

FOREST PLAN  
13<sup>TH</sup> ANNUAL  
MONITORING AND  
EVALUATION REPORT

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NEZ PERCE NATIONAL FOREST

Fiscal Year 2000

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## INFORMATION REQUESTS AND COMMENTS

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Information requests or comments about the Nez Perce National Forest's Land and Resource Management Plan and/or Annual Monitoring and Evaluation Report can be directed to one of the following offices:

### **Salmon River Ranger District**

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FOREST PLAN 13<sup>TH</sup> ANNUAL  
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REPORT  
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**INTRODUCTION**

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The Land and Resource Management Plan (Forest Plan) for the Nez Perce National Forest was approved by the Regional Forester on October 8, 1987. In it, a commitment was made to monitor and evaluate how well the Forest plan is being implemented. Monitoring and evaluation comprise the management control system, and the results of monitoring and evaluation provide the line officer and the public with information on the progress and results of implementing the Forest Plan.

A commitment was also made to consider modifications to the Forest Plan using amendments based on the monitoring and evaluation findings. Monitoring and evaluation each have a distinctly different purpose and scope.

**Monitoring** is the act of gathering information/data and observing the results of management activities to provide a basis for periodic evaluation of the Forest Plan. There are three types of monitoring:

- **Implementation Monitoring** (sometimes called compliance monitoring) determines whether management actions are implemented as specified in the NEPA decision. For example, making sure that a specific required mitigation requirement is implemented. The question being asked is: "Did we do what we said we were going to do?" In this report, implementation monitoring is the type of monitoring assumed, unless otherwise specified.
- **Effectiveness Monitoring** often occurs over a period of years and determines whether the management actions are effective in meeting management direction and objectives. For example, determining whether a standard for retaining a certain amount of wood debris on the site is effective in maintaining

soil productivity and reducing erosion. The question being asked in this type of monitoring is: "Did the management practice do what we wanted it to do?"

- **Validation Monitoring**, which often occurs through research projects, determines if the assumptions underlying key elements of planning and analysis (including computer models) are correct. The question being asked here is: "Are the assumptions correct that are being used to make resource predictions and decisions?"

**Evaluation** is the analysis and interpretation of monitoring results. Evaluation will assist in the review of the conditions on the land covered by the Forest Plan as required at least every 5 years by the National Forest Management Act Regulations. Actions resulting from evaluation are reported in the Plan Amendments and Action Items (Appendix) sections of this report. Evaluating the results of implementation monitoring can lead to immediate changes in the operation of a project, whereas evaluating the effectiveness or validation monitoring can be a basis for changes in future planning or management.

**Monitoring and evaluation** focus on those facets of land and resource management, which could most critically affect Forest Plan implementation. Monitoring elements include:

- Items on which implementation may have a potentially significant effect;
- Items where achievement of a relevant goal or objective is going to be difficult;
- Item where projected effects may or may not occur as predicted; and
- Items where accomplishment of an objective or meeting of a standard determines the ability to achieve another goal or objective.

Forest Plan management activities were monitored and evaluated as outlined in the Forest Plan Monitoring Requirements section of the Forest Plan, pages 6 and 7, Table V-1, and Appendix O to determine how well objectives were met and how closely management standards were applied. Informal and formal field reviews were also conducted on a variety of projects during fiscal year 2000. These are documented in various ways, including daily diaries, file notes, and letters. These reviews are often conducted as routine inspections of timber sales, road contracts, mining operations, or while planning or implementing other projects. A summary of the key field reviews can be seen in Section II-D - Other Monitoring.

This report summarizes results of Forest Plan monitoring and evaluation conducted from October 1, 1999, through September 30, 2000. In some instances, it is difficult to determine how well the Forest Plan objective, outputs,

and standards are being met. For some items, data is insufficient to evaluate trends. We are continuing to develop methodologies for data acquisition and interpretation useful for evaluation. This report is organized into six main sections, plus an appendix:

□ **Monitoring and Evaluation Results and Trends**

This section compares planned outputs and services with the actual accomplishments and discusses budget and expenditure history and future projections. It also includes a detailed summary of monitoring findings for each of the required Forest Plan Monitoring Elements, subdivided by resource emphasis, i.e. wildlife, timber, recreation, etc.

□ **Research Needs**

□ **Forest Plan amendment summary as of September 30, 2000**

□ **List of Preparers**

□ **Forest Supervisor Approval Page**

□ **The Appendix**

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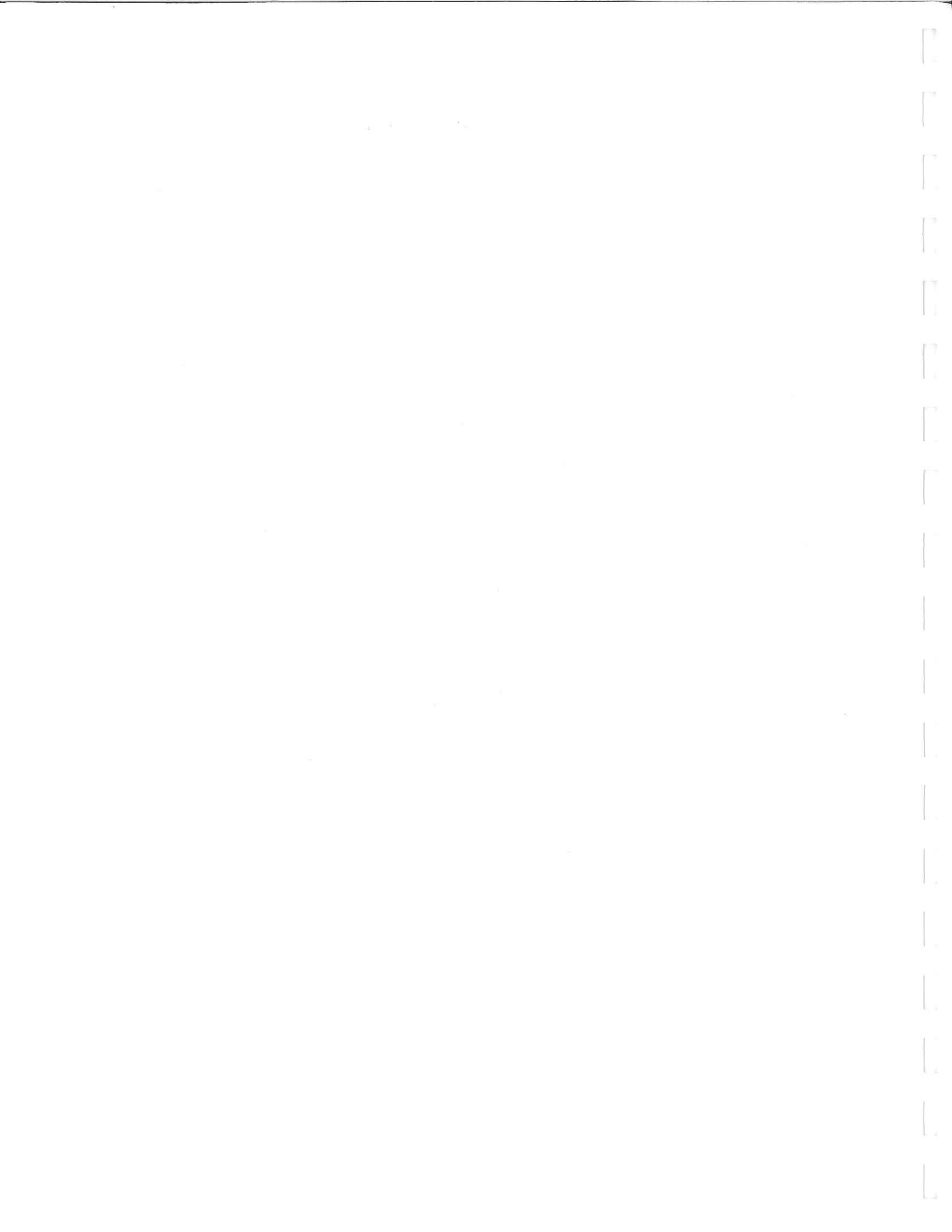


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**MONITORING AND EVALUATION**

**RESULTS AND TRENDS**

**A. WERE OUTPUTS AND SERVICES PROVIDED AS PREDICTED**

Table 1 compares the levels of activities and outputs projects in the Forest Plan with assigned targets for these schedules of work, and with actual accomplishments for these activities and outputs for fiscal year 2000.

Project outputs and activities published in the Forest Plan (Page II-9, Table II-1) are shown in the columns labeled "Forest Plan Projection."

The targets represent the levels of work assigned to the Forest by the Regional Forester and have been adjusted from projected levels in the Forest Plan to reflect actual funding levels.

Accomplishments shown the amount of work actually completed in each fiscal year.

Even though the reporting period for some monitoring items may be two or more years, information from all monitoring items is reported annually. This annual monitoring data will be evaluated at the end of the stated reporting period.

**TABLE 1**  
**LAND MANAGEMENT PLANNING (NFPN)**

<b>MAR Code</b>	<b>Cost Org</b>	<b>Definition</b>	<b>Unit of Measure</b>	<b>Forest Plan Projection</b>	<b>FY00 Target</b>	<b>FY 00 Accomplishment</b>
EM-LRMP-M&E	MC	Forest Plan Monitoring/Evaluation	Reports	N/A	1.0	1.0
EM-LRMP-UW	MC	Forest Plan Revisions Underway	Plans	N/A	0	0
EM-AMEND	MC	LRMP Amendments Completed	Amendments	N/A	0	0
EM-LRMP-COMP	MC	Forest Plan Revision Completed	Plans	N/A	0	0

### INVENTORY AND MONITORING (NFIM)

MAR Code	Cost Org	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
EM-RIVSS-INV	MA	Riverine Vly Sgmt Scale Inv.	Miles	N/A	0	22.0
EM-RIVSR-INV	MA	Rvrn Strm R/C Unit Scale Inv.	Miles	N/A	0	10.0
EM-LL-TY-INV	MA	Lacustrine Lk Type Scale Inv.	Acres	N/A	0	40.0
EM-LL-ZO-INV	MA	Lcstrn Lk Zone/Site Scale Inv.	Acres	N/A	0	0
EM-ECOREG-AS	MB	Ecrgn Sci-D/D/P Assessment	Assessment	N/A	0	0
EM-SUB-RVR-A	MB	Ecsrgn Sctn RvB/s Assessment	Assessment	N/A	0	.8
EM-AS-WA	MB	Lndsep/Wtrshd Scl Assessment	Assessment	N/A	0	1.0
EM-SRM-M	MC	LRMP Monitoring of Soil Res.	Acres	N/A	0	1.0
EM-WRM-M	MC	LRMP Monitoring of Water Res.	Sites	N/A	0	8.0
EM-AQRV-1	MA	Air Quality Related Value Inv	Acres	N/A	0	0
EM-AQRV-M	MC	Air Quality Related Value Monit	Acres	N/A	0	8.0
EM-VEG-SBS	MA	Veg Inv for Eco-subrgn Scale	Acres	N/A	0	0
EM-VEG-LPS	MA	Veg Inv for Lndsep/Wtrshd Scl	Acres	N/A	0	0
EM-TF-SBS	MA	Terrestrial Fauna Inv for Eco-subrgn	Acres	N/A	0	0
EM-TF-LPS	MA	Terrestrial Fauna Inv for Landscape	Acres	N/A	0	200000.0
EM-AQBI-R	MA	Aquatic Biota Inv for Riverine Valley/Stream Reach Scale	Miles	N/A	0	30.0
EM-AQBI-L	MA	Aquatic Biota Inv for Lake Type or Lake Zone Scale	Acres	N/A	0	90.0
EM-TEUI-SBRG	MA	Eco-subrgn (set/sbsct) Scale	Acres	N/A	0	0
EM-TEUI-LND	MA	Landscape Scale Inventory	Acres	N/A	0	270000.0
EM-TEUI-LUS	MA	Land Unit Scale Inventory	Acres	N/A	0	0
EM-HR-I	MA	Heritage Resource Inventories	Acres	N/A	72.0	100.0
EM-RU-M	MC	LRMP Monitoring of Rec Use	Survey Days	N/A	149.0	129.0

### RECREATION MANAGEMENT (NFRW)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
RM-PAOTS-TOT	OP	Seasonal Capacity Available	PAOT Days	N/A	683,000	674,700
RM-TRAIL-SYS	OP	Recreation Trails on System	Miles	N/A	0	1,479.0
RM-SU-ADMIN	OP	Rec Spcl Use Permits Total	Permits	N/A	35	63
RM-REC-USE-T	OP	Recreation Use Total	M Visits	N/A	0	1,804.0
TR-MAINTN	MT	Trail Maintenance	Miles	N/A	0	1043.7

### WILDERNESS MANAGEMENT (NFRW)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
RM-WLDTR-SYS	OP	Wilderness Trails on System	Miles	N/A	0	1,427
TR-MAINTN	MT	Trail Maintenance	Miles	N/A	606	647.9
RM-HERT-EVAL	OP	Heritage Sites Evaluated	Sites	N/A	12	4
RM-HERT-INTP	OP	Heritage Sites Interpreted	Sites	N/A	4	4
RM-HERT-P&P	OP	Heritage Sites Preserve/Protect	Sites	N/A	40	70

**WILDLIFE HABITAT MANAGEMENT (NFWF)**

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
WL-STRUCTURE	<5000 IN >=5000RP	Wildlife Structures	Structures	N/A	0	0
WL-THAB-RES	<5000 IN>= 5000 RP/IN	Terrestrial Wild. Habitat Restored/Enhanced	Acres	5000	1090	1090

**INLAND FISH HABITAT MANAGEMENT (NFWF)**

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
WL-IF-STR-RE	<5000 IN>= 5000 RP/IN	Inland Fish Stream Restored/Enhanced	Miles	N/A	0	7
WL-IF-LAK-RE	<5000 IN>= 5000 RP/IN	Inland Fish Lake Restored/Enhanced	Acres	N/A	0	0

**ANADROMOUS FISH HABITAT MANAGEMENT (NFWF)**

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
WL-AF-STE-RE	<5000 IN>= 5000 RP/IN	Anadromous Fish Stream Restored/Enhanced	Miles	N/A	23	33
WL-AF-LAK-RE	<5000 IN>= 5000 RP/IN	Anadromous Fish Lake Restored/Enhanced	Acres	N/A	0	0

**TE&S HABITAT MANAGEMENT (NFWF)**

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
WL-TE-STRUC	<5000 IN >=5000 RP	TES Structures	Structures	N/A	0	0
WL-TE-AQ-SRE	<5000 IN>= 5000 RP/IN	TE&S Aquatic Stream Habitat Restored/Enhanced	Miles	N/A	0	0
WL-TE-AQ-LRE	<5000 IN>= 5000 RP/IN	TE&S Aquatic Lake Habitat Restored/Enhanced	Acres	N/A	0	0
WL-TE-HAB	LT	TES habitat Restored/Enhanced	Acres	64	360	360
WL-BIO-A&E	MB	Bio Assess/Evaluation	Tasks	N/A	0	271
WL-CON-TIE	OP	T&E Species Conserv Actions Acemp	Species	N/A	0	0
WL-CON-S	OP	Sensitive Species Conserv Actions Acemp	Species	N/A	0	0

**GRAZING MANAGEMENT (NFRG)**

<b>MAR Code</b>	<b>Work Activity</b>	<b>Definition</b>	<b>Unit of Measure</b>	<b>Forest Plan Projection</b>	<b>FY00 Target</b>	<b>FY 00 Accomplishment</b>
RG-STRUC-IMP	<5000 IN >=5000 RP	Range Structural Improvements	Structures	N/A	9	9
RG-GZ-ADM-ST	OP	Grazing Allotments Administered to Standard	Permits	N/A	22	20
RG-GZ-ADM-T	OP	Grazing Allotments Administered - Total	Allotments	N/A	0	0
RG-GZ-NEPA	OP	Grazing Allotments Analyzed/Implemented	Allotments	N/A	0	0
RG-GZ-SH-GTS	OP	Grazing - Sheep & Goats	Hd Months	N/A	0	12266.0
RG-GZ-CA-HOR	OP	Grazing - Cattle & Horses	Hd Months	N/A	0	19549.0
RG-RLRP-NEPA	OP	Range Restored/Protected NEPA Decisions	Acres	N/A	15000.0	15000.0

**RANGELAND VEGETATION MANAGEMENT (NFVW)**

<b>MAR Code</b>	<b>Work Activity</b>	<b>Definition</b>	<b>Unit of Measure</b>	<b>Forest Plan Projection</b>	<b>FY00 Target</b>	<b>FY 00 Accomplishment</b>
RG-NOX-WD-TR	LT	Noxious Weed Treatment	Acres	500	1690.0	1150.0
RG-N-STR-IMP	LT	Range Non-Structure Imp.	Acres	0	0	0
RG-MON-EVAL	OP	Rangeland Monitored/Evaluated	Acres	N/A	3,000	3,000

**TIMBER SALES MANAGEMENT (NFTM)**

<b>MAR Code</b>	<b>Work Activity</b>	<b>Definition</b>	<b>Unit of Measure</b>	<b>Forest Plan Projection</b>	<b>FY00 Target</b>	<b>FY 00 Accomplishment</b>
FM-FUELS-BD	PM	Fuels Treatment - BD	Acres	N/A	1300.0	712.0
FM-VOL-OFF-B	EC	Volume Offered, New	MBF	N/A	7.0	0.5
FB-VOL-SSS-B	EC	Volume Offered, SSF	MBF	N/A	16.2	0
FM-VOL-OFF-N	EC	Volume Offered, New	CCF	N/A	12460.0	890.0
FM-VOL-OFF-S	EC	Volume Offered, SSF	CCF	N/A	28836.0	0
FM-VOL-SLD-B	EC	Volume Sold	MBF	N/A	21.0	0.5
FM-VOL-SOLD	EC	Volume Sold	CCF	N/A	37400.0	890.0
FM-VOL-HV-TB	EF, EG, EH	Volume Harvested - Total	MBF	N/A	0	15000.0
FM-VOL-HAR-T	EF, EG, EH	Volume Harvested - Total	CCF	N/A	0	26700.0

