG and designation of two ROGs on the Burns RD is pending final signature by the Forest Supervisor. The DOG was relocated to a 378-acre area that meets the Regional old growth definitions. The ROG areas will be treated by prescribed burning and pre-commercial thinning to promote old growth characteristics and structure. Boundary signing will likely occur in FY 2000.

Portions of a DOG on the Burns RD were underburned to reduce fire risk, improve vegetative vigor, and improve habitat conditions. Preliminary monitoring conducted two months post-burn indicate "neutral" results. There was some loss of snags and down logs during the burn but enough recruits were created to offset losses. Future monitoring should be done to determine if old growth structures decrease or increase compared to pre-burn levels.

One Prairie City RD DOG, identified for marten, is located in a hot/dry and warm/dry plant association. An area to relocate this old growth (MA 13 standard 10) has been identified and silvicultural treatment is proposed in order to provide more large trees and to establish a multi-stratum character. Once this site becomes suitable for martens, the DOG will be relocated. At another site, a ROG and pileated woodpecker feeding area are being designated.

Distribution of old growth areas is fairly evenly spaced and in a grid-like pattern.

#### *Recommended Actions:*

- Continue monitoring.
- Continue to analyze and prescribe needed changes to improve the availability and condition of old growth stands.
- Continue to adjust boundaries to include whole stands.
- Attempt to meet the acreage recommended in current research for old growth Management Indicator Species (MIS).

## **MALHEUR Monitoring Item 15 PROPOSED/THREATENED/ENDANGERED/SENSITIVE SPECIES**

*Question: Are protection and enhancement measures for proposed, threatened, and endangered species prescribed in site-specific planning efforts implemented as described?*

In the planning of projects, protection and enhancement measures are specified where necessary. Timing restrictions and monitoring are included in project planning.

*Questions: Is management of proposed, threatened, and endangered species across the Forest meeting Forest Plan Standards and Goals and objectives of recovery plans? What are the population and distribution status and trend for these species?*

PACFISH and INFISH guidelines are being implemented on all projects. The bald eagle recovery plan is being implemented on all projects within bald eagle habitat. The draft lynx conservation strategy is being implemented on all projects being planned within lynx habitat.

The population and distribution status and trend are unknown for most species. A Burns Ranger District eagle nest was surveyed and considered successful based on the observation of one fully feathered nestling.

Several communal winter roost sites have been identified on the Malheur National Forest with the majority occurring on the Burns Ranger District. Roost sites are monitored yearly and have written management plans. Two roosts appear to have an upward trend in numbers of bald eagles using the roosts. Monitoring of wintering bald eagles on Bear Valley/Long Creek RD shows no change since 1990.

### 1999 Oregon Midwinter Bald Eagle Count - Harney Basin Results

The count totaled 30 bald eagles (21 adults, 6 immature, and 3 unknown age). There appears to be a 20% decrease over the last four-year average and a 48% decrease over last year's record setting numbers. Results may be due to weather conditions or other variables rather than an indicator of a downward trend in population.

Transects to detect the presence of Canada lynx were established on the northern half of the Forest. Results of the survey will be available spring 2000. To date, lynx are not known to occur on the Forest but there are several unconfirmed sightings.

Bull trout redd counts were conducted. Redd counts cannot give population numbers; however, if conducted over several years, they can give trend data. This is the fourth year of surveying. Numbers of redds have gone up each year. Forest Service personnel also assist ODFW with steelhead surveys.

*Question: Are Biological Evaluations being prepared and enhancement measures for sensitive species prescribed in site-specific planning efforts implemented as described?*

Biological evaluations were written for all ground or vegetation disturbing activities. Many planning efforts contain activities specifically designed to enhance sensitive species habitats, and if necessary, mitigation measures are used for other activities that do not enhance habitats.

The Malheur National Forest recognizes that aspen stands, a habitat type used by Preble's shrews as well as management indicator species and many other animal species, are declining across the Region. A continuing effort is being made to document and enhance these aspen stands whenever possible.

Prairie City RD conducted implementation monitoring for upland sandpipers in Logan Valley. A project to reduce lodgepole pine encroachment on the meadow has resulted in falling trees and burning slash. With this project, habitat improvement for long-billed curlews and sandhill cranes is also anticipated.

*Question # 6: Is management of sensitive species across the Forest: 1) meeting Forest Plan Standards; 2) meeting goals and objectives of conservation strategies; and 3) resulting in activities which do not contribute to the loss of viability of any native or desirable non-native plant or animal species and will not cause species to move toward federal listing? What are the population and distribution status and trend for these species?*

All management activities on the Malheur National Forest go through an interdisciplinary team process, which filters out most activities that will negatively impact sensitive species. Any other potential impacts are mitigated to reduce or eliminate any negative impacts to sensitive species through the Biological Evaluations. To date, no sensitive species on the Malheur National Forest have been moved to federal listing due to activities conducted on the Forest.