### FOREST VEGETATION MANAGEMENT (NFVW)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
FM-REF-APPR	EK	Reforestation	Acres	900	781.0	831.0
FM-REF/KV	EK	Reforestation-KV	Acres	4657	368.0	349.0
FM-TSI-APPR	EL	Timber Stand Improvement	Acres	3600	525.0	122
FM-TSI-KV	EL	Timber Stand Improvement - KV	Acres	1200	0	0

### SOIL, WATER, AIR OPERATIONS (NFVW)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
SW-PSD-APP	OP	PSD Permit Applications Reviewed	Applications	NA	0	0

### SOIL, WATER, AIR IMPROVEMENTS (NFVW)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
SW-RES-IMP	<5000 IN >=5000 RP	Soil & Water Resource Imp.	Acres	50	172	237
SW-WS-CL-I	OP	Class I Watersheds	Watersheds	N/A	0	10
SW-WS-CL-II	OP	Class II Watersheds	Watersheds	N/A	0	8
SW-WS-CL-III	OP	Class III Watersheds	Watersheds	N/A	0	8

### NON-ENERGY RESOURCES (NFMG)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
MG-N-BNE-OP	GL/GR	N-Bond N-Energy Ops	Operations	N/A	59.0	56.0
MG-BNE-OP-PR	GL/GR	Bond N-energy Ops	Operations	N/A	1	1
MG-T-BNE-OP	GL/GR	Total Bond N-Energy Ops	Operations	N/A	0	29.0
MG-BNE-OP-AD	GL/GR	Bond N-energy Op Adm To Stnd	Operations	N/A	20.0	24.0
MG-NE-AC-PR	GE	N-Energy Acres Processed	Acres	N/A	0	0
MG-ABAN-SI-R	<5000 IN >=5000 RP	Abandoned Sites Reclaimed	Sites	N/A	0	0
MG-GEO-MA-AD	OP	Geologic Mgmt Areas Admin.	Areas	N/A	0	0
MG-GEO-PER	GL	Geologic Permits/Reports Comp.	Reports	N/A	0	0
MG-ENG-OP-AD	GL/GR	Energy Operations Adm. - Std.	Operations	N/A	0	0

**REAL ESTATE MANAGEMENT (NFLM)**

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
LN-LND-CLASS	OP	Landownership Admin	Cases	N/A	0	0
LM-SU-APPL	JA	Gen Special Use Applications Processed	Permits	N/A	15	13
LM-SUP-STD	OP	Auth Administered to Standard	Permits	N/A	30	109
LM-SUP-TOT	OP	Auth Administered - Total	Permits	N/A	0	120

**ACQUISITION OF LANDS (LALW)**

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
LA-OWNER-ADJ	IN	Ownership Adjustment	Acres	N/A	68.0	0
LA-EXCH-FEE	JB	Land Exchange - Fee	Acres	0	0	0
LA-EXCH-PART	JB	Land Exchange - P/Interest	Acres	N/A	0	0
LA-ROW-ACQ	IN	Rights-of-Way Acquired	Cases	N/A	0	0

**LAND LINE LOCATION (NFLM)**

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
LM-LL-NEW	IN	Land Line Location	Miles	N/A	4.0	4.0
LM-LL-MAINT	MT	Land Line Maintenance	Miles	N/A	0	20.0
LM-S-BOUNDRY	IN	Special Area Boundary Location	Miles	N/A	0	0

**ROAD MAINTENANCE (CMRD)**

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
RD-DECOMM	OM	Roads decommissioned	Miles	N/A	20	19.9

**LAW ENFORCEMENT OPERATIONS (NFLE)**

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY00 Target	FY 00 Accomplishment
LE-INCIDENTS	LD	Incidents	Incidents	N/A	0	0
LE-COOP-AGRE	LB	Cooperative Agreements	Agreements/1	N/A	0	0



**FOREST ROAD RE/CONSTRUCTION (CMRD)**

<b>MAR Code</b>	<b>Work Activity</b>	<b>Definition</b>	<b>Unit of Measure</b>	<b>Forest Plan Projection</b>	<b>FY00 Target</b>	<b>FY 00 Accomplishment</b>
CR-RD-RECONS	RP	Road Reconstruction	Miles	0-26	3.2	13.1

**FOREST TRAIL CONSTRUCTION (CMTL)**

<b>MAR Code</b>	<b>Work Activity</b>	<b>Definition</b>	<b>Unit of Measure</b>	<b>Forest Plan Projection</b>	<b>FY00 Target</b>	<b>FY 00 Accomplishment</b>
CR-TR-CNST-R	<5000 IN >=5000 RP	Trail Construction/ Reconstruction	Miles	20	11.3	29.2

**FOREST SERVICE FIRE PROTECTION (WFPR/WFHF)**

<b>MAR Code</b>	<b>Work Activity</b>	<b>Definition</b>	<b>Unit of Measure</b>	<b>Forest Plan Projection</b>	<b>FY00 Target</b>	<b>FY 00 Accomplishment</b>
FP-FFPC	PJ	FF Protection Capability	Chains/hour	N/A	0	90.0
FP-FUELS-APP	PM, PN	Fuels Treatment	Acres	6265	9000.0	9434.0

**HUMAN RESOURCES**

<b>MAR Code</b>	<b>Work Activity</b>	<b>Definition</b>	<b>Unit of Measure</b>	<b>Forest Plan Projection</b>	<b>FY00 Target</b>	<b>FY 00 Accomplishment</b>
HR-YCC-PART		YCC Participation	Enrollee Weeks	N/A	0	0
HR-SCSEP		SCS Participation	Enrollee Hours	N/A	0	0
HR-VOLN-NF		NFS Program Volunteers	Enrollee Years	N/A	0	0
HR-HOSTED-PR		Hosted Program/Other HRT	Enrollee Years	N/A	0	0

## **B. ARE THE DOLLARS AND WORKFORCE COSTS OF THE PLAN IMPLEMENTED AS EXPECTED**

Table 2 shows the amount of funds allocated to and expended by the Forest for the last three fiscal years (1998-2000).

Table 3, "Projected Forest Funding Level," displays the actual FY 2000 and projected FY 2001 Forest budget by resource function. Dollars have been adjusted to constant 2000 values for Tables 2 and 3.

Throughout this report various types of funding are mentioned. Much of the Forest's funding is obtained directly through congressional appropriations. Additional funding comes from trust funds that include deposits made to the Forest Service by timber purchasers and range permittees to cover the cost of resource protection. Other funds are derived through partnerships with organizations and private parties on a cost share or matching fund basis. The following sections describe these different funding types.

### **APPROPRIATED FUNDS FOR NATIONAL FOREST SYSTEM LANDS**

These are dollars appropriated by Congress to provide for the protection, management, and utilization of national forest lands.

### **RANGE BETTERMENT FUNDS**

A portion of grazing fee receipts finances the range betterment program on national forest lands. Fifty percent of grazing fee receipts are returned to the Forest to fund installation of structural and nonstructural range improvements such as seeding, fence construction, weed control, water development, and fish and wildlife habitat enhancement. It is regional policy that the range permittee cooperates by splitting the cost of labor and supplies. Often the permittee cooperates in these activities by supplying the labor needed to implement and maintain the improvements.

### **PERMANENT AND TRUST FUNDS**

#### *Brush Disposal (BD)*

After timber harvest operations, it is often necessary to dispose of brush and logging slash to protect and maintain national forest resources. Timber sale contracts require that the timber purchaser complete this work when economical or expedient, or make a deposit to cover the cost when it is more practical for the Forest Service to complete the brush disposal work.

### Timber Salvage Sales

Timber Salvage Sale funds are used for the design, engineering, and supervision of road construction for salvage sales, for sale preparation, and for administration of salvage timber harvest. These funds are used to salvage insect infested, dead, damaged, or down timber, and to remove associated trees for stand improvement. Part of the receipts from timber salvage sales are deposited in this account and used to prepare and administer future salvage sales.

### COOPERATIVE WORK, KNUTSON-VANDENBERG (KV) FUNDS

These funds are deposited by timber purchasers and used primarily for resource activities which improve the future productivity of the renewable resources on timber sales (i.e. reforestation, timber stand improvement, etc.)

### Cooperative Work, Other (CWFS-Other) Funds

CWFS-Other funds are derived from deposits received from cooperators for protecting and improving resources as authorized by trust agreements. These deposits are used for the construction, reconstruction, and maintenance of roads, trails, and other improvements, and for timber scaling services, fire protection, and other resource purposes. Cooperative road maintenance deposits are made by commercial users of the forest road system in lieu of actually performing their commensurate share of road maintenance. The Forest Service uses these deposits in conjunction with the congressional appropriated funds to provide maintenance for system roads.

### CHALLENGE COST SHARE DOLLARS

Challenge cost share agreements are federal funds matched by various states, and private non-profit organizations to jointly develop, plan, and implement projects to enhance specific resource improvement activities. These funds are currently permitted for use in recreation, wildlife, and fish cost-share programs.

**TABLE 2**  
**COMPARISON OF PROJECTED FUNDING LEVELS, ALLOCATIONS,**  
**AND EXPENDITURES**

Funding Description Year of \$\$ (Factor)>	Fiscal Year 1998		Fiscal year 1999		Fiscal year 2000	
	Allocation (FY 1998\$) 1.033224**	Expenditures (FY 1998\$) 1.033224**	Allocation (FY 1999\$) 1.019976**	Expenditures (FY 1999\$) 1.019976**	Allocation (FY 2000\$) 1	Expenditures (FY 2000\$) 1
<b>General Administration</b>	\$ 1,299	\$ 1,460	\$ 1,060	\$ 1,142	\$ 710	\$ 706
<b>Recreation, Trails Mtc. And Wilderness</b>	\$ 1,660	\$ 1,672	\$ 1,692	\$ 1,755	\$ 1543	\$ 1,538
<b>Wildlife and Fish</b>	\$ 987	\$ 1,002	\$ 1,025	\$ 1,096	\$ 1123	\$ 918
<b>Range</b>						
- Range	\$ 366	\$ 245	\$ 395	\$ 225	\$ 203	\$ 195
- Noxious Weeds	57	213	107	272	121	271
<b>Soil, Air and Water</b>	\$ 325	\$ 400	\$ 291	\$ 329	\$ 235	\$ 381
<b>Minerals</b>	\$ 340	\$ 361	\$ 302	\$ 338	\$ 278	\$ 309
<b>Timber</b>						
- Timber Management	\$ 971	\$ 1,030	\$ 900	\$ 940	\$ 578	\$ 441
- Vegetative Imp	878	803	233	462	712	561
- KV Reforest/TSI/ Other	1,420	1,119	1,775	1,020	1305	802
- CWFS Other-Trust Fund	460	543	178	129	100	135
- Timber Salv. Sales	2,480	2,010	2,142	\$ 1,779	2100	1,601
<b>Protection</b>						
- Fire Protection & Fuels	\$ 3,911	\$ 3,938	\$ 3,636	\$ 4,125	\$ 3621	\$ 4,888
- Law Enforcement	132	130	112	81	86	120
- Brush Disposal	413	195	224	149	220	201
<b>Lands</b>						
- Special Uses/Land Exchanges	\$ 155	\$ 221	\$ 164	\$ 609	\$ 119	\$ 115
- Landline Location	108	113	87	89	79	81
<b>Facilities</b>						
- Facility Mtc.	\$ 170	\$ 177	\$ 184	\$ 189	\$ 218	\$ 171
- Road Mtc.	687	678	674	885	640	827
- Facility Const-Forest Adm	13	22	71	181	60	295
- Pre Const-Capital Inv. Roads	260	364	237	464	184	334
- Trail Const/Reconst	351	346	51	350	362	369
<b>Ecosystem Management</b>	\$ 576	\$ 538	\$ 660	\$ 639	\$ 528	\$ 404
<b>Totals</b>	\$18,019	\$17,579	\$16,200	\$17,248	\$15,149	\$15,663

\*\*Dollars have been adjusted to constant 2000 values for Tables 2 and 3.

**TABLE 3****FOREST FUNDING LEVEL FOR FY 2000 AND TENTATIVE FY 2001**

<b>FY 2000 Funds</b>	<b>FY 2001 Funds</b>	<b>Funding Description</b>	<b>FY 2001</b>	<b>FY 2002</b>
NFGA	Deleted	<b>General Administration</b>	---	\$
NFHR, NFRM, NFWM, PAMF- Rec, PAMT	NFRW	<b>Recreation and Wilderness</b>	\$ 864	\$
NFAF, NFIF, NFTE, NFWL	NFWF	<b>Wildlife and Fish</b>	\$ 1,267	\$
NFRG	NFRG	<b>Range</b>	\$ 200	\$
NFRV	NFVW	- Range	286	\$
NFSO, NFSI	NFVW	- Noxious Weeds		\$
NFMG	NFMG	<b>Soil, Air and Water</b>	\$ 236	\$
NFTM	NFTM	<b>Minerals</b>	\$ 388	\$
NFFV	NFVW	<b>Timber</b>	\$ 126	\$
CWKV	CWKV	- Timber Management	721	\$
CWFS	CWFS	- Vegetative Imp	910	\$
SSSS	SSSS	- KV Reforest/TSI/Other	100	\$
		- CWFS Other-Trust Fund	1,814	\$
		- Timber Salv. Sales		\$
WFPR, WFHF	WFPR, WFHF	<b>Protection</b>	\$ 4,933	\$
NFLE	NFLE	- Fire Protection & Fuels	79	\$
BDBD	BDBD	- Law Enforcement	281	\$
		- Brush Disposal		\$
NFLA, LALW, NFLL	NFLM, LALW	<b>Lands</b>	\$ 306	\$
		- Special Uses/Land Exc&Acq./Landline Location		\$
PAMF/PAFC	CMFC	<b>Facilities and Roads</b>	\$ 428	\$
PAMR/PARD	CMRD	- Facility Maint./Facility Construction	1,192	
PAMT/PATC	CMTL	- Road Maint./Pre Const- Capital Inv. Roads	738	
		- Trail Const./Reconst./ Maint.		
NFIM, NFPN	NFIM, NFPN	<b>Ecosystem Management</b>	\$ 764	\$
		<b>Totals</b>	\$15,733	\$

## Fund Code changes in 2001:

- General Administration was deleted in 2001. Funding for general administration was included in all other fund types.
- Funding for Wildlife and Fish collapsed from four fund codes (NFAF, NFIF, NFWL, NFTE) to one (NFWF).
- Funding for Range Vegetation, Forest Vegetation, Soil, Water, and Air collapsed from individual fund codes (NFRV, NFFV, NFSO, NFSI) to one (NFVW).
- Funding for Special Uses and Landline Location collapsed from two fund codes (NFLA, NFLL) to one (NFLM).
- Funding for Facility Maintenance and Construction collapsed from two fund codes (PAMF, PAFC) to one (CMFC).
- Funding for Road Maintenance and Pre-Construction collapsed from two fund codes (PAMR, PARD) to one (CMRD).
- Funding for Trail Construction and Maintenance collapsed from two fund codes (PAMT, PATC) to one (CMTL).

## **C. FOREST PLAN MONITORING REQUIREMENTS**

Monitoring and evaluation results are summarized and discussed on the following pages. Each monitoring item lists:

- What is being measured;
- Frequency of measurement;
- Reporting period;
- The monitoring results; and
- The evaluation of the monitoring results.

The items are arranged by resource and follow the requirements in the Nez Perce Forest Plan (Table V-1).

# WILDLIFE

## ITEM 1c: BIG-GAME HABITAT CARRYING CAPACITY

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability That Would Initiate Further Evaluation:** Significant trend deviations (evaluated at 5-year intervals) from planned or expected forage-generating activities or events (timber harvest, prescribed fire, and wildfire).

### Forage Production

#### Monitoring Results:

Timber harvest (i.e., clear-cut, seed tree, and shelter wood), prescribed fire, and wildfire acreages are used as forage production indices. Forage production for elk and deer in the coniferous forests of north central Idaho is related primarily to shrub, grass, and form stages of forest plant succession. Creating openings in forest stands by timber harvest and fire typically increases elk and deer forage. The Forest Plan projected an annual average of 4,585 acres of regeneration timber harvest and 5,000 acres of prescribed fire for elk and deer winter range. The Forest Plan also estimated wildfire acreage (based on a running 10-year average) to be approximately 4,700 acres per year.

Projected acreages for each variable identified in the Forest Plan, and their FY 99 target and accomplishments, are depicted on the following tables.

**Big Game Forage Produced by Timber Harvest**

Fiscal Year	Forest Plan Projection	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Thousands of Acres	4,585	2,911	2,544	2,521	2,931	2,616	2,304	2,554	1,454	2,419	489	721	495	292

#### Evaluation of Monitoring Results:

Since Forest Plan implementation, timber harvest that increased big game forage has averaged about 1865 acres per year (41 percent of the Forest Plan projection). Though timber harvest has fallen short of planned acreages, wildfires have helped to compensate for the shortfall.

## Big Game Forage Produced by Wildfire & Wildland Fire Used for Benefits

Fiscal Year	Forest Plan Projection	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Acres Burned	4,683	105,943	8,888	643	2,207	44,966	4,700	9,118	26	40,132	29	233	1,278	33,097

### Summer Elk Habitat

The Forest Plan identified approximately 1,887,000 acres of elk summer range on the Nez Perce Forest. Of this amount, approximately 866,000 acres (46 percent) of elk summer range are within the Forest's three designated wildernesses. The Forest Plan designated elk summer range effectiveness objectives at 25 percent on approximately 2,07,132 acres; 50 percent on approximately 463,372 acres; 75 percent on approximately 274,033 acres; and 100 percent on approximately 942,258 acres. The "Guidelines for Evaluating and Managing Elk Habitat in Northern Idaho" are used to determine if land management activities meet the elk summer habitat effectiveness objectives depicted in the Forest Plan.

#### Monitoring Results:

Compliance with summer objectives for projects implemented in FY 2000 has been excellent.

#### Evaluation of Monitoring Results:

Current compliance with Forest Plan elk objectives is excellent, however a few areas remain below objective for a variety of reasons. Assessment of forest-wide elk summer range conditions continues to indicate:

1. Elk habitat effectiveness objectives are being met or exceeded on about 78 percent of the Forest's elk summer range; and
2. Needed adjustments to meet Forest Plan elk objectives in some cases may conflict with motorized vehicle access objectives more than originally anticipated.

The Forest completed a Forest Plan minor amendment (Forest Plan Amendment #23) process to correct original Forest Plan analysis unit errors and resolve many incompatibilities created by original objective assignments.

### Moose Winter Range (MA 21)

Grand fir and pacific yew canopy cover and yew browse are important components of moose winter habitat. Timber harvest on moose winter range is limited to 5 percent of



MA 21, per decade. No acres of MA 21 were harvested in FY 2000. The acreage harvested was well below the 5 percent limit.

**Monitoring Results:**

No site-specific or MA 21 specific monitoring was done on the Forest in FY 2000. The acres harvested in FY 2000 are well below the 5 percent per decade limit and within Forest Plan standards. The reduction in clear-cut/burn prescriptions used in recent years in timber management have virtually eliminated risks to moose habitats.

**Evaluation of Monitoring Results:**

Forest Plan direction to limit timber harvest to 5 percent per decade has been followed for projects initiated under the Forest Plan. Lack of funding, major changes in harvest strategies, reduced priority, and inadequate staff time has precluded the need to gather management data or conduct further research to better describe preferred moose winter range characteristics. Reasons related for limiting the clear cut/burn harvest acres deal with yew's susceptibility to fire. Vegetation treatment strategies used currently are not considered as harmful to winter moose habitat.

**ITEM 1d: NON-GAME HABITAT**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability That Would Initiate Further Evaluation:** Significant deviation from Forest standards on a project-by-project basis triggers further evaluation.

**Old Growth (MA 20)**

The Forest Plan states that no timber harvest will be considered in designated old growth forest until decade 10 and/or in replacement stands until decade 16. Recognition of risks from stand replacing fires in ponderosa pine habitat types have led to proposals to partially harvest some ponderosa pine old growth. No harvest occurred in MA 20 sites in FY 2000, but site-specific Forest Plan Amendments may allow selective harvest in low elevation, dry site forest types as needed to protect and restore large ponderosa pine and help prevent losses of related old growth habitats due to high-intensity fires. See Forest Plan Amendment #25.

**Monitoring Results:**

No field reviews of compliance with Forest Plan old growth standards were done in FY 2000. Database review of acres harvested in FY 2000 found that no stands designated as old growth were harvested. Increased awareness of stand replacement fire risks in ponderosa pine and dry Douglas fir habitat types may stimulate future changes in how these dry conifer habitats are managed. The South Fork Clearwater River Landscape Assessment proposed interim recommendations (page 209) for

better meeting old growth needs in this habitat. Analysis would be required to see if these recommendations would be appropriate at a finer scale.

### **Evaluation of Monitoring Results:**

Compliance with Forest Plan standards for retention and protection of old growth from harvest has been accomplished throughout Forest Plan implementation. Improved criteria for determining old-growth sites is being used. These new criteria have promoted field surveys and interpretation resulting in improved determinations of old growth forests.

The effects of overstocked stands and drought stress leading to stand replacing forest fires, especially where retention of old growth is desired, continues to be a concern in ponderosa pine and some Douglas fir cover types. The use of fire or some form of silvicultural treatment to thin under story trees which act as "ladder fuels" is needed to protect designated old growth forests from unnatural fuel buildups and stand replacing fires.

### **Snag Habitats**

#### **Monitoring Results:**

Maintaining adequate numbers and size classes of snags on some sites throughout the managed landscape has been a challenge. Inventorying existing numbers of snags on a landscape scale is proving to be a similar challenge. Maintaining snags in some managed, particularly developed, areas is complicated by fuel wood gatherers, prescribed fire slash treatments, and wind throw, particularly in developed areas.

### **Threatened and Endangered Species Habitats**

#### **Monitoring Results:**

Management and protection of threatened, endangered, and sensitive (TES) wildlife and habitats are routinely evaluated in biological assessments/evaluations. In FY 2000, no instances of formal consultation were required for terrestrial species. Three hundred fifty (350) acres of terrestrial TES habitats were inventoried. Three hundred sixty (360) acres of TES habitat were improved.

**Gray Wolf:** Four individual wolf observation reports on or near the Forest were reported in FY2000 including an unconfirmed pack of 13 animals north of Boston Mountain. Single animals were reported south of Dixie, near Mocus Point (Hwy 12), and in Earthquake Meadows. There is no evidence of livestock depredation reported on the Forest to date, as has occurred in Montana, central Idaho, or Yellowstone Park.

**Grizzly Bear:** No observations of grizzly bears were reported in FY 2000. To date no confirmation of permanent grizzly occupation exists on the Forest.

**Peregrine Falcon:** The peregrine falcon was delisted on August 25, 1999. Monitoring will continue for 5 years. The Shingle next exhibited no activity in FY2000. The Sheep Gulch nest was active in FY2000, and produced 3 young.

**Bald Eagle:** The bald eagle was down-listed to threatened status in August 1995, by the U.S. Fish and Wildlife Service. Bald eagles have been monitored through the Forest's participation in the annual bald eagle mid-winter census. Transects and counts are shown below.

Survey Route	Salmon River: White Bird to Vinegar Creek		S.F. Clearwater: Farrens Creek to Crooked River		M.F. Clearwater: Clear Creek to Selway		Grand Total
	Adult	Immature	Adult	Immature	Adult	Immature	
Age							
1984	1	0	3	1	9	0	14
1986	2	0	0	0	6	2	10
1987	1	0	1	0	5	2	9
1988	2	1	2	0	10	2	17
1989	2	0	0	0	4	3	9
1990	5	0	0	0	1	1	7
1991	3	0	1	1	4	4	13
1992	2	0	3	0	12	4	21
1993	10	5	0	0	7	1	23
1994	2	1	3	1	9	3	19
1995	6	0	3	6	15	3	33
1996	4	0	2	0	3	1	10
1997	3	0	3	0	5	1	12
1998	11	1	2	1	No data	No data	15
1999	3	0	3	0	5	1	12
2000	10	0	3	0	No data	No data	13

### Evaluation of Monitoring Results:

The winter survey routes located on the Forest yielded 13 adult birds and 0 immature bird. This was similar to recent years, though not as high as 1995 (33 birds). Weather trends, including the recent El Nino event, may partially explain such variances. Bald eagles are considered stable or increasing in the U.S. in general.

## Forest Service Sensitive Animal and Plant Species Program

### Monitoring Results:

Inventories of Neotropical migratory bird habitats at previous sampling sites were done in FY 2000. Funding constraints limited the Forest's potential to monitor other sensitive animal populations extensively.

In FY 98 the Canadian lynx was proposed for federal listing. Federal listing occurred in FY 2000. Conservation assessments and/or strategies have been developed on

broad, landscape scales for the lynx, white-headed woodpecker, black-backed woodpecker, Coeur d'Alene salamander, pine martin, fisher, lynx, wolverine, mountain quail, Townsend's big-eared bat, flammulated owl, and boreal owl. These assessments are being used on the Forest to help assess project impacts and provide supplemental guidance in habitat planning for future years.

Review of biological evaluations and conservation assessments suggest that increased harvest removal of firs from overstocked ponderosa pine sites along lower elevation river corridors could improve habitats for white-headed woodpecker and flammulated owls. Increased application of prescribed fires in selected forest stands could help improve habitats for several species including black-backed woodpeckers, lynx, and possibly mountain quail. Continued reductions in open road densities may help improve habitat quality for lynx, fisher, and wolverine. Thinning and selective harvest of firs in dry forest types could help restore habitats for some sensitive wildlife species.

The Nez Perce National Forest continued long-term monitoring of Clustered ladyslipper (*Cypripedium fasciculatum*) in cooperation with Pacific Northwest Research Station at Corvallis Oregon. The population is located in the South Fork of the Clearwater River in a Douglas-fir/Ninebark habitat type. Monitoring began in the growing season of 1998 one year after a silvicultural treatment and prescribe burn. Monitoring has continued each year since 1998. Objective of the monitoring is to measure the response of Clustered ladyslipper to prescribe fire. The monitoring includes both unburned and burned plots. Number of plants, flowering plants, number of flowers per inflorescence, and capsule production were recorded each year. Monitoring to date suggests that the most detrimental effect of fire to long-term population viability may be the loss of appropriate microhabitat. Plants are able to grow and reproduce in open stands as long as they have sufficient cover in the understory. The understory provides protection from predation as well as direct sunlight. Fire affects the population by reducing or eliminating this protective layer. Population status and fruiting success will continue to be measured in Fy2001 and into the future.

#### **ITEM 1e: ACRES OF BIG-GAME HABITAT IMPROVEMENT**

**Frequency of Measurement:** Annually (October 1, 1999 - September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** More than one year of variability from planned improvement acreages, excepting variances due to extreme fire conditions.

#### **Wildlife Habitat Improvement**

**Monitoring Results:** In FY 2000, the Forest accomplished a total WL/TE habitat target of 1450 acres. Prescription burning accounted for the improvements.

**Cumulative Acres of Big Game Habitat Improved  
(Prescribed Fire, Timber Harvest, Wildfire, and Wildland Fire Used for Benefits)**

Fiscal Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Acres	109,854	13,432	10,062	7,738	49,907	7,284	12,847	2,030	44,351	3,048	3,055	6,623	33,389

**Evaluation of Monitoring Results:** Improvement of elk and deer winter ranges has fallen short of the annual target of 5,000 acres by at least 41 percent. The cumulative shortfall over 10 years is at least 30,000 acres below Forest Plan projections.

**ITEM 10: POPULATION TRENDS OF INDICATOR SPECIES - WILDLIFE**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** FY 2000

**Variability Which Would Initiate Further Evaluation:**

Variability thresholds which will trigger further evaluation for each species must be tailored to each species based on the amount of existing data on a given species, natural population fluctuations; and for game species, impacts of harvesting on populations. Evaluation for big-game species will be done cooperatively with Idaho Department of Fish and Game.

Variability thresholds for non-game and Threatened and Endangered species for which data is currently limited, can only be determined after sufficient baseline population data is collected. Several years of population data must be collected and sample sizes must be adequate before variability thresholds can realistically be estimated.

**Discussion:** This section covers those Management Indicators Species that were not previously discussed in this report in the Threatened, Endangered, or Sensitive wildlife species categories.

**Elk**

Elk herds are the product of habitat quality, influenced by the effects of weather, hunting, and predation. Forest management practices directly affect habitat quality and hunter access. To determine trends in elk herds within a managed forest environment, the Idaho Department of Fish and Game routinely conducts elk winter census surveys.

To address weaknesses in elk herd productivity, the Nez Perce and Clearwater national Forests have partnered with Idaho Department of Fish and Game and other interested parties to help improve conditions through the Clearwater Elk Initiative.

**Monitoring Results:**

Elk surveys were not completed on any Nez Perce National Forest hunt units (except units 19 and 20) in FY 2000. Winter census surveys since 1988 have yielded the following results:

**Elk Population<sup>1</sup>**

Unit <sup>2</sup>	15	16	16A	17	19	20
1988	---	---	1028 +/- 261	4506 +/- 535	---	---
1989	---	---	---	---	1467 +/- 37	1044 +/- 48
1990	856 +/- 81	818 +/- 122	---	---	---	---
1991	---	---	961 +/- 201	3783 +/- 279	---	---
1992	---	---	---	---	1497	1237 +/- 61
1993	1236 +/- 310	1432 +/- 156	---	---	---	---
1994	---	---	---	---	---	1115
1995	---	---	475 +/- 114	4995 +/- 555	---	---
1996	1544	1148	---	---	1566	1277
1997	No data	No data	No data	No data	No data	No data
1998	17.5 +/- 7.5	No data	No data	No data	No data	No data
1999	No data	No data	539	3188	No data	No data
2000	No data	No data	No data	No data	2143 +/- 228	854 +/- 869

<sup>1</sup> Represents total population estimate of animals on the winter range of each unit.

<sup>2</sup> Idaho Department of Fish and Game, Big Game Management Unit

### Bull:Cow Ratios

Unit	15	16	16A	17	19	20
<b>Objective<sup>1</sup></b>	>20	>20	>25	>25	>25	>25
1988	---	---	35 +/- 14	26 +/- 5	---	---
1989	---	---	---	---	21 +/- 2	26 +/-4
1990	20 +/- 5	10 +/- 5	---	---	---	---
1991	---	---	23 +/- 8	22 +/- 3	---	---
1992	---	---	---	---	17 +/- 2	31 +/- 5
1993	11 +/-5	22 +/- 4	---	---	---	---
1994	---	---	---	---	---	19
1995	---	---	19.6 +/- 20.6	20.9 +/- 3.7	---	---
1996	9.6	11.9	---	---	15.0	21.4
1997	No data	No data	No data	No data	No data	No data
1998	17.5 +/- 7.5	No data	No data	No data	No data	No data
1999	No data	No data	12.7	16	No data	No data
2000	No data	No data	No data	No data	16 +/- 4.5	23.3 +/-4.2

### Calf:Cow Ratios (Calves per 100 Cows)

Unit	15	16	16A	17	19	20
1988	---	---	32	27	---	---
1989	---	---	---	---	24	22
1990	39	16	---	---	---	---
1991	---	---	30	24	---	---
1992	---	---	---	---	32	34
1993	43 +/- 17	21 +/- 4	---	---	---	---
1994	---	---	---	---	---	24
1995	---	---	14.7 +/- 5.1	22.2 +/- 3.2	---	---
1996	32.4	17.9	---	---	20.1	15.2
1997	No data	No data	No data	No data	No data	No data
1998	32.8 +/- 10	No data	No data	No data	No data	No data
1999	No data	No data	21.5	11.9	No data	No data
2000	No data	No data	No data	No data	26.2 +/-4.2	20.2 +/-3.1

<sup>1</sup> Idaho Department of Fish and Game, 5-year Elk Management Plan Objective (1991 to 1995); expressed as number of bulls per 100 cows. Note: Hunting regulations and season structure changes implemented beginning in 1998 by IDFG were designed to help address bull:cow ratios.

### **Evaluation of Monitoring Results:**

Reduced budget levels allowed for Idaho Department of Fish and Game to winter count unit 19 and 20 in FY 2000. FY2000 results may have been skewed by temporary displacement of animals by the fires of 2000.

Mild winters, varying degrees of hunter success (influenced largely by hunting season weather conditions) can also affect population data within any given hunting unit.

## **Moose**

### **Monitoring Results:**

Moose populations are not surveyed on the Nez Perce Forest by the Department of Fish and Game with any techniques capable of making accurate population estimates.

### **Evaluation of Monitoring Results:**

Moose populations appear to be relatively stable based on incidental information and sightings. Hunter permit numbers have increased substantially in recent years.

## **Bighorn Sheep**

### **Monitoring Results:**

**Bighorn Sheep Total Counts**

<b>Unit</b>	<b>17</b>	<b>19</b>	<b>20</b>
<b>1991</b>	52	000	000
<b>1992</b>	---	52	106
<b>1993</b>	---	60	66*
<b>1994</b>	28	---	87
<b>1995</b>	43	---	---
<b>1996</b>	No data	56	78
<b>1997</b>	No data	No data	No data
<b>1998</b>	No data	No data	No data
<b>1999</b>	No data	No data	No data
<b>2000</b>	No data	53	51

### **Evaluation of Monitoring Results:**

Idaho Dept. of Fish & Game biologists suggest that FY2000 data may have been influenced by temporary displacement of animals due to short-term habitat changes resulting from the fires of 2000.



## Pileated Woodpecker

### Monitoring Results:

Due to inadequate funding and other priorities, including Neotropical bird habitat sampling, no permanent transects were sampled in FY 2000. A summary of six years of data is displayed below for pileated woodpecker from the Green Creek Point transect.

#### Pileated Woodpecker Relative Abundance Index (Green Creek Point Transect Only)

Unit	Total
1988	9
1989	9
1990	6
1991	13
1992	6
1993	No survey
Unit	Total
1994	No survey
1995	No survey
1996	5
1997	No survey
1998	No survey
1999	No survey
2000	No survey

### Evaluation of Monitoring Results:

Available data from previous year counts suggest that pileated woodpecker numbers are relatively stable, especially in the Green Creek Point area. Routine observations of pileated woodpeckers in many habitats across the Forest suggest populations remain stable. Dramatic declines in clear-cutting of late seral and over mature grand fir stands since 1990 on the Forest have substantially helped reduce pressure on this bird's preferred habitats.

## Pine Marten/Fisher/Lynx

### Monitoring Results:

No surveys were conducted in FY2000.

Lynx habitat mapping in both the South Fork Clearwater River and Selway subbasins was completed in FY2000, and mapping of the Salmon River subbasin continues. No

lynx sightings were reported in FY2000 and no formal surveys for lynx presence have yet been initiated due to limited funding and personnel resources.

## **Goshawk**

### **Monitoring Results:**

No goshawk sightings or new nests were reported in FY 2000. No formal populations monitoring was done during FY2000. Dramatic overall declines in regeneration timber harvest, but particularly in late seral and over mature stands since the mid-1990's on the Forest has substantially reduced pressure on this bird's nesting habitats. Goshawks remain relatively common on the Forest.