Currently the Malheur National Forest does not monitor population viability or conduct distribution studies for any species. We do, however, attempt to maintain important habitats and habitat features that sensitive species require to maintain viable populations (i.e. snags/large woody material). For actual species numbers and distributions, refer to ODF&W or USFWS.

Some anecdotal information on the population and presence of upland sandpipers, long-billed curlews, and sandhill cranes has been gathered for Logan Valley on Prairie City RD. Sandpipers have not been sighted since 1996. Sandhill cranes (2-3 pairs) have been nesting yearly for over 10 years. Monitoring of long-billed curlews indicates that their numbers have decreased in the past 10 years

*Recommended Action:*

Coordinate future monitoring with Wallowa-Whitman and Umatilla National Forests.

## **MALHEUR Monitoring Item 16**

### **RAPTOR NEST SITES**

*Question # 2: Are prescriptions for raptors nest site protection and associated fledgling areas or similar measures identified in site-specific planning efforts? Are these measures implemented as described following management activities?*

The Regional Forester's Forest Plan Amendment # 2, June 1995, is followed and all known northern goshawk nest sites are protected, an associated post-fledging area (PFA) is established, and timing restrictions are applied to activities within territories active during the past five years. All other raptor nest sites are protected with at least a 50-foot no-cut buffer and seasonal restriction of operations, if appropriate, are applied on a project-by-project basis.

A prescribed burn was planned on Prairie City RD. Prior to implementation a burn plan and monitoring of goshawk nest sites was to occur. This did not occur and a nest stand was burned. While mitigations to prevent impacts were developed and planned for, they were not implemented on the ground. Monitoring later found one of the nest sites to be active in a lightly burned portion of the nest stand.

Long Creek/Bear Valley RD did not monitor project implementation in 1999.

*Question # 3: Were the protection measures implemented successful in meeting Forest Plan Objectives?*

Nest site protections and seasonal restrictions on operations have been respected on the Burns Ranger District. Survey results within a project area indicate that five goshawk nests were active, one nest was not, and five nests had unknown use.

Long Creek/Bear Valley Ranger Districts' monitoring indicates that no territories have been abandoned where protection is in place. Two nest failures may have been the result of activities, specifically traffic adjacent to the nest sites. Use has not been detected at these sites since 1996 and 1997.

The success of the goshawk nest on Prairie City RD discussed above is unknown.

#### *Recommended Actions:*

- Improve coordination across disciplines during project implementation.
- Monitor activities within the year they are implemented.

## **MALHEUR Monitoring Item: 22**

### **Managing Competing and Unwanted Vegetation**

*Questions: Are treatments for competing and unwanted vegetation effective in achieving resource management goals? Is the need for vegetative treatments, particularly the application of herbicides and prescribed burning, being reduced?*

The goal of managing competing vegetation is typically not an objective of the prescribed fire and fuels treatment program. Disposal of the residues following an activity to remove competing vegetation, such as pre-commercial thinning, does fall within the scope of the fuels treatment program. Treatment may be prescribed burning, mechanical rearrangement, or a combination such as piling residue and burning the piles.

Technically, the natural fuels program could be considered as removing unwanted vegetation in terms of reducing stand density, and ladder fuels. The primary goal is to reduce the hazard by maintaining fuel loadings at a level that would not result in catastrophic damage from wildland fire.

The prescribed fire and natural fuels program is expected to increase in ecosystems which are dependent on frequent low intensity fire to retain resilience to natural disturbance activities.

During FY 99, 53 acres were treated with 14 pounds of hexazinone to control vegetation competing with conifers. Parish Cabin Seed Orchard was treated along with West Fork and Beaver Evaluation Plantations.

#### *Recommended Action:*

Determination of acres treated for unwanted vegetation is not a standard monitoring item or measurable objective in most hazard reduction projects. The natural fuels treatment program far exceeds the scope of the program at the time the mediated agreement was adopted. A review of the mediated agreement should be conducted to determine if it is still applicable to the fuels treatment programs or if this monitoring item is necessary for the fuels program.

## **MALHEUR Monitoring Item 30 WATER RESOURCES**

*Question: Are BMPs being properly selected and applied in project areas in compliance with the MOU with the State of Oregon?*

In 1999, Malheur National Forest monitored 12 projects for implementation and effectiveness of BMPs to improve and protect water quality. Projects included timber sales, road maintenance and decommissioning, range allotments, and wildfire rehabilitation. Three districts, the supervisor's office, and a tri-forest monitoring team completed monitoring. Focus for evaluating BMPs centered on effectiveness in reducing sediment transport, particularly with roads and subsoiling. Twenty-six BMPs were monitored with approximately 50% correctly implemented and the remainder found to be either incomplete or not implemented. Of those implemented, a 92% effectiveness rate was found.