### **ITEM 11: VALIDATION OF RESOURCE PREDICTION MODELS: WILDLIFE**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 2 to 6 years

**Variability Which Would Initiate Further Evaluation:** Major or significant refinements to wildlife models will be determined through coordination with other agencies including the Nez Perce Tribe and should be supported by research findings and will require Forest Plan amendment. Local biologist judgment and experience is currently being used to supplement and temper the elk guidelines model in specific management situations as recommended in the current guidelines.

### **Discussion:**

Evolving elk management issues and the influences of popular new off-road access vehicles are not addressed by the current summer elk habitat effectiveness guidelines.

The Forest has completed a cooperative effort to evaluate and offer recommendations to update the elk summer habitat guidelines. Wildlife biologists and agency managers from the Idaho Department of Fish and Game, Nez Perce Tribe, Clearwater National Forest, and Nez Perce National Forest completed the tasks explored by the Venture 20 effort. Biologists reviewed the elk model methodology for applicability and consistency, and have produced a draft of recommended changes.

A Forest Plan amendment or revision process with public input must be used if these recommended elk modeling modifications resulting from the Venture 20 exercise or similar coordination are formally proposed to update the Forest Plan.

# FISH

## ITEM 1f: FISH HABITAT IMPROVEMENTS

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** +/- 10 percent of Plan targets within a decade.

This section reports the annual accomplishments in fish habitat improvement on the Forest. These accomplishments are measured as miles of stream improved. This accounts for both the direct instream improvements and improvement activities upstream or upslope of the fish habitat that result in the improvement of fish habitat condition.

The projects that contribute to fish habitat improvement include a wide variety of activities, from direct instream work to projects that address ecosystem conditions or processes that result in the deterioration of fish habitat, such as sediment contributions. The projects that contribute to fish habitat improvement often contribute to other management accomplishments. These projects are often co-funded and reported based on the funding proportions. Fish habitat improvement is reported as those that contribute to anadromous fish (species that migrate to the ocean such as Chinook and steelhead), and inland fish (resident fish species that remain in inland waters such as west slope cutthroat trout and bull trout). Project accomplishments are reported based on their contribution to these groups and the relative funding proportions.

In FY 2000 the Forest accomplished 14 miles of anadromous fish habitat improvement with fisheries funding and 15 miles of improvement using other funds. While these projects also contributed to the improvement of inland fish habitat, there was no reported target accomplishment in this area. Examples of projects that contributed to this accomplishment include: implementation of the Deadhorse obliteration, continued road decommissioning in O'Hara Creek, and riparian and streamside planting in Peasley Creek and Meadow Creek watersheds.

### **ITEM 2e: FISH HABITAT TRENDS BY DRAINAGE**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 1 to 5 years (FY 1988 to 1992)

**Variability That Would Initiate Further Evaluation:** A measured decrease of 10 percent or more below established objectives.

This monitoring item reports the trend in fish habitat condition based on evaluation of 24 permanent monitoring stations across the Forest. These stations are measured 3 years out of 5 in order to evaluate the habitat trend over long periods. Assessment of the data collected at these monitoring stations is ongoing. At this point, results of this monitoring are not available.

### **ITEM 2p: IMPLEMENTATION OF PACFISH AND EFFECTS OF MANAGEMENT ACTIVITIES ON ANADROMOUS FISH**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

The Nez Perce Forest Plan was amended by PACFISH (Amendment 20) in response to the need for increased focus on at-risk fish species. Additionally, because some of these species are listed under the Endangered Species Act (ESA), ongoing and proposed management activities are evaluated in Biological Assessments (BA) to determine the effect of these management activities on these listed species. In FY 2000, the Forest continued to evaluate the effects of management activities on fisheries resources through the completion of Biological Assessments, and associated concurrence from the National Marine Fisheries Service (NMFS) and Fish and Wildlife Service (FWS).

# TIMBER

## **ITEM 1h-1: ALLOWABLE SALE QUANTITY (ASQ) SOLD BY COMPONENTS**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability Which Would Initiate Further Evaluation:** Any change in ASQ achievement altering the implementation of the long-term goals and objectives displayed in Forest Plan Chapter 2 (Forest-wide Management Direction) and Chapter 3 (Management Area Direction) may necessitate a Forest Plan Amendment.

### **Discussion:**

The allowable sale quantity (ASQ) is defined as the maximum timber value that may be sold during the planning period from the suitable land base. The ASQ is a sold-volume ceiling, and is monitored yearly against the average annual ceiling of chargeable volume for the decade. We are now in the second decade since the Forest Plan Record of Decision (ROD) was signed.

The ASQ increases from 1,080 MMBF in the first decade to 1,380 MMBF in the second decade (see page 6 of the ROD). In the past, the chargeable volume was divided into two components: regular (green live and recently dead resulting from insect/disease or fire) and non-interchangeable (pulp/cedar products and endemic mortality). Non-chargeable volume is not considered as part of the ASQ when it is sold, since this component was not used in calculating the ASQ, but is used to calculate accomplishments for Management Attainment Report (MAR) targets. Products that are included in the non-chargeable component include: firewood volume removed from unsuitable lands and volume too small or defective to meet regional utilization standards such as post and poles.

The Forest Plan does not identify how the additional 30 MMBF second decade volumes would be distributed to the regular and non-interchangeable components of the ASQ. For reporting purposes, we are assuming that the entire amount will be added to the regular portion; giving the Forest a 1,330 MMBF regular components and 50 MMBF of non-interchangeable ASQ. In addition, the Forest Plan does not identify which management areas will provide the extra volume.

Although this item is monitored on an annual basis, actual ASQ achievements will be based on the decade total. Yearly figures may be above or below the Forest Plan average annual ASQ figure of 138 MMBF per year (133 MMBF regular and 5 MMBF non-interchangeable).

The Forest Service reports accomplishments in hundreds of cubic feet (ccf). To maintain consistency and assure past figures are comparable, this report will continue to display volume in terms of MMBF. To convert MMBF to ccf, simply divide the MMBF values by .562, which is the Forest's average conversion factor. This cubic foot to board foot conversion factor is dependent on the height and diameter of the trees that are sold. On a yearly basis, some slight variability can be expected from the average Forest conversion of .562 which is used to convert the ASQ MMBF to ccf as indicated on the following table:

138 MMBF = 245,640 ccf
133 MMBF = 236,740 ccf
5 MMBF = 8,900 ccf

### Monitoring Results:

#### CHARGEABLE VOLUME SOLD IN FY 1988-2000\* (Volume Credited Toward ASQ on an Annual Basis)

	Components			
	Regular (133.0)	Non-Interchangeable (NIC) (5.)		Total
		Pulp	Cedar Products	
FY88	104.8	1.3	2.4	108.5
FY89	68.9	7.6	1.1	77.6
FY90	70.2	10.3	2.7	83.2
FY91	94.3	4.8	3.5	102.6
FY92	1.3	14.2	0.1	15.6
FY93	32.1	10.2	0.1	42.4
FY94	6.6	6.4	--	13.0
FY95	7.5	6.4	--	13.9
FY96	25.6	2.5	--	28.1
FY97	21.1	0.3	0.2	21.6
FY98	24.5	0.2	0.2	24.9
FY99	12.9	0.9	--	13.8
FY2000	0.5	0.0	--	0.5

\*The ASQ accomplishment breakdown was based on the Nez Perce Periodic Timber Sale Accomplishment Report accumulated as of September 30, 2000 (fiscal year summary).

The Forest continues to sell well below the Forest's ASQ, with this year's accomplishment being less than 1 percent of the regular component and 34 percent of the non-interchangeable component. The volume sold in FY00 was volume added to active timber sale contracts. In FY 00, the Forest sold 1.7 MMBF of the non-chargeable component (not counted as part of the ASQ). This was preliminary firewood (both commercial and personal use) and post/pole material. There was no new sale offered for sell in FY00.

### ASQ VOLUME SOLD TO DATE

Average Annual ASQ (2 <sup>nd</sup> Decade)	2000 Chargeable Volume Sold	Total Chargeable Volume Sold to Date	% of Average Annual ASQ Sold for First 3 Years
133.0/year (saw logs)	0.5 MMBF	37.9 MMBF	9
5.0 MMBF/year (pulp/cedar products)	0.0 MMBF	1.3 MMBF	8
Total 138.0 MMBF	0.5 MMBF	39.2 MMBF	9

% = Percent of average annual ASQ Sold for first 3 years of second decade.

### ITEM 1h-2: FINANCED VOLUME OFFERED ATTAINMENT BY COMPONENTS

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

#### **Discussion:**

Each year congress appropriates funding to accomplish annual timber targets. Given the fluctuation in funding from year to year, these annual “timber targets” are not necessarily the same as the Forest’s average annual ASQ. The achievement of financed “timber targets” differs from ASQ achievement in the following ways:

1. Accomplishment of “timber targets” takes place when a sale is offered, as opposed to ASQ accomplishment credited when a sale is sold. Normally, 45-60 days elapse between sale offering (advertisement in the local paper) and sale selling (signing contract). Sales offered near the end of the fiscal year may be credited toward the “timber target” in one fiscal year and credited toward ASQ in the next fiscal year.
2. Non-chargeable offered volume (firewood and posts/poles) may be included in “timber target” achievement. The ASQ volume does not include non-chargeable volume.

**Monitoring Results:** No sales were offered in FY00.

**CHARGEABLE AND NON-CHARGEABLE VOLUME OFFERED IN FY00\***

	Volume (MMBF) – FY 00
<b>Assigned Target</b>	21.0
<b>Accomplishment (Volume Offered)</b>	0.0
<b>% of Target</b>	0%

\*Target accomplishment based on year-end Periodic Timber sale Accomplishment Report (PTSAR) taken from the stars database year-end summary.

**Evaluation of Monitoring Results:** No sales were offered in FY00. In FY 00 the Forest failed to meet its financed timber target by 21.0 MMBF.

**ITEM 1i: ACRES TIMBER HARVESTED BY METHOD  
(INCLUDES PRECOMMERCIAL THINNING)**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** Unacceptable results of an interdisciplinary review.

**Monitoring Results:** Harvest took place on just over 2,000 acres in FY 00. This was an increase from FY 99 of approximately 650 acres. By far the majority was uneven-aged management (almost 55 percent). Even-aged management was implemented on 526 acres, or 26 percent of the harvest acres. The remainder, 19 percent of harvest acres, was various kinds of cuts that removed only portions of the stands, leaving fully stocked stands in place.

Harvest Type	Acres	Percent of Harvest
Precommercial Thinning	48	2.4%
Clear-cut	52	2.6%
Seed Tree Cut	474	23.5%
Final Removal	56	2.8%
Selection	1,099	54.6%
Salvage	254	12.6%
Intermediate	31	1.5%
<b>Total</b>	<b>2,014</b>	<b>100.0%</b>



	<b>Even-Aged Harvest</b>	<b>Uneven-Aged Harvest</b>	<b>Ratio</b>
<b>Planned Annual Harvest</b>	4,815	125	38.52
<b>FY00 Actual Harvest</b>	526	1,099	0.48

**Evaluation of Monitoring Results:** The Forest Plan envisioned the mix of harvest types to be weighted toward even-aged management. The current **mix** is a deviation from that planned mix. Because the "total acres harvested" is below the maximum shown in the plan, the **actual acres** of uneven-aged harvest are within the planned acres for the decade. This deviation from the planned mix of harvest will not result in serious consequences.

## **ITEM 2f: VEGETATIVE RESPONSE TO TREATMENTS**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years (FY 1998)

**Variability That Would Initiate Further Evaluation:** Data and analysis that would indicate that projected yields from regenerated stands are in error.

**Monitoring Results:** Permanent Growth Plots provide a means to assess and predict the forest growth response to silvicultural treatments. They specifically are used to assess the accuracy of managed stand yield tables used in the forest planning models. The Forest has a number of permanent growth plots, installed over the years. Generally a few are re-measured each year, and in FY2000, six were remeasured.

**Evaluation of Monitoring Results:** Six permanent growth plots were re-measured during FY 00. For sampling accuracy, the plots from several years need to be combined and then compared to the managed stand yield tables. That comparison will be made when there are sufficient numbers of re-measured plots by forest type and productivity class to make statistically valid samples. At this point, for individual stands, growth seems to be near the projected rates.

#### **ITEM 4: ACRES OF HARVESTED LAND RESTOCKED WITHIN 5 YEARS**

**Frequency of Measurement:** Annual for 1-, 3-, and 5-year old regenerated stands (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability That Would Initiate Further Evaluation:** an interdisciplinary team reviews significant deviation from 5-year regeneration period after data.

**Monitoring Results:** This item is monitored using the Regional Reforestation Indices. Data is stored in the Timber Stand Management Record System. For FY 00, 88 percent of stands planted in the past five years are successfully reforesting. Eighty-six percent of stands planned for natural regeneration are successfully reforesting. First year plantation success for FY 00 is at 74 percent. Those not progressing satisfactorily are scheduled for additional treatment to increase stocking to acceptable levels.

**Evaluation of Monitoring Results:** With first year success rates at 93 percent, the lower 5-year average reflects the hot, dry summers with dry conditions extending into fall that occurred recently. Animal damage, primarily pocket gopher damage, also contributes to reduced plantation success.

#### **ITEM 5: SITE-SPECIFIC EXAMINATION TO DETERMINE SUITABILITY OF LAND FOR TIMBER MANAGEMENT**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 10 years (FY 1998)

**Variability That Would Initiate Further Evaluation:** Significant changes in suitable acres.

**Monitoring Results:** The Forest Plan identified suitable lands when it was approved in 1987. As stands are examined, suitability is evaluated and recorded in the timber stand database. No unsuitable lands have become suitable.

**Evaluation of Monitoring Results:** Since the Plan was approved, there have been individual stands that did not meet the suitability requirements set in NFMA. These minor changes in suitability do not warrant a wider review until the Plan is revised.

## **ITEM 6: MAXIMUM SIZE OPENING FOR HARVEST UNITS**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annual

**Variability That Would Initiate Further Evaluation:** Unacceptable results of an interdisciplinary team review.

**Discussion:** Openings, as addressed in the Northern Region Guide, apply to all even-aged silvicultural systems, which include clear-cut, shelter wood seed cuts, and seed tree seed cuts. For timber management purposes, these are openings until they have adequate stocking that averages 2-1/2 feet or more in height. For wildlife and watershed purposes, they are no longer openings when the total woody vegetation (including shrubs) is adequately stocked and at least 15 feet high.

**Monitoring Results:** No units were sold that were over 40 acres.

## **ITEM 11: VALIDATION OF RESOURCE PREDICTION: TIMBER**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** If validation efforts show a need for changes to existing resource predictions.

### **Validation Monitoring:**

The Forest Plan contains estimates of the following four elements for the acres contained in timber sales scheduled to be sold during the first decade. These estimates were used to help derive the Forest's allowable sale quantity (ASQ) ceiling.

- Net volume per acre by silvicultural system
- Total acres by silvicultural system
- Distribution of total acres (%) by Silviculture system
- Total acres by Management Area (MA)

The following four tables display the actual FY 00 data taken from sales sold during this period. Sales contained in the actual FY 00 sold data include all sales of chargeable (ASQ) volume having an appraisal (Forest Supervisor and District Ranger authority sales). Sales offered that did not sell are not included.

**Table 11-a – Sold Net Volume/Acre by Silvicultural System**

Silvicultural System	FY 00 Volume/Acre (MBF)	Weighted Average* FY 00 (MBF)
Clear-cut (Units)	0.0	0.0
SW Prep Cut <sup>1</sup>	0.0	0.0
SW/ST Seed Cut <sup>2</sup>	0.0	0.0
SW/ST Final Cut <sup>3</sup>	0.0	0.0
Sanitation/Salvage	0.0	0.0
Commercial Thin		
Selection Cut <sup>4</sup>		
Totals	0.0	0.0

\*Weighted by acres sold.

**Table 11-b – Distribution of Sold Acres by Silvicultural System**

Silvicultural System	FY 00 Distribution %	Weighted Average FY 00 Distributed %
Clear-cut (Units)	0	0
SW Prep Cut	0	0
SW/ST Seed Cut	0	0
SW/ST Final Cut	0	0
Sanitation/Salvage	0	0
Commercial Thin		
Selection Cut		
Totals	0	0

**Table 11-c – Total Acres Sold by Silvicultural System**

Silvicultural System	FY 00 Acres Sold	Average FY 00 Acres/Year
Clear-cut (Units)	0	0
SW Prep Cut	0	0
SW/ST Seed Cut	0	0
SW/ST Final Cut	0	0
Sanitation/Salvage	0	0
Commercial Thin		
Selection Cut		
Totals	0	0

<sup>1</sup> First entry in a 3 or 4 step shelter wood. The goal is to open up the canopy to improve seed production.

<sup>2</sup> Regeneration cut, where the trees left will provide the seed for the next stand of trees.

<sup>3</sup> Final harvest of a SW/ST...commonly called an "overstory removal". Figures shown in the actual sold volume/acre include both final harvest of "managed stands" and liberation harvest (overstory removal in natural stands).

<sup>4</sup> This refers to an uneven aged management...either group or individual tree selection.

**Table 11-d - Distribution of Sold Acres by Silvicultural System**

MA Code	Management Emphasis	FY 99 Acres Sold	Average Acres/Year
10	Riparian		
12	Timber	0	0
16	Elk/Deer Winter Range		
17	Visual/Scenic		
20	Old Growth		
21	Moose Winter Range		
	Totals	0	0

The following acres and timber volume sold on the Nez Perce NF were within inventoried roadless areas in the second decade.

**Roadless Volume and Acres Sold by Fiscal Year**

Fiscal Year	Roadless Volume Sold (MMBF)	Roadless Cutting Units & Road Right-of-Way Acres
2000	0	0
Total	0	0

**Roadless Acres Sold by Roadless Area**

Number	Name	District	Sold Acres	Percent of Total Roadless Sold Acres
None				

# SOIL AND WATER

## ITEM 1j: SOIL AND WATER REHABILITATION AND IMPROVEMENTS

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** If the Forest did not achieve its assigned target for the fiscal year.

### Implementation Monitoring:

The Forest was assigned, and funded for, a target of 172 acres of soil and water improvements using appropriated funds in FY 2000. The Forest reported 169 acres of accomplishment using NFSI and NFES funds and additional 67 acres using road-related funds, for a total annual accomplishment of 237 acres. The Forest Plan goal is 200 acres per year.

### Summary of Improvements Accomplished in Fiscal Years 1988-2000

Acres Improved	Funding Source →	Soil and Water (NFSI & NFES)	Knutsen-Vandenberg (KV)	Roads	Other Funding	Total
	1988	74	52	113	70	309
1989	131	93	57	147	428	
1990	159	82	76	3	262	
1991	120	85	25	32	262	
1992	214	79	82	12	387	
1993	244	108	90	63	505	
1994	243	79	77	43	442	
1995	314	74	54	5	447	
1996	190	46	2	1	239	
1997	143	4	24	19	190	
1998	85	4	0	0	89	
1999	81	0	60	0	141	
2000	169	7	61	0	237	

The following is a brief summary of 2000 watershed improvement projects by ranger district.

**Salmon River Ranger District:** The District reported 32 acres of accomplishment using NFSI and NFES funds. Major projects were the Deadhorse road-to-trail conversion, located in the Slate Creek watershed and road decommissioning in the Berg Mountain area. One road-decommissioning project utilizing KV funds was also accomplished.

**Clearwater Ranger District:** The District reported 77 acres of accomplishment using NFSI funds. The major project was road decommissioning in the 2021 area of the lower South Fork Clearwater Subbasin. A number of smaller projects, including roadside and stream bank plantings, were also accomplished. Several road decommissioning projects involving timber sale contracts and road funds were also accomplished.

**Red River Ranger District:** The District reported 7 acres of accomplishment using NFSI and NFES funds. Reported projects were erosion control plantings on the Emerald and Santiam placer mines, located in the upper South Fork Clearwater Subbasin.

**Moose Creek Ranger District:** The District reported 53 acres of accomplishment using NFSI and NFES funds. The major project was road decommissioning in the O'Hara Creek watershed. A number of smaller projects, including roadside plantings and abandoned trail restoration were also accomplished. One road-decommissioning project utilizing a timber sale contract was also accomplished.

**Red River Wildlife Management Area:** The Forest participated in this stream and riparian improvement project, located on land managed by the Idaho Department of Fish and Game in the Red River watershed. The project is a multi-agency partnership, with primary funding through the Bonneville Power Administration.

#### **Effectiveness Monitoring:**

**Evaluation of Monitoring Results:** From 1988 through 1996, the Forest exceeded its Forest Plan watershed improvement goal of 200 acres per year. This goal was not achieved for the past 1997 through 1999, but was again exceeded in 2000. An overall evaluation of the watershed improvement program has not been conducted. In recent years, the nature of improvement projects have changed, with larger projects being developed to decommission unneeded roads. This has resulted in relatively high unit cost projects and lower total acres accomplished. However, per unit area treated, the on-the-ground effects of such projects are probably more significant and long lasting than many earlier approaches.

## **ITEM 2g: IMPACTS OF MANAGEMENT ACTIVITIES ON SOILS**

**Frequency of Measurement:** October 1, 1999 through September 30, 2000

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** If more than 20 percent of an activity area has sustained significant or permanent impairment of the productivity of the land.

### **2000 Soil Monitoring:**

Soil monitoring is conducted during project planning, implementation, and following completion of management activities to determine how closely Forest Plan management standards are being followed.

**Implementation Monitoring** determines if the potential for soil damage was evaluated during project development and if designated best management practices (BMPs) were applied.

**Effectiveness Monitoring** determines if the implemented practices were adequate to:

- 1) Maintain 80 percent of an activity area in a productive condition, without detrimental compaction, displacement of surface soil, or puddling (loss of soil structure), and
- 2) Minimize erosion and sloughing on road cuts and erosion on other activity areas.

**Validation Monitoring** determines whether the data, assumptions, and coefficients used in soil and vegetation response models are correct.

### **Results:**

#### **Implementation Monitoring:**

Most environmental analyses and watershed assessments completed in 2000 used soil information to describe soil limitations and opportunities within assessment area, evaluate impacts of past management, and develop recommendations for avoidance, restoration or mitigation.

Soil information was consistently used to predict sediment production. Predicted sediment was used to help select number, location, and scheduling of activity areas.

Landform, stream, slope, and soil information was used with watershed historic files and photos to delineate landslide prone terrain for watershed assessments and most timber sale analyses. Field reviews were used to refine those delineations, avoid areas of risk, or adjust project designs to minimize risk. Watershed staff, sale layout foresters, marking crews, and sale administrators have become increasingly skilled at hazard identification and marking or harvest unit adjustment to minimize tasks.



## **Blanco Soil Quality Effectiveness Monitoring for spring and fall of 2000:**

Ten monitoring plots were also established on the Blanco prescribed burn in 1999 to evaluate watershed response. About 97 percent of the area burned at low intensity. Bar soil averaged less than 5 to 10 percent. No rill or gully development was observed. Draws did not show evidence of increased erosion.

Further, more detailed monitoring of the Blanco prescribed burn was accomplished in the spring and all of 2000.

Units 1 (160 acres) and 5 (150 acres) of the Blank Prescribed Burn area, located within the Lower Red River Watershed (17060305-04-02), were monitored in the spring and fall of 2000 in an attempt to further quantify the effects of spring burning on aquatic resources through sediment production. Ground cover was measured at 10 sites in each unit before and after burning. Unit 1, burned in May 1999, had an overall decrease in bare soil of approximately 5 percent, while duff layer depth increased 1-2 cm. Overall. Unit 5, burned May 2000 and September 2000, resulted in 5-15 percent total area of bare soil, mostly around stump holes, with an over 1-2 cm. Duff layer depth, due to a light surface fire.

Unit 1 has been revisited semi-annually, since the burn occurred in May 1999. In general, based on a review of the monitoring plots and a walk-through of the burn area, no concerns have been raised from a watershed standpoint. None of the plots or anywhere in the burn did we observe rilling or off-site erosion of sediments. Burn patterns were sporadic, depending on fuel accumulations were greatest, there was not a complete combustion of the duff layer, and no off-site erosion has been observed.

In one area the fire backed down into the riparian zone of Cartwright Creek. Cartwright Creek is somewhat entrenched, but floodplain slopes are estimated to be less than 5 percent at this location. Though an area of high fuel concentrations burned close to the creek, the duff remained intact and sediments are not being delivered to the stream.

Unit 5 was divided into two burn areas, one was burned in the spring of 2000 and the other burned in the fall of 2000. Most of the area in both burns only sustained a low intensity, cool burn with 1-2 cm. of the duff layer remaining. The forbs throughout the area we visited remained while partial consumption of the grasses occurred. The areas of moderate burn intensities were restricted to areas around stumps where the pitchy roots were consumed leaving small holes with exposed soil.

Plots 6-9, burned in September 2000, were set up after the burn. The day the plots were established, it had snowed 2-3 inches and the exposed soil and erosion could not be measured.

### **Road Cut and Fill Monitoring:**

Continued informal monitoring of road cut and fill revegetation has reaffirmed the need to develop sources of native, site-adapted seed or planting stock for this and other revegetation work.

### **Mackey Day Soil Quality Effectiveness Monitoring:**

Several units were designated as harvester/forwarded units on the Mackey-Day Timber Sale. Direction came from the Regional Office in Missoula that forwarders should be considered and used where possible. A forwarder operation is optimized (i.e. compaction reduced, erosion prevented, and soil processes maintained) when the surface soil, including organics, are not disturbed. Slash mats are typically laid over existing vegetation on forwarder trails to protect existing vegetation and soil resources—primarily to minimize soil compaction. If a main forwarder trail (lacking existing vegetation) is covered by a slash mat that's left in place during high precipitation events the first year after use, erosion potential can be greatly reduced. Needles, twigs, and branches present on the slash mat can greatly reduce raindrop impact when the trail is most vulnerable. Therefore, the benefit of a forwarder operating on a slash mat can be both immediate (during logging operations) and long-term, because of the reduced likelihood of erosion.

Monitoring was conducted in the field using ocular methods and walk-throughs with the Forest Interdisciplinary Team. It was observed that in places where forwarder operations occurred over existing vegetation on gentle topography over a slash mat, the "footprint" is minimal. Soil structure and processes are expected to largely remain intact. When existing vegetation is not maintained and a slash mat is in place, soil disturbance is likely greater, but if the organic layer is maintained and the risk of erosion is minimized after use, soil processes would be expected to recover relatively quickly. Though surface soils may not be greatly disturbed, compaction is likely present below the surface on main haul trails. The steep main trail we observed differed in its use and the resulting footprint. Adverse hauls, especially on steeper ground, resulted in considerable soil disturbance, displacing the organic layer and exposing mineral soil. The combination of steep slopes and the two lanes (with an undisturbed berm in between) created by the forwarder results in trails that require erosion control work, and that are difficult to drain.

The group felt the last-minute direction to utilize forwarders on this sale, may have, in part, been responsible for what we saw. The group also discussed how the main trails would have looked had they been cat-logged, which was pretty normal operating procedure when the sale was being marked in the early 1990s. It was felt that despite the appearance of the existing trails, the resulting soil damage, was probably considerably less than would have resulted from cat operations. The Timber Sale Administrator (TSA) recognized that the steep, bare forwarder trail would need some drainage work and was going to try to schedule it for later in the week.

Ground-based logging is going to result in some detrimental soil impacts. As described above, main haul trails differed considerably from collector trails: effects to soils likely differ accordingly. Because of the trail spacing, and the way the trails were used, some of the forwarder units in the Mackey-Day timber sale may not currently meet the FSM Soil Quality standards (soil disturbance limited to 15 percent or less of an activity area). This situation will have to be further assessed to determine the extent of the soil impacts, and work remaining to bring us into compliance.

Participants on this field review discussed the conflicts that can arise between administrative pressure, silvicultural objectives, logging systems, and soil and water objectives. In general, soil and water concerns have been well addressed by the TSA. The terrain on some of the forwarder units is at odds with FSM "guidelines" to limit trail spacing to 75-100 feet apart. This is in part the result of mandating that this logging system be used without regard for the specific terrain of the sale. Main trails on "steep" slopes where soil is disturbed should be left in a condition to minimize detrimental soil and water impacts. Location, level and kind of use, and moisture content of forwarder trails greatly influences the extent of detrimental soil impacts. Watershed personnel should provide better support to the TSA during location, use, and "closeout" of these features so that soil and water concerns are addressed. In addition, watershed personnel should evaluate these trails after closeout treatments are completed to document effectiveness of those treatments.

During the spring of 2001, if resources allow, compaction and displacement will also be compared among and between logging systems to document differences between logging systems (although these differences have been documented in the literature). Forwarder trails will be thoroughly assessed in the spring of 2001; if rehabilitation work is needed to bring the sale into compliance with FSM standards, it will be done under favorable conditions in 2001. Untreated areas between unit boundaries and streams in the sale area will be evaluated for sediment movement and delivery in 2001.

### **Pinchot Fire Soil Erosion and Knapweed Monitoring**

The Pinchot fire was detected July 9, 1999, and eventually burned about 374 acres under a confine/monitor strategy. Natural fire effects and recovery processes are objectives for the area under the Selway-Bitterroot management plan. The area is very susceptible to mass failure in channels and on steep slopes after soil disturbance. Spotted knapweed invades any disturbed area in the breaklands, and supplants native bunchgrasses. Knapweed is thought to increase the chance of erosion on the breaklands, because of the abundant bare soil between plants, and reduced root biomass and ground cover. Line transects were set up to monitor increase in soil erosion and knapweed spread. Results from 1999 were reported in the 1999 monitoring report.

The objectives of monitoring are to:

- 1) Determine if knapweed expands in burned areas beyond its rate of expansion in unburned areas.

- 2) Determine if erosion in burned areas where knapweed becomes established exceeds erosion in areas where native plant species recover after fire, given equal burn severity and site factors.

#### June 2000 Data Summary:

No evidence of accelerated erosion in knapweed plots compared to other plots. Evident sheet erosion in transect 3 due to very steep slopes, bare soil and grussic material, likely chronic whether burned or not. Old gully in transect 2 appears to be better vegetated and stabilizing than in 1999.

Bare soil in 1999 was correlated with bare soil in 2000 ( $p = .000$ ). This means bare areas stayed bare.

Knapweed density was not correlated with burn severity ( $p = .984$  in 1999 and  $p = .432$  in 2000). Knapweed density was not correlated with bare soil in 1999 ( $p = .360$ ) or in 2000 ( $p = .684$ ). This suggests that, so far, burned areas have not been more heavily colonized by knapweed than unburned areas.

The increase in knapweed from 1999 to 2000 was not different ( $p = .852$ ) between burned and unburned. Some of the measured difference between 1999 and 2000 could be accounted for by small discrepancies in transect layout, but in any case, there did not appear to be actual differences.

Accelerated erosion did not appear to be related to knapweed, but to slope, soil and burn severity.

#### **Validation Monitoring:**

Data from the 1997 landslide inventory has not been compiled and analyzed, because of other forest priorities. (It has since been compiled in FY 2000 with the help of a high school volunteer.)

#### **Monitoring Evaluation:**

Use of soil information in risk assessment, project analysis and design, and better understanding and mitigation of soil impacts associated with road construction, logging, and site preparation is improving.

Effectiveness monitoring has not been done at a level to validate compliance with Forest Plan soil standards, because of funding limitations and other priorities. The soil moisture study demonstrates the need to reduce impacts from machinery operation, including effects of mixing the volcanic ash cap with subsoil.

Completion of the landslide inventory project needs continued emphasis. A consistent protocol for delineation of landslide prone terrain, with use of site specific information and application of expertise proportional to risk has been developed and

is being implemented to ensure that slope stability hazards are identified and addressed as part of project design.

The development of native, site-adapted seed supplies and planting stock is increasing in importance with the increased emphasis on restoration. Fire, weed and non-native annual plant invasions, and mechanical or natural storm or flood disturbance in grasslands, forested lands, non-forest riparian areas result in this need.

## **ITEM 2h: IMPACTS OF MANAGEMENT ACTIVITIES ON SOILS**

**Frequency of Measurement: Annually**

**Reporting Period:** October 1, 1999 through September 30, 2000

**Variability That Would Initiate Further Evaluation:** If violations of Idaho State Water quality Standards were detected or if Forest Plan fish/water quality objectives were not met within acceptable time frames.

### **Effectiveness and Validation Monitoring:**

As in previous years, the Forest collected stream flow and water quality data at eight gauging stations (Rapid River, Little Slate Creek, Johns Creek, Upper Red River, South Fork Red River, Trapper Creek, Main Horse Creek, and East Fork Horse Creek). Variables sampled included stream discharge, suspended sediment, bedload sediment, water temperature, and conductivity.

Watershed personnel also maintained seven storage precipitation gauges, five recording precipitation gauges, five hydrothermographs, and two snow courses. Fire personnel conducted additional weather monitoring.

Water temperature data are collected at about 50 sites across the Forest, using electronic recording thermographs. Data collection under this program began about 1990 and has continued each year since then. The period of record varies by station.

Physical stream channel morphology measurements are taken at about 20 permanent stations across the Forest. Each of these was initially measured during the period of 1988-1990. About half of the stations have been remeasured, with the remainder planned for remeasurement.

The Northern Region continued evaluation of high mountain lakes for sensitivity to long-term deposition of atmospheric sulfate, nitrate, and ammonium. On the Nez Perce National Forest, Shasta Lake, located in the Selway Bitterroot Wilderness, was selected as a long-term study site. Field data were collected at Shasta Lake in 1996, 1998, 1999, and 2000.

## **Evaluation of Monitoring Results:**

Analysis of stream flow and sediment yield data from the gauged water quality monitoring stations is ongoing. From 1995 through 2000, particular emphasis was given to data analysis pertaining to instream water rights claims filed under the Snake River Basin Adjudication.

In 1998, a computer database named Aquatemp was set up for storage and retrieval of the Forest's water temperature data. In 2000, analysis of water temperature data for the Selway River sub-basin and the Slate Creek watershed were completed.

Until FY 91, the Forest issued an annual technical report entitled "Hydrologic Data Summary and Monitoring Analysis." This report summarized stream flow and climatic data collected on the Forest during the previous water year. It also provided more detailed analysis of water quality and related monitoring results than the annual Forest Plan monitoring report. There is no plan to resurrect the annual report format, but the data are available upon request, both in paper copy and electronic format.

### **ITEM 2i: WATER QUALITY – PROJECT LEVEL ADMINISTRATION REVIEWS AND FIELD STUDIES**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** If the reviews or studies discover violations of Forest Plan standards or Idaho Water Quality Standards.

#### **Monitoring Results:**

Implementation and effectiveness monitoring was accomplished on several types of activities in 2000. The monitoring was conducted primarily by interdisciplinary teams of Nez Perce National Forest personnel, with assistance from other entities. The following activities were reviewed with respect to their effects on water quality:

- Swiftwater Timber Sale;
- Mackey-Day Timber Sale;
- Blanco Prescribed Burn; and
- Burnt Flats Fire.

In addition to monitoring Forest Plan implementation, these field reviews also meet the Forest's obligation under a Memorandum of Understanding with the State of

Idaho to monitor a target of ten percent of activities that fall under the Idaho Forest Practices Act Rules.

### **Swiftwater Timber Sale**

An interdisciplinary team reviewed the Swiftwater Timber sale on October 3, 2000. It is located in the Swiftwater Creek watershed, which is a tributary to the lower Selway River. The Swiftwater EIS was issued in 1996 and the timber sale was awarded in March 1997. Numerous changes to riparian buffer strips were made during the course of the sale. These were due to requirements under the endangered species Act and also from problems with the original sale layout relative to PACFISH requirements. Non-riparian replacement timber volume was provided. Once all the adjustments were made, the sale consisted of 5.9 million board feet of timber harvest on 179 acres and a combined 1.6 miles of temporary road construction and road reconstruction.