Timber sales: T5, 8, 9, 10, 11, 13, and 16. Operating outside of normal operating time periods resulted in soil displacement and sediment transport on one timber sale area. Most landings met standards for size and locations. Two landing locations raised concern because of risk to the stream network. An existing location in a draw was used although a more suitable site 50 feet away was found. Another location was on a steep hillslope where sidecast debris became perched and posed a risk of failing and delivering sediment to a stream. Trail widths and spacing were found to meet standards. Snow logging reduced spacing, compaction, and displacement. The jury is still out on mechanized harvester equipment. This equipment resulted in tighter spacing of trails than designed and some displacement was observed. Compaction was generally less with this type of equipment, particularly over snow. Disturbance appeared related to the level of the operator's experience.

Subsoiling: T20, W1, 5, 7, 8, VM 2, 3. This is addressed also under Monitoring Item 32, protection of soil resources, and more discussion may be found later in this report. Subsoiling had mixed reviews. Some units were evaluated and found to be within standards with adequate stocking so subsoiling was not implemented. Subsoiling was found effective on several timber sales on low to moderate slopes. However, steeper slopes showed evidence of rilling and sediment transport. A BMP to prohibit subsoiling down draws and stream bottoms was not followed and resulted in erosion, sediment production, and transport directly into a perennial fisheries stream. Another unit followed BMPs but because of a southerly aspect, heavy snowfall, and rapid melt, erosion resulted. Concentrated flows in the furrows exacerbated erosion.

Roads: R1, 3, 11, 18, 19, 21, and 23. Roads were evaluated on several timber sales within the Summit Fire area for location, timing of activities, sidecast material, maintenance, surface treatment, snow removal, and obliteration. Use of roads during winter operations and wet spring conditions triggered most of the rutting and ponding problems and channelized flow. Snow removal with subsequent sidecasted material increased the risk of sediment transport to the stream network. Increased plowing and grading lowered the road elevation causing soil loss and channeling flow down the road prism. Most of these problems were repaired later during road maintenance in drier conditions. Early inspection of road decommissioning produced forest guidelines for culvert removal. Subsequent practices improved and roads were closed for hydrologic stability and water resource improvement.



Range Management: RM 1,2,3, W3. Two allotments were evaluated. The past summer and fall had droughty conditions which limited normal regrowth of vegetation. This compounds the risk to unstable stream banks during runoff and peak flows. A lag time occurred between reported time of exceeding utilization standards and take-off time of cattle. Trespass cows on allotments after take-off dates exacerbated vegetation conditions. Concentrated use for as little as two days in riparian holding and branding pastures resulted in little to no protection to wetlands/floodplains. Unstable stream banks were eroding.

Fire: F6. BAER winter wheat seeding was evaluated and rated successful in providing critical ground cover and reducing erosion during the initial three years after fire. No detrimental effects to regrowth of natural vegetation were noted in the seeded areas. Winter wheat was declining in population as expected. Success at higher elevations needs further evaluation.

*Recommended Actions:*

- Use of the BMPs reporting form should be consistent across the Forest.
- Implementation of BMPs should be timely. Monitoring has shown a 92% effectiveness rate if BMPs are fully implemented.
- Site-specific BMPs should be designed and included in project files and NEPA document appendixes for each project rather than rely on the general Regional BMPs.
- Where possible, landings and trails should be located outside of draws and streams, and piling of debris should not be sidecast on steep slopes.
- More monitoring of mechanized harvester equipment is needed to design more specific BMPs for this type of harvesting.
- Follow the forest hydrologist's guidelines for culvert removal and road closure.
- Discourage skidding down ephemeral draws and do not subsoil existing skid trails if in draws or stream bottoms.
- During subsoiling on steeper slopes, leave an undisturbed compacted section ~5 feet width to act as a cross-drain. Spacing of these would follow normal cross-drain spacing per slope.
- A true subsoiler should be used where reduced compaction is the objective. This equipment vibrates and shakes with less surface disturbance (i.e. no furrows). This would reduce the likelihood of concentrating flow and erosion.
- Winter haul operations may need increased supervision and work stoppage invoked under wet conditions.
- Locate stream courses and buffers prior to snowfall and construction of temporary roads and landings.
- Concentrated cattle use in riparian pastures should be discouraged, even for short time periods. Upland locations could be located for holding and branding pastures.

## **MALHEUR Monitoring Item 32**

### **SOIL RESOURCES**

*Question: Is the Forest complying with Regional guidelines for the protection of soil resources by properly implementing Forest Plan Standards for the protection of soil resources? (Forest-wide standards 125-129)*

The 1990 Malheur Forest Plan sets a maximum standard of 20% of an area that can be detrimentally disturbed by roads, landings, and skid trails. Detrimental compaction is defined as an increase in bulk density of 20% and 15% in ash and residual soils respectively. Detrimental displacement is defined as removal of more than 50% of the topsoil or humus-enriched A1 or AC horizons from an area of 100 square feet or more that is at least five feet in width. Detrimental puddling is defined as tracks where soil has been molded and the depth of rutting has reached or exceeded six inches.