Harvest units 12, 1a, and 1b were reviewed in the field. The harvest units were deemed to meet Idaho Forest Practices Act (FPA) requirements. A minor problem of inadequate water bar spacing was noted on a hand-constructed fire line on one unit. In another unit, about one acre of landslide-prone terrain was not buffered. Though this is not an FPA requirement, it was one of the mitigation measures associated with the sale. The site should be monitored for future mass movement.

The interdisciplinary team also reviewed the reconstruction on Road #470E, as well as temporary road construction associated with unit 1a. These roads were deemed to meet FPA requirements. A minor deviation occurred at a 24-inch culvert, which was not properly aligned. It also resulted in a head-cut in a small perennial stream. Associated with this crossing is an over-steepened cutslope. This overall site should be stabilized.

### **Burnt Flats Fire**

The objectives of this monitoring were to review the history of the fire, suppression activities, burned area emergency assessment and treatments, and suppression rehabilitation. Desired outcomes are to develop recommendations for improvements in these activities to better sustain or restore ecological process while protecting communities and investments.

Normal precipitation early in 2000 was followed by drought from the second week of June. By the third week in July the Energy Release Component index for this area had exceeded the 97<sup>th</sup> percentile, and by August 10, had hit a historical high. The White Bird watershed has no record of fire since the 1870s when record keeping began. Fire scars around Fish Creek indicate a fire occurred about 1854, so fuels had accumulated in some areas well above natural levels.

The fire started the evening of August 10, on state lands. Idaho Department of Lands staff fought the fire for two days until the fire was turned over to an incident management team on August 13. Suppression objectives were to keep the fire out of

Whitebird, Grangeville, and the private lands south of the Free Use Road, and to protect established plantations on National Forest lands. Direct tactics were used when feasible, but generally indirect attack was used, burning out from existing roads and constructed dozer lines. A second management team took over the fire on August 26, and continued implementing the plan as established.

Fire behavior was most intense during the first week of the fire, with rapid surface spread, torching and short range spotting with some short crown fire runs with long range spotting. Most of the fire was terrain and fuel driving. Approximately two thirds of the area burned, and virtually all of the severe fire occurred, during the first 7 days.

By August 26, the weather began to moderate and all control lines were established by August 31. One inch of rain fell in September 1 and the fire was contained on September 4. Fire management was returned to the Forest and the Idaho Department of Lands on September 6. It was declared controlled on September 9.

The total area within the fire perimeter was about 22,500 acres, including all land ownerships. About 15,691 acres (70 percent) was National Forest lands; 4,017 acres (18 percent) state; and 2,792 (12 percent) private (as of September 1, 2000). Eight percent of the total area burned area severely, generally on steep headwalls on north aspects, during the first few days of the fire. Seventeen percent burned with moderate severity, and 75 percent was low severity or unburned.

Most of the burned area is in soils developed from basalt, with relatively low erosion hazard compared to granitics. Very little detectable increase in water repellency was noted in areas of severe or moderate burn.

On October 20, 2000, an interdisciplinary team reviewed the Burnt Flats Fire. The review encompassed a wide spectrum of issues related to the fire suppression. Only those findings pertaining to watershed and aquatic resources are reported here.

**Role of Resource Advisors:** This is a key position reporting to the Incident Management Team. Its primary objective is to help integrate local resource concerns into suppression planning and implementation. On Burnt Flats, it was found that the size and complexity of the fire required more than one resource advisor. It was also found that key resource information was not always available when needed. It is recommended that types and locations of sensitive resources need to be better identified and communicated.

**Dozer Lines and Safety Zones:** About 54 miles of fire line were constructed, most of which was dozer line. In addition, about 15 miles of local roads were bladed for use as fire lines and 15 miles of collector roads were also used. There were about 15 stream channels and one heritage site impacted by the fire lines. Dozer lines or safety zones impacted several sites supporting sensitive plants. There was considerable discussion as to the necessity of certain dozer lines, particularly where they paralleled roads on ridges. It was also noted that the incident team, which slowed the suppression rehabilitation effort, did not consistently map the dozer lines. It was



recommended that better coordination during suppression activities was needed to identify sensitive sites and select matching suppression tactics. It was also recommended that standards be developed for mapping and documenting suppression features in order to facilitate rehabilitation.

**Implementation of Suppression Rehabilitation:** By October, suppression rehabilitation had been virtually completed. The dozer lines and hand line had been obliterated. Safety zones had been obliterated as feasible, with seeding, mulching, and fencing as needed. Forty tons of straw were applied for moisture retention or erosion control. Twelve hundred pounds of seed were applied, a dry site Canby bluegrass/blue bunch wheat grass mix, Idaho fescue on dry sites with deeper soils, and a forest site mix of annual rye and blue wild rye. Eighteen hundred feet of orange mesh fencing was installed to keep traffic off of recovering sites. It was concluded that the suppression rehabilitation efforts were a commendable effort, given the timing, scale, and complexity of the situation. Recommendations included mobilizing the suppression rehabilitation effort earlier in the process, mobilizing enough personnel to effectively cover both the suppression and burned area emergency rehab (BAER), and ensuring good communication between the planning and implementation of the rehabilitation efforts.

**Burned Area Emergency Rehabilitation (BAER):** The recommendation of the BAER team to not extensively treat slopes or channels was discussed. The line officers felt comfortable with this decision, but reiterated the need to complete the hydrologic assessment to provide rationale, or suggest a need for change. This decision was based on the resources at risk: there are no roads, bridges, or other private developments for several miles downstream of the highest risk areas. The headwater treatments to stabilize source areas for debris torrents would mostly be on private lands, which would be difficult to fund, because Idaho County was not declared an emergency under the Emergency Watershed Protection Act. Due in part to other fires in the Northern Region, the burned area assessment was constrained by lack of aquatic technical support. It was recommended that a more robust hydrologic analysis be completed later. Also, in the future the Forest should request additional expertise when needed for BAER assessments.

**Long Term Watershed Restoration:** The review team visited on partially rehabilitated road that was used in the fire suppression efforts. It was agreed that this road should be evaluated as part of a comprehensive analysis of access and restoration needs in the White Bird watershed. Stream and road surveys are funded in FY 2001 to gather information for a watershed analysis and subsequent decision document. This effort will consist of a watershed-wide assessment of current conditions, followed by recommendations. A concurrent effort is underway to evaluate timber salvage options.

## **ITEM 2j: IMPACTS OF MANAGEMENT ACTIVITIES ON RIPARIAN AREAS**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** If the reviews or studies discover violations of Forest Plan standards.

### **2000 Riparian Monitoring Report:**

Riparian area monitoring is conducted during project planning, implementation, and following completion of management activities to determine how closely Forest Plan management standards are being followed.

**Implementation Monitoring** determines

- If riparian areas are delineated and evaluated during project design;
- If preferential consideration is given to riparian-area-dependent resources in cases of irresolvable conflict;
- If appropriate provisions of the Idaho Forest Practices Act (BMPs) are applied, or a variance sought; and
- If effects on wetlands and floodplains are considered in project development.

In addition, monitoring determines if PACFISH standards that constitute Forest Plan amendments, or additional guidance from the regional aquatic conservation strategy are being followed.

National wetland inventory maps are consistently used for initial wetland delineation and riparian area, but site-specific projects usually result in identification of numerous additional wetlands and small streams. Preferential consideration of wetland resources now occurs very consistently, due to PACFISH standards, and consultation requirements under the Endangered Species Act.

Monitoring of road obliteration projects during contract inspection maintains quality of stream alignment and gradient, and soil stabilization at the crossing sites.

**Effectiveness Monitoring** determines

- If management practices have caused detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment that seriously and adversely affect water conditions and fish habitat; and

- If cover and security for riparian-dependent species have been maintained.

Headwaters stream surveys were used above and below road crossings in O'Hara, Hamby, and Goddard Creeks in 1999 and 2000 to detect road effects on channels and riparian conditions. These surveys were done as part of the O'Hara/Goddard EAWs inventory.

Monitoring of one prescribed burn on Meadow Creek showed no detrimental fire effects in riparian areas. Fires were not ignited in the riparian zone, and little fire backed into the streamside areas.

Monitoring on the Blanco fire showed that there was no detrimental effect on the riparian areas.

Validation Monitoring was used to describe riparian dependent resources, their values, and predict effects of management (Forest Plan II-12). No validation monitoring occurred.

### **Monitoring Results:**

#### **Implementation Monitoring:**

Riparian areas are consistently delineated during integrated resource analysis using National Wetland Inventory maps and field observation. This delineation is based on identification of perennial and intermittent streams and areas of soils with high water tables and water loving vegetation. Estimated acres of riparian areas and wetlands are calculated from these delineations during the management area validation process.

Good design and administration of road obliteration projects is critical to restoration of riparian characteristics. A long-term administrative study to evaluate stream and watershed response to road obliteration was initiated in FY 2000 on the Horse Creek Administrative Study site and will continue through FY 2005.

Inventory to assess riparian condition in headwater streams now has a standard protocol, but no standard data storage or synthesis capability.

#### **Effectiveness Monitoring:**

No effects from prescribed burning were detected in monitoring.

#### **Validation Monitoring:**

Valley gradient/stream order information was used with landforms to predict probability of certain aquatic habitat elements, with good results. Reaches derived from this information will be used to assess historic fire effects in riparian areas stratified by reach, landform setting, and potential vegetation.

### **Monitoring Evaluation:**

A data structure and synthesis capability for headwater stream surveys and riparian condition surveys are needed.

Field reviews and monitoring will continue to be needed to ensure that an accelerated prescribed fire program results in predicted and acceptable effects to riparian areas.

### **ITEM 11: VALIDATION OF RESOURCE PREDICTION MODELS - WATER QUALITY AND FISH**

**Frequency of Measurement:** Annually (October 1, 1999 - September 30, 2000)

**Reporting Period:** 2-5 years

**Variability That Would Initiate Further Evaluation:** If validation efforts show a need for changes to existing predictive models.

The Forest uses NEZSED, an adaptation of the R1/R4 Sediment Yield Guidelines (USDA Forest Service, 1981), to estimate average annual sediment yields. NEZSED model tests were done on natural sediment yield for several first and second order streams in 1987. In 1994, an evaluation of NEZSED on eight 3<sup>rd</sup> to 5<sup>th</sup> order streams was completed through a master's thesis. In 1995, NEZSED was tested against sampled data from two larger sub-basins. An effort to summarize and compare results from the model tests on three scales of watersheds was initiated in 1999. No further validation was done in 2000.

# RANGE

## ITEM 1g: ANIMAL UNIT MONTHS GRAZING PERMITS

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** +/- 10 percent of Forest Plan Estimate.

**Monitoring Results:** The Forest permitted approximately 33,500 animal unit months (AUMs) during the FY2000 grazing season. The Forest authorized through the yearly billing process approximately 25,575 animal unit months. Actual use information indicated that permittees in general placed less than the authorized level of livestock on the allotments. Forest-level actual stocking on the allotments was approximately 25 percent less than the current permitted levels.

## ITEM 11: RANGE ANALYSIS AND ALLOTMENT MANAGEMENT PLAN UPDATES

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** +/- 10 percent of Forest Plan Estimate.

### Discussion:

On July 27, 1995, President Clinton signed into law the 1995 Rescission Bill (PL 104-19). A portion of the Bill, Section 504, pertained to grazing on National Forest Lands, specifically allotment NEPA analysis, and grazing permit issuance. Under the Rescission Bill, the Forest is directed to issue new term grazing permits as they expire even if the required NEPA analysis has not been completed. The Forest is to schedule the needed and required analysis. All allotments without current or needed analysis must be scheduled within the next fifteen years.

The information contained in the schedule reflects the best information available at this time and is based on current and expected funding levels. The schedule may be updated to reflect changes in resource information, Forest management priorities as a result of Forest Plan Revision and funding. At current funding level and Forest priority, all allotments that need revising will be updated by the year 2015. Due to the work necessary to complete consultation under the Endangered Species Act (ESA) and the necessary administration, the planning effort for allotment revision has been postponed to future years. Once consultation is completed, administration and

monitoring is funded for all active allotments, the Forest will review the update schedule and make necessary adjustments based on ESA requirements, monitoring requirements, and current budgets.

### **Grazing Allotment Analysis Update Schedule**

<b>Allotment Name 1</b>	<b>Analysis Status</b>	<b>Time Period</b>	<b>Key Resource Values</b>
Race Creek	Revision Complete	1992	Riparian
Blacktail	Revision Complete	1992	Big Game
Allison Berg	Revision Complete	1996	Riparian
Hungry Ridge	Revision Complete	1996	Riparian/Wildlife
Meadow/Lightning Creek	Revision Complete	1996	Riparian/Big Game
Papoose	Postponed	1998	Riparian
American River	Postponed	1998	Riparian
Elk Creek/Lick Creek	Postponed	1998	Riparian
Cannonball	Postponed	99-01	Wilderness/Recreation
Peter Ready	Postponed	99-01	Riparian
Butte Gospel	Postponed	99-01	Riparian
Hanover	Postponed	99-01	Wilderness/Riparian
Florence	Postponed	99-01	Riparian
Whitebird/Cove	Postponed	99-01	Riparian
Christie Creek	Needs Revision	02-04	Riparian
River View	Needs Revision	02-04	Timber Management
Newsome Creek	Needs Revision	02-04	Timber Management
Elk Summit	Needs Revision	02-04	Timber Management
Hamby	Needs Revision	02-04	Timber Management
Corral Hill	Needs Revision	02-04	Big Game
Fiddle Creek	Needs Revision	05-07	Timber Management
Tahoe-Clear Creek	Needs Revision	05-07	Riparian/Timber Management
Mallard Creek	Needs Revision	05-07	Riparian
Earthquake	Needs Revision	08-10	Big Game/ Reforestation
Kirks Fork	Needs Revision	08-10	Riparian

### **Implementation Monitoring**

The following grazing guidelines have been incorporated into the Annual Operating Instructions for grazing allotments. The grazing guidelines are used to manage livestock and to estimate the time when animals need to be rotated away from sensitive stream reaches. The goal of grazing management is to maintain desirable riparian conditions and achieve recovery of streams not in satisfactory condition.

1. Forage Utilization: 40 percent or less of the current growth by weight, measured during the grazing period.
2. Shrub Utilization: 40 percent or less of the available current year's growth, measured as a percent of the leader length browsed.
3. Bank Disturbance: 10 percent of the bank distance.

Forest personnel monitored along stream reaches that were accessible to livestock. Forage utilization, shrub browsing and bank disturbance were estimated as the inspector walked along the designated stream reaches. The percentages represent the average levels found along the stream reaches where monitoring took place.

The table below summarizes the implementation monitoring conducted along key riparian areas during the 2000 field season.

<b>Allotment Name • Riparian Area</b>	<b>Forage Utilization</b>	<b>Stream Bank Disturbance</b>
Allison-Berg Allotment • Allison Creek	30%	1%
Butte-Gospel/Hanover • Wind River Meadows	35%	NA
Cannonball • Rapid River • West Fork Rapid River • Bridge Creek	0% 5% 5%	1% 1% NA
Christie Allotment • Rhett Creek • Christie Creek • Johnson Creek • Deer Creek	30% 55% NM 15%	1% 1% 1% NM
Cow Creek Allotment • Cow Creek	20%	2%
Papoose Creek Allotment • Shingle Creek • Papoose Creek • Squaw Creek	NM 15% NM%	1% 1% 1%
Peter Ready Allotment • North Fork Slate Creek	35%	8%
Race Creek Allotment • West Fork Race Creek • Bean Creek	35% 30%	4% 3%
Sherwin Creek Allotment • Sherwin Creek	40%	1%
American River Allotment • American River (Upper) • American River (Lower)	12% 9%	3% 1%

<b>Allotment Name • Riparian Area</b>	<b>Forage Utilization</b>	<b>Stream Bank Disturbance</b>
Corral Hill Allotment • Kay Creek • Hondoo Creek • Lost Mule Creek • West Fork Clear Creek	10% 8% 17% 21%	1% 2% 2% 1%
Elk Summit Allotment • Viceroy Creek • Allison Creek • Moose Creek • Whiskey Gulch	5% 5% 4% 5%	2% 1% 1% 3%
Hamby Allotment • Hamby Creek	0%	0%
Hungry Ridge Allotment • Merton Creek • Deer Creek • Big Canyon • Dry Gulch • Grouse Creek • Buck Meadow • American Meadow	10% 6% 28% 5% 12% 10% 15%	3% 6% 5% 5% 5% 3% 5%
Meadow/Lightning Allotment • Lightning Creek • Alder Creek • Orchard Creek • Swede Creek • Peasley Creek • Ferris Creek • Whitman Creek	17% 5% 5% 15% 16% 24% 15%	1% 10% 1% 7% 4% 7% 4%
Tahoe/Clear Creek Allotment • Lodge Creek	0%	0%
Whitebird Creek Allotment • Cold Spring Creek • Corduroy Creek • Fish Creek • Dump Creek • Camp Creek	5% 10% 30% 25% 10%	1% 1% 1% 7% 3%

### **Evaluation of Monitoring Results**

Monitoring suggests that, in general, permittees were successful in meeting the grazing standards stated in the annual operating instructions. Forty-eight riparian areas were monitored for forage utilization and stream bank disturbance. Monitoring by Forest personnel found that all but one of the riparian areas inspected were within the forage utilization and stream bank disturbance standard. At the few locations where use/disturbance met allowable standards, the permittee herded animals to less



sensitive areas. Each time this occurred the permittees were notified and the livestock were promptly removed from the problem area. Grazing along many streams was far below the allowable levels prescribed in the annual operating instructions for 2000. Monitoring results and grazing management were reviewed and discussed with the Fish and Wildlife Service and National Marine Fisheries Service to ensure that allotment management was in compliance with the biological assessments.

# RECREATION

## ITEM 1a: RECREATION VISITOR DAYS

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000).

**Reporting Period:** 5 years

**Variability That Would Initiate Further Evaluation:** If the Forest did not achieve its assigned target for the fiscal year.

### **Discussion:**

The Forest Service is in the process of replacing the old Recreation Information management (RIM) system with a new data base system known as infrastructure or INFRA for short. Meaningful Measures (a sub-database of INFRA) was implemented in the fall of 1999. A Recreation Use Survey was conducted during 2000.

### **Monitoring Results:**

Baseline recreation use on the Forest was established through the use of traffic counters, fee campground user information, river permits, trail head cards, and observation by field personnel. Since then annual updates have been primarily accomplished through observations and comparison by field personnel. Through the use of field observation we are able to identify recreational trends, however, we cannot generate statistically accurate recreation use numbers from this technique. The statistical results of the 2000 Recreation Use Survey should be available in mid-2001.

Observations in 2000 showed lower recreation visitor use than previous years due to low snow pack, fire activity, restrictions due to fire danger and excessive smoke.

Campground parking areas: The size of vehicles and towing units have increased, exceeding designed spur lengths for recreational vehicles. If these increases continue, sites will need to be modified to provide for the use.

Traffic surveillance was reactivated along the roaded recreation corridors of the Selway and Salmon Rivers, as well as the Grangeville-Salmon Road. These checks were activated to record and document use, in addition to increasing accuracy in visitor numbers used in recreation planning and budget calculations.

### **Evaluation of Monitoring Results:**

Currently, Forest recreation use numbers are updated annually based on observations, comparisons or estimates by field personnel. The 2000 Recreation Use Survey was a statistically based survey and should be available in mid-2001.

## ITEM 1b: ACRES OF RECREATION OPPORTUNITY SPECTRUM (ROS) CATEGORY

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability Which Would Initiate Further Evaluation:** following a 5-year period, variation which would indicate that Forest Plan direction requiring a full range of recreation opportunities is not being met, or if the semi-primitive classes are being lost more quickly than specified in the Plan.

### **Discussion:**

The Recreation Opportunity Spectrum (ROS) is used to evaluate the recreation potential of the Forest. This spectrum defines six classes of recreation opportunities on a continuum ranging from primitive (where human disturbance is minimal) to urban (where sights and sounds of people are predominant). These classes are defined in relation to physical settings, recreational activities, and experiences. The Forest has been inventoried, mapped, and divided into four Recreation Opportunity Spectrum (ROS) classes. Currently, the Forest has no rural or urban class settings.

### **Monitoring Results:**

ROS mapping for the existing situation was completed in 1979. No subsequent mapping has since been done on a Forest-wide basis. Such an effort would be necessary to update ROS categories or to determine changes in ROS classifications due to the implementation of management activities such as timber harvest. A comprehensive review of ROS changes would also be needed prior to completing the Forest Plan Revision and Plan Area analysis, and to determine if Forest Plan direction is being met.

### **Evaluation of Monitoring Results**

Upon review of what has been completed using ROS, it is evident that another category, **roaded modified**, needs to be formally adopted. **Roaded modified**, used throughout the Pacific Northwest Region of the Forest Service, has been used in some Nez Perce National Forest analyses. It best describes the recreation spectrum characterized by timber harvest units and road systems, but little in the way of recreation oriented developments. It falls between the **semi-primitive roaded** and **roaded natural** categories.

There is a need to review and update Forest ROS maps; along with modifying our existing database to track ROS acreage changes.

## **ITEM 2a: OFF-ROAD VEHICLE IMPACTS**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability That Would Initiate Further Evaluation:** Unacceptable impacts caused by off-road vehicle use.

### **Monitoring Results:**

The development of a systematic method to monitor Off-Road Vehicle (ORV) use and impacts has not been a high priority for the Forest. It is generally felt that such use (particularly that of four-wheelers and snowmobiles) is increasing in several areas.

An opportunity to evaluate off-road impacts exists as part of watershed analysis. It is

### **Evaluation of Monitoring Results**

A study of ORV impacts has not been completed and the need for understanding is increasing. Inventory of uses and impacts should be addressed as part of a comprehensive ORV monitoring plan. It is recommended that evaluation of ORV impacts be included as part of any watershed analysis.

## **ITEM 2b: ADEQUACY OF CULTURAL RESOURCE PROTECTION, IMPACTS ON CULTURAL RESOURCES**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability Which Would Initiate Further Evaluation:** A change in Section 106 of the National Historic Preservation Act of 1966 or other pertinent cultural resource laws and regulations could necessitate altering the cultural resource monitoring procedure to comply with the changes.

### **Monitoring Results:**

During FY 00, 21 projects were inventoried for compliance with Section 106 of the National Historic Preservation Act, as specified in the Forest Plan. As a result, 1,064 acres were inventoried for cultural resources and 13 new archaeological sites were recorded.

Since implementation of the Forest Plan, several American Indian religious rites areas have been identified on the Forest.

## Cultural Resource Inventory Results

Fiscal Year	Number of Projects Inventoried	Number of Acres Inventoried	New Archaeological Sites Recorded
1988	50	3,753	36
1989	22	2,600	17
1990	35	3,137	37
1991	33	4,286	29
1992	33	3,664	37
1993	22	2,290	24
1994	42	3,429	34
1995	71	7,044	42
1996	40	4,605	62
1997	24	1,876	9
1998	34	2,365	23
1999	27	1,101	21
2000	21	1,064	13

In addition to the new sites recorded, 67 previously recorded sites were revisited.

## Adequacy of Cultural Resource Protection

Fiscal Year	Sites Inventoried	Evidence of Vandalism/Damage
1988	10	0
1989	28	3
1990	7	0
1991	42	2
1992	22	0
1993	32	0
1994	28	0
1995	53	0
1996	71	0
1997	66	0
1998	57	0
1999	50	0
2000	67	1

### Evaluation of Monitoring Results:

One of the 67 sites monitored were impacted. Monitoring of the 67 sites revealed that the recommended protection measures were effective.

One current method being used to monitor cultural resources includes resurveying sites and recording any visible effects or changes. This information is documented in site report amendments or updates.

For Forest projects or undertakings with cultural sites, measurements were established for accurately monitoring sites eligible for the National Register of Historic Places. This was accomplished by identification of a permanent datum or controlled mapping point for each site. Recording bearing and distance measurements from the site datum to its boundaries and associated features allowed us to detect and document any changes or effects on a site during monitoring.

With the current cultural Resource Management funding level, it is not feasible to implement this procedure for all known cultural sites (including the ones outside of proposed project areas). An increase in the Heritage budget will be needed in order to develop a systematic procedure for more precise monitoring of sites. This is particularly needed for sites that are surrounded by ongoing management activities or are located along highly used areas such as the Salmon and Selway Rivers.

### **Heritage Projects**

The following were projects undertaken by the Heritage Department of the Nez Perce National Forest. These projects demonstrate the Forests adherence to Section 110 of the National Historic Preservation Act of 1966.

The Nez Perce National Forest participated in Idaho Archaeology Week by developing and hosting a display highlighting the history of packing horses and mules in the Selway Bitterroot Wilderness. Grangeville, Idaho school children and the public also enjoyed a packing demonstration put on by the Moose Creek Ranger District mainline packer with a pack string of mules. The display and demonstration gave the Forest Service an opportunity to share this historic mode of transporting goods and supplies in the early days of the agency. Both the demonstrations and display received a great deal of attention and interest, and provided a great chance to show how our history is preserved and applied on National Forest lands.

The Nez Perce National Forest Heritage Program hosted a Passport in Time (PIT) project at the National Register of Historic Places (NRHP) eligible Square Mountain Lookout in 2000. Six hardworking and enthusiastic volunteers contributed 264 hours to the restoration of this historic log structure located at 8,000 feet and surrounded by the Gospel-Hump Wilderness. This project provided an opportunity for volunteers to work with Heritage personnel as well as historic preservation specialists, while sharing knowledge and developing an appreciation for heritage resources on their National Forests.

The historic Montgomery cabin located along the Elk City Wagon Road was recorded and evaluated for its eligibility to the National Register of Historic Places (NRHP). The cabin was determined to be eligible for the NRHP. This unique cabin should be preserved and restored at some time in the future.

## **ITEM 2d: ACHIEVEMENT OF VISUAL QUALITY**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability That Would Initiate Further Evaluation:** After 5 years of monitoring, an assessment indicates visual quality objectives are not being met.

### **Monitoring Results:**

Visual Resource Management (VRM) classes were mapped forest-wide over 12 years ago, prior to the development and implementation of the Nez Perce National Forest Plan. The major task remains to review the inventoried and interim VRM objectives and adopt them to meet current on-the-ground conditions and Forest Plan direct.

An important step toward achieving visual quality direction occurred in 1989 with the approval of Forest Plan Amendment #4. This amendment added definitions to aid in understanding the terms “adopted”, “inventoried”, and “interim” Visual Quality Objectives (VQO’s). It modified existing standards to remove inconsistencies in VQO’s, to make the standards more attuned to procedures described in United States Department of Agriculture Handbook 462 – The Visual Management System, and to specify a methodology for documenting visual quality objective decisions. VQO’s are now “adopted” for all or part of 34 USGS 7.5 min quadrangles (wilderness are mapped on all or part of 52 quads). These maps are filed at the Forest Headquarters Office.

Visual quality is being considered and documented in most on-the-ground activities. The Forest continues to use paraprofessionals to provide assistance on a project-by-project basis. Documentation of updates/revisions to VQO’s should be more consistent.

Agency-wide, the VRM system is being replaced with a new system called Scenery Management System (SMS). The SMS process incorporates a public involvement component to assist with the determination of scenic values and objectives. The Forest is beginning to incorporate some of the concepts of the new system into different types of analysis, however, the VRM system is still the primary program used for analyzing scenic resources. The landscape character, scenic integrity, and recreation opportunity spectrum chapters of the SMS handbook were used for the South Fork Assessment project.

### **Evaluation of Monitoring Results:**

Progress in understanding and achieving adopted VQO’s is being made on most districts. The scenic resources inventory will use the SMS Handbook. Monitoring and evaluation efforts should be organized and outlined as to type and process. A complete move to the SMS process should occur with the Forest Plan revision.

## **ITEM 2n: MANAGEMENT OF DESIGNATED OR ELIGIBLE WILD, SCENIC OR RECREATIONAL RIVER SEGMENTS**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability Which Would Initiate Further Evaluation:** Following a 5-year period, information which would indicate management direction for designated or eligible wild, scenic, or recreational rivers is not being followed.

### **Introduction**

The Forest leadership team identified river recreation as one of the high priority programs for FY 98. In 1994, the Forest was included in the Wild River country subcategory of the Northern Region's Recreation Strategy with a primary focus on river dependent uses. This attention is understandable recognizing that the Nez Perce National Forest is responsible for management of four classified rivers (Selway, Rapid River, Clearwater, and Main Salmon) and lies adjacent to other classified rivers (Snake River in Hells Canyon, Lochsa, and Middle Fork of the Salmon). In addition, suitability studies have been conducted on ten Forest rivers for possible inclusion into the classified rivers systems and six others have been identified as eligible.

### **Current Situation:**

These rivers provide a wide spectrum for public use and enjoyment. The Selway and Middle Fork of the Salmon are truly Wilderness rivers. The Selway is more pristine and only one launch per day is allowed, while the Middle Fork provides opportunities to float over 100 miles within the Frank Church Wilderness. The Lochsa offers exceptional kayaking and is easily accessed from US Highway #12. Rapid River was classified primarily to protect water quality for anadromous fish and is popular with hikers and stock groups. The Middle Fork of the Clearwater, which also parallels U.S. #12, provides unlimited access to floaters and power boaters. The Snake and Main Salmon River flow through Wildernesses and present the public with opportunities for floating and power boat experiences. Many portions of both rivers are accessible by motor vehicles, aircraft, hikers, and via horseback. In addition, private inholdings along all of these rivers present challenges and opportunities to river managers. Partnerships have been successfully used in collaborative management of resources and preventing or minimizing degradation of the natural setting.

Following is a list of the classified rivers the Nez Perce National Forest is partially responsible for managing. This list is broken down by length, Wild and Scenic River Designation, ROS, and activities associated with the river.



**Classified Rivers on the Nez Perce National Forest**

<b>Attribute</b>	<b>Salmon River</b>	<b>Rapid River</b>	<b>Upper Selway River</b>	<b>Lower Selway River</b>	<b>Middle Fork Clearwater River</b>
Length	79 miles	13 miles	42 miles	19 miles	10 miles
Wild & Scenic Designation	Wild	Wild	Wild	Recreation	Recreation
ROS	Semi-Primitive Motorized to Roaded Natural	Primitive to Semi-Primitive	Primitive	Roaded Natural	Roaded Natural
Resource Values and Activities Associated with River	Motorboats, rafting, private property (including scenic easements), trails, several miles of primitive roads, airstrips.	Grazing, trails, outstanding water quality.	Rafting, trails, some private property, outstanding water quality.	Developed recreation, roads, rafting, and private lands.	Roads, developed recreation, powerboats, private lands.

Accordingly, river management on the Nez Perce National Forest must be viewed in a regional and national context considering how our rivers contribute socially and ecologically to the Wild and Scenic River system.

A report on Item 2n was included in the FY 1999 Annual Monitoring Report. The next report will be in FY 2004 Annual Monitoring Report.

# FIRE, INSECTS, & DISEASE

## ITEM 1k: ACRES AND NUMBERS OF WILD AND PRESCRIBED FIRES

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years (FY 1996)

**Variability That Would Initiate Further Evaluation:** Unusual number of person-caused fires over the 10-year average indicating a trend of specific cause(s). Unusual number of acres burned is unexplainable, such as unusually severe fire danger based on the burning index and the energy release component. Unusually high cost of fire suppression (over the 10-year average); inability to meet expectations contained in the National Fire Management Analysis for the Forest as per budget level allocated for current year.

### Monitoring Results:

The winter and spring period was near average for snow pack, precipitation, and temperature; the result was that the early fire season was normal. The beginning of July began a period of warm nearly rain free weather that lasted for nearly 60 days. Fire Danger indicators increased steadily setting new maximum values. Energy release component rose above the 97<sup>th</sup> percentile for 35 consecutive days, including the entire month of August. The consistently dry air masses that dominated our weather also limited the formation of thunder cells and lightning starts were actually below average. This was a year that was dominated by many challenging fires, and record burned acreages across the Northern Region.

Within the 3 Wildland Fire Use areas on the Nez Perce Forest (Gospel Hump, Frank Church River of No Return, and Selway Bitterroot) 2 fires were managed for benefits, burning 20 acres in FY 2000. The Wildland Fire Use program was constrained by high fire danger and a lack of planning, support, and suppression resources.

### Number of Fires

Type of Fire	1996	1997	1998	1999	2000	5-Year Average
Lightning Fires	301	69	189	145	139	169
Person-caused	18	5	5	16	7	10
Total	319	74	194	161	148	179
<b>Wildland Fire Use (Not included in total)</b>	<b>17</b>	<b>17</b>	<b>19</b>	<b>31</b>	<b>2</b>	<b>17</b>

The Forest hosted two large fires in 2000, Burnt Flats and Three Bears. The Burnt Flats Fire started on Idaho Department of Lands protection and spread onto the National Forest on the second day. The fire affected both the Salmon River and Clearwater Districts burning 15,900 acres of National Forest. The communities of White Bird and Grangeville as well as numerous other structures in the rural/urban intermix were threatened.

The Three Bears fire started as three separate ignitions on the Red River District and one ignition south of the Salmon River on the Payette National Forest. A Wildland Fire Use Team managed this group of wilderness fires, since there was a shortage of Incident Management Teams. Late in August the large Flossie Fire in the Frank Church River of No Return Wilderness burned into the Three Bears Fire. Structure protection along the Salmon River was the emphasis of the fire team. The Three Bears Fire burned 16,600 acres of the Nez Perce N.F.

All of the fires in our area involved boundary issues with partner agencies. This included the large Burgdorf Junction Fire on the Payette N. F., which threatened to cross the Salmon River onto the Nez Perce; and the large Mahoney Creek Fire hosted by IDL, but with logistical and aircraft coordination run through our office in Grangeville.

**Acres Burned by Wildland Fire  
1996-2000**

Type of Fire	1996	1997	1998	1999	2000	5-Year Average
Lightning Fires	41,077	26	2,344	49	33,073	15,314
Person-caused	1,549	3	1	1,752	5	662
Total	42,626	29	2,345	1,801	33,078	15,976
<b>Wildland Fire Use (Not included in total)</b>	<b>28,150</b>	<b>16</b>	<b>1,734</b>	<b>1,272</b>	<b>20</b>	<b>6,238</b>

Additional data is available in the Clearwater/Nez Perce Fire Zone Aviation and Fire Management Annual Report.

The Forest's fire management program was not funded at the most efficient level (MEL) as described by the National Fire Management Analysis System (NFMAS). The Forest was budgeted about 30 percent below MEL. Therefore, fewer fire fighters were available for initial attack on fires.

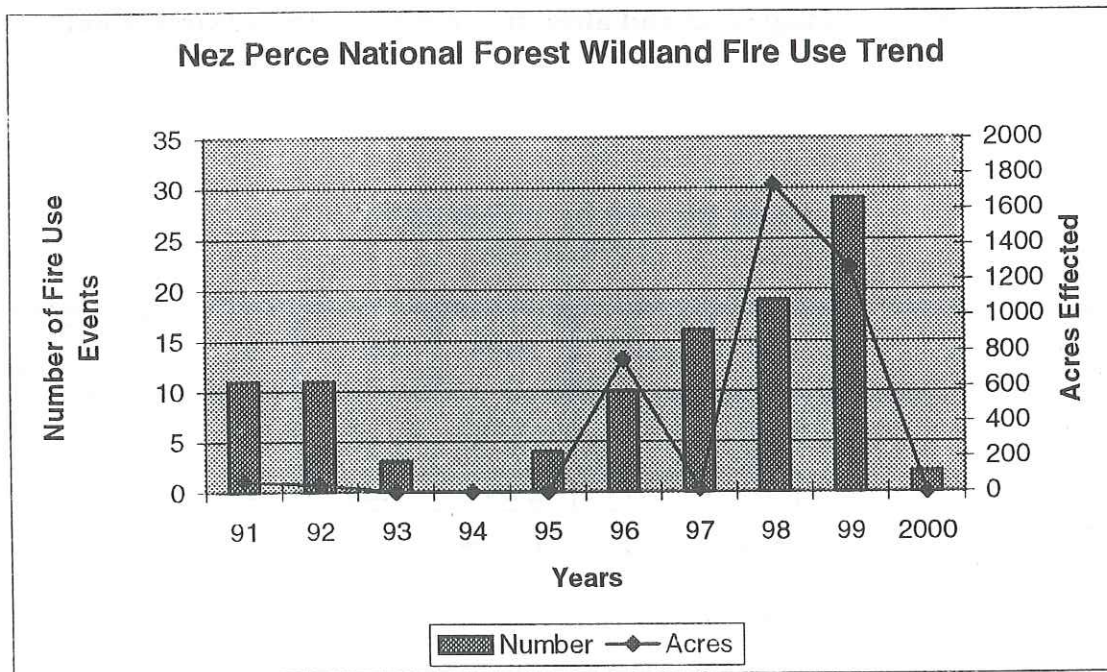
An interdisciplinary team established for the Salmon River Canyon Project continued an interagency and multi-forest effort to produce an environmental impact statement

proposing 214,000 acres of prescribed burning treatments in support of hazardous fuel reduction and ecosystem management.

The Nez Perce National Forest accomplished 9,434 acres of hazardous fuel treatment and 712 acres of brush disposal. This exceeded the MAR and expected Forest Plan outputs for hazardous fuels and fell slightly short of the assigned BD target. Year-end review of BD (trust fund) balances showed adequate funding available to complete all planned work.

The ranger districts reviewed several prescribed burn projects, including Elkhorn Jersey. The monitoring of these projects shows that they are meeting objectives and that sensitive resources are being protected.

The Forest has been a leader in using lightning ignitions to capture the benefits of fire in fire dependent ecosystems. Wildland Fire Use for Resource Benefits has grown steadily over the past decade. Our increasing experience with beneficial fire and line officers willingness to take risks, have combined to increase the acres positively effected by fire use. (see chart below)



The Nez Perce National Forest, along with other federal, state, and private agencies of the North Idaho Airshed Group, continued their dialogue and cooperation to minimize or prevent the accumulation of smoke in Idaho to meet state and federal ambient air quality standards. (See the air quality discussion.)

## ITEM 7: INSECT AND DISEASE ACTIVITY

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** Significant increases in population or damage levels of insects or diseases.

### Monitoring Results

**Douglas-fir bark beetle:** As in 1999, populations of Douglas-fir bark beetle continued to rise. Aerial Detection Surveys completed and analyzed by Forest Health Protection staff show a steady increase in populations since 1995. Faded trees are grouped, and the number of trees in each group has increased as has the total number of groups. Populations generally decline after two or three years, but this outbreak has been unusually long-lived. We have assisted with ongoing research being done by a scientist from Oregon State.

**Mountain pine beetle:** Forest Health Protection specialists conducted a field review to monitor mountain pine beetle conditions on the proposed Fitness Timber Sale, Red River Ranger District. A majority (58 percent) of the mountain pine beetle activity in lodgepole pine has been on the Red River District over the past 4 years. Mountain pine beetle is also affecting white bark pine forests. Forest Health Protection personnel expect that mountain pine beetle populations in lodgepole pine on the Red River district will continue to rise for the next three to five years. Mature lodgepole pine cover types may be functionally removed across entire drainages.

**Western balsam bark beetle:** Mortality from this beetle and from the balsam wooly adelgid is difficult to distinguish from aerial surveys. Both are part of a larger complex of pests responsible for a general decline in subalpine fir throughout its range. Aerial surveys on the Nez Perce National Forest show intermingled patches of mortality from both this beetle and the adelgid. The effects of the two insects, together with other unidentified pests, have resulted in widespread mortality in subalpine fir here. Mortality attributed to the bark beetle is concentrated in the higher areas of the Forest, across the headwaters of Newsome Creek and American River, and the Orogrande Summit/Dixie area.

**Balsam wooly adelgid:** This insect was first detected in Idaho in the early 1980s. It infests true firs and is particularly destructive to subalpine fir, which it can kill in as few as three years. Higher areas of the Forest, across the headwaters of American River and Newsome Creek, and on Coolwater Ridge, have been experiencing annual mortality attributed to this insect. The recommendation from Forest Health Protection is to establish impact plots in areas with ongoing mortality in order to assess the effects of the adelgid.

**Root rots:** In combination with various bark beetles, root rots are causing a pervasive loss of canopy cover. *Armillaria* root disease is affecting both Douglas fir

and grand fir. *Schweinitzii* root rot is affecting Douglas fir. *Annosus* root disease is affecting large, old ponderosa pines and Douglas-firs and contributing to their decline.

**White pine blister rust:** Whitebark pine is being severely affected by blister rust, and is a major contributor to a precipitous decline in whitebark pine populations.

**Anthracnose:** This fungus continues to affect the coastal disjunct population of Pacific dogwood in the Selway River drainage. Mortality has been high, and surviving plants are in poor condition. Monitoring plots have been established and are checked periodically as funding permits. No change in the downward trend is evident.

### **Evaluation of Monitoring Results**

- Mortality in subalpine fir, affecting forest composition, structure, and density, could have long-term effects on lynx habitat.
- While losses from bark beetles and root rots are not at a critical level yet, continued losses could reduce canopy levels to the point that watersheds are affected. Concentrations of dead trees are certainly a risk factor for Wildland fire ignition. The Red River drainage in particular is at risk to fire ignitions and has the potential to cause additional damage in a watershed system already below standard.
- Large, old ponderosa pines, a unique resource, are at risk from a combination of *Annosus* root disease, stem decay (predisposes the tree to being killed even by small ground fires), bark beetles, and wildland fire with increased fuel loads.
- Whitebark pine forests are continuing to disappear due to the combined effects of blister ruse, mountain pine beetle, and a lack of regeneration opportunities.

Subbasin and watershed assessments have recognized these disturbance processes, and their role in the ecosystem. Project analyses and subsequent vegetation treatments address them as they occur in project areas. Silvicultural prescriptions will incorporate a further step-down of the broad scope of ecosystem processes to individual stands, so that treatments are consistent with ecosystem functioning. Annual monitoring of insect and disease conditions will continue, and contribute to our understanding of disturbance trends.

# FACILITIES

## ITEM 2k: MITIGATION MEASURES USED FOR AND IMPACTS OF TRANSPORTATION FACILITIES ON RESOURCES

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability Which Would Initiate Further Evaluation:** If reviews or studies indicated that mitigation was not being implemented as specified or if effectiveness was not near the levels predicted.

### **Discussion:**

Facilities on the Nez Perce National Forest include buildings, administrative sites, property boundaries, and the Forest road and trail transportation system. Construction and maintenance of all facilities improves the safety and health of both Forest employees and the visiting public.

### **Buildings and Administrative Sites**

Monitoring the health and safety of Forest buildings and administrative sites is not a monitoring requirement of the Forest Plan. Federal, state, and local laws and regulations govern the construction, maintenance, and use of structures, potable water systems, and sewage treatment systems.

Due to a program of regular annual inspections and forest-wide prioritization of maintenance projects, all Forest buildings, water systems, and waste water systems that are in use meet basic structural and public health and safety standards. When new research reveals potential hazards to employees and Forest visitors, testing and monitoring is done and mitigation or removal is completed to prevent human exposure to hazardous materials such as lead, radon, and asbestos in buildings, air, and water. Results of long-term radon monitoring on a regular basis across the Forest show that radon levels are acceptable except in the Slate Creek Office, where further radon mitigations measures were implemented in 2000.

Construction work completed in 2000 included installation of an electric pump and water hydrants at Fish Creek campground on the Clearwater Ranger District.

Major repair and maintenance projects included warehouse painting and sewer access port replacement at Red River Ranger Station.

The Forest has three "public community" water systems that serve the Fenn, Red River, and Slate Creek Ranger Stations. There are also two seasonal work center systems and ten seasonal use lookout and recreation water systems currently

operating. One system is operated by a recreation site permittee. Bacteriological monitoring of all operational water systems is completed monthly. Due to problems with aging water collection and distribution systems along the Selway River, four small campground water systems were closed and will remain closed until funding is obtained to rehabilitate the systems. This year, extensive chemical testing was required for all our public community systems. These tests were completed and showed no water quality problems. If any systems fail quality requirements, the problems must be corrected or the system closed to use.

The Forest maintains three sewage treatment plants, one each at Fenn, Red, River, and Slate Creek Ranger Stations. Effluent from these plants is tested monthly in accordance with each site's National Pollution Discharge Elimination System (NPDES) permit requirements. The information from these tests is forwarded to the Environmental Protection Agency.

### **Property Boundaries**

There are approximately 450 miles of boundary between Forest land and private landowners. Three hundred forty nine (349) miles have been retraced and posted to standard with approximately 113 miles remaining to be posted. In addition to the property lines, there is an estimated 330 miles of wilderness boundaries on the Forest. Maintenance of the existing posted boundaries continues at about 25 miles per year. Due to more difficult terrain and areas where corners have not been reestablished for nearly 100 years, the rate of boundary location is now about 4 miles per year.

With the advent of the new IBM computer system, the Land Net is being loaded into Automated Lands Program (ALP) for a GIS layer.

### **Right of Ways**

Although no new roads or trails are planned across private property, the Forest has a substantial backlog of roads and trails, which have been managed under prescriptive/appropriate rights. The Forest is currently working on several rights-of-ways.

### **Transportation System (Roads and Trails)**

Monitoring is conducted during project planning, implementation, and throughout the duration of use. Project planning provides rationale for required mitigation. Upon implementation, monitoring is continuous during contract administration as documented in contract daily diaries and during program management as documented in the facility maintenance records.

Monitoring is also performed during interdisciplinary project reviews and in the annual program review.



Mitigation is accomplished using a combination of practices and specified measures. Five specific practices are:

1. Transportation Planning, which is a detailed office effort using maps, photos, historical data, GIS data, land hazard information, and geotechnical information to identify and avoid possible stability problems and mass hazard areas and to hold road mileage to the lowest possible.
2. Route location, which ground-truths the results of the planning, refines locations, and provides further information on possible problem areas.
3. Contract preparation, which assures that mitigation measures are incorporated into drawings and specifications to be followed when the facility is built.
4. Administration, which assures compliance with the contract.
5. Maintenance, which assures that the facility continues to function and provide the level of mitigation originally intended.

In addition to Best Management Practices and the practices listed above, specific design measures can be employed to reduce effects of facilities on resources. Some of these measures are:

6. Designed and controlled cut slopes, fill slopes, road width, and road grades. These effectively reduce sediment production by fitting the roads to the land.
7. Designed and controlled ditches, cross drain spacing, and culvert discharge. These prevent water from running long distances over exposed ground. Dewatered (dry) culvert installations and special drainage such as rock filter blankets and rock buttresses were demonstrated to be effective in the Horse Creek study.
8. Stabilization of road surface and ditch lines with competent rock (rock that does not rapidly disintegrate). The effectiveness of this measure in reducing surface erosion from these sources is dramatic, often over 90 percent.
9. Slash filter Windrows. This measure was developed on the Nez Perce Forest as part of the Horse Creek study. It consists of placing logging slash at the base of fill slopes and below culverts where fish passage is not required. It is very effective treatment: sediment leaving fill slopes is reduced by 80 to 90 percent.
10. Seeding and fertilizing cut slopes, fill slopes, and other disturbed areas. The objective is to reduce soil erosion from these sources after one growing season. Effectiveness has been rated at 85 percent or better once vegetation has become established.

Some of these measures are immediately effective, such as culvert dewatering. Slash filter windrows are effective immediately and during the first few years; after

that they may become near capacity and in some instances begin to decompose. By that time though, revegetation becomes established and more effective.

Additional mitigation, in the form of project design in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service through the Level 1 consultation process, is not an integral part of every project. This process has been established in response to requirements of the Endangered Species Act. As a result of this process, each project receives joint evaluation and assessment of potential impacts and site specific mitigations are selected to address potential for resource impacts.

## **Monitoring Results:**

### **Implementation Monitoring**

All engineering projects for FY 2000 included specific mitigation measures to reduce the impact of facilities on resources. The following mitigation measures were used (not all were used on every project).

- Windrowing of construction slash at the toe of fill slopes.
- Rock surfacing of the entire road or at contributing areas.
- Layer placement and compaction of major fills.
- Grass seeding and fertilizing of cut/fill slopes and disturbed areas.
- Rocking of ditch lines.
- Straw bales to control erosion.
- Temporary waterbars to control erosion.
- Special project specification 204 (SPS 204) to control timing of installation of mitigation measures.
- Installation of gates and/or barriers to control traffic.
- Permanent waterbars (for trails).
- Controlled Timber haul.
- Placement of durable pit run rock blanket on fill slopes at major culvert installations to control erosion.
- Installation of drop inlets at critical locations to control erosion.
- Construction of rock buttress retaining structures.

## Mitigation Measures Implemented on Projects Awarded in FY 2000

Project	1	2	3	4	5	6	7	8	9	10
Year 2000 Culverts and Road Repair	N/A	N/A	X		X	X	X		N/A	X
Elk City compound Paving	N/A***	N/A	X				X	N/A	N/A	
Lodge Point Obliteration	N/A	N/A	N/A	N/A	X	X	X	N/A		

\*\*\* No sediment mitigation specifically planned, however the asphalt surface will reduce sediment.

### Table Key

- 1 - Planned Sediment Mitigation (%)
- 2 - Windrow Slash
- 3 - Asphalt/Rock Surfacing
- 4 - Rock Ditches
- 5 - Grass Seeding Fertilization
- 6 - Straw Bales/Mulch
- 7 - SPS 204
- 8 - Layer Place Fills
- 9 - Temporary Waterbars
- 10 - Gates, Traffic Control

## Road Construction Levels - Nez Perce National Forest (MAR)

Year	Reconstruction (Miles)	Construction (Miles)	Obliteration (Miles)
Forest Plan	30	53	N/A
1988	53	53	
1989	152	37	
1990	91	49	
1991	144	84	
1992	101	30	2
1993	77	30	2
1994	5	14	0
1995	2	9	5
1996	4	5	3
1997		0	10
1998	21	0	18
1999	27.5	0	22.3
2000	13.1	0	19.9

## Road Maintenance

The level of maintenance varies by road. Level 1 maintenance is applicable to roads with no motorized traffic and addresses priority items to prevent resource damage. Level 2 maintenance is applicable to roads maintained for high clearance vehicles. Maintenance levels 3 through 5 are performed on the open road system maintained to provide for passenger car travel. One thousand eight hundred seventy five (1,875) miles were maintained to road management objectives. A total of 3885 miles were maintained in FY 2000.

### **ITEM 21: ADEQUACY OF TRANSPORTATION FACILITIES TO MEET RESOURCE OBJECTIVE AND USER NEEDS**

**Frequency of Measurement:** Continuous

**Reporting Period:** 5 years

**Variability Which Would Initiate Further Evaluation:** If public opinion is significantly against the Nez Perce National Forest access management program or the program shows serious negative impacts upon resources.

**Discussion:** The monitoring of this item is continuous. Due to the nature of transportation systems, their impacts upon management and use of the Forest, monitoring is both important and complex. Consequently, monitoring information comes from a variety of sources: Facility maintenance records, environmental assessment documents, public letters and requests, and biological evaluations. The Nez Perce Access Management Guide also contains methodology and documentation designed to assist in monitoring.

#### **Monitoring Results:**

##### Access Management

###### Road System

- Inventory:

The current Forest inventory (October 2000) shows 3,885 miles of road in the Forest Development Road System. Of this, 1022 miles are open and the remaining 2863 miles are either closed to all vehicular traffic or have use and vehicle restrictions on them.

In 2000, the Forest updated the "Road and Trail Access Guide" (an itemized listing of access prescriptions for Forest roads and trails). This was produced as a complement to the Forest Visitor Map in an effort to provide more complete information to Forest visitors.

Timberliners Snowmobile Club – Elk City, Idaho; and Ridge Runners Snowmobile Club – Dixie, Idaho.

Funds supporting this grooming come from two sources:

- (1) An 85 percent return annual snowmobile registration fee to Idaho County.
  - (2) The largest percentage is from moneymaking events sponsored by the local sponsors.
- 2) The Clearwater Ranger District, in cooperation with the State of Idaho Department of Parks and Recreation, and the Idaho County Commissioners, offer opportunities for Nordic skiing. This consists of 22.1 kilometers of groomed trails at various levels of difficulty and 15.2 kilometers ungroomed/"most difficult" trail. These trails are located at the Fish Creek Recreation Area.

The system is part of the State Park 'N Ski program, which provides most of the funding for grooming.

#### **Evaluation of Monitoring Results:**

Approximately 70 percent of the Forest's roads are restricted. Maintenance of restriction devices and information is ongoing.

Timberliners Snowmobile Club – Elk City, Idaho; and Ridge Runners Snowmobile Club – Dixie, Idaho.

Funds supporting this grooming come from two sources:

- (1) An 85 percent return annual snowmobile registration fee to Idaho County.
  - (2) The largest percentage is from moneymaking events sponsored by the local sponsors.
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The system is part of the State Park 'N Ski program, which provides most of the funding for grooming.

#### **