#### ***Results***

Three units on the Clear Salvage sale were evaluated for soil disturbance standards. Impacts from a feller buncher, when used over snow, were considered insignificant. An impact increased where the most passes occurred (near landings). Skidding was estimated to detrimentally affect 25-80% of total skid trail length. Displacement was the primary detrimental soil disturbance since compaction associated with skid trails and landings is assumed ameliorated by subsoiling. Of the three monitored units, detrimental disturbances varied from 9.1, 16.9, and 19.6%.

Two units on the Pog-Pogo sale were evaluated and found to have 18% and 24% detrimental disturbance. Tractor-logged portions of the unit had compaction and displacement above Forest Plan standard. Existing compaction in the units from previous logging was a major cause of disturbance. Feller-bunchers and light entry prescriptions reduced impacts from the recent activities.

Although an objective of subsoiling is to reduce compaction and improve the soil resource, it can also cause displacement and loss of soil. Subsoiling was found effective on several timber sales on low to moderate slopes. However, steeper slopes showed evidence of rilling, sediment transport, and soil loss. A unit with southerly aspect and very low slope had converging trails which were subsoiled. Heavy snowfall and rapid melt resulted in concentrated flows in the subsoil furrows, and erosion resulted. Subsoiling down draws and stream bottoms caused heavy soil loss. Use of subsoiling and further determination of its benefits may need to be monitored and reviewed. It should be noted that equipment used on the Malheur National Forest is modified from original design. The original design of a winged subsoiler lifted and vibrated the soil mantle and did not furrow.

*Recommended Actions:*

- Continue to monitor use of mechanized harvester equipment to develop operations which reduce the number of trails.
- Further evaluate effects from subsoiling.
- Discourage skidding down ephemeral draws and do not subsoil existing skid trails if in draws or stream bottoms.
- During subsoiling on steeper slopes, leave an undisturbed compacted section ~5 feet width to act as a cross-drain. Spacing of these would follow normal cross-drain spacing per slope.
- A true subsoiler should be used where reduced compaction is the objective. This equipment vibrates and shakes with less surface disturbance (i.e. no furrows). This would reduce the likelihood of concentrating flow and erosion.

The following table provides a summary of selected Forest accomplishments and resource outputs for FY 1999 from all funding sources, including trust funds and partnership efforts. Where possible, these are compared to Forest Plan estimates, but in many of the cases the unit of measure has changed since the Forest Plan was completed and direct comparison is no longer possible.

Table M-6  
**FOREST ACCOMPLISHMENTS – Fiscal Year 1999**  
Malheur National Forest

RESOURCE ACTIVITY/OUTPUT	UNIT OF MEASURE	FOREST PLAN PROJECTION (avg/year)	ACTUAL FY 99 FOREST OUTPUT	% ACTUAL TO FOREST PLAN
<u>FIRE</u>				
Natural Fuel Treatment	Acres	2,000	22,450	1,123
Activity Fuel Treatment	Acres	10,000	2,714	27
<u>FISH</u>				
Anadromous Stream Restored/Enhanced	Miles	Not Specified	2	NA
Inland Stream Restored/Enhanced	Miles	Not Specified	5	NA
<u>RANGE</u>				
Permitted Grazing	AUMs	110,000	78,300	86
Non-structural Improvements	Acres	4,800	59	1
Structural Improvements	Structures	250	30	20
Noxious Weed Treatment	Acres	200	59	30
<u>RECREATION</u>				
Trail Construction/Reconstruction	Miles	50	0	0
Developed Recreation Capacity	PAOTs	371,000	441,670	119
<u>ROADS</u>				
Construction	Miles	220	2	1
Reconstruction	Miles	Not Specified	120	NA
Decommissioned	Miles	Not Specified	43	NA
Closed	Miles	Not Specified	137	NA
<u>THREATENED, ENDANGERED, and SENSITIVE SPECIES</u>				
Aquatic Habitat Restored/Enhanced	Miles	Not Specified	3	NA
Terrestrial Habitat Restored/Enhanced	Acres	4	90	2250
<u>TIMBER</u>				
Total Program Sale Quantity	MMBF	211	34.1	16
Reforestation	Acres	12,672	7,517	59
Timber Stand Improvement	Acres	10,800	6,109	57
<u>WILDLIFE</u>				
Habitat Restored/Enhanced	Acres	750	4828	644
Habitat Structures	Structures	300	0	0
<u>WATER</u>				
Watershed Improvements	Acres	172	1,677	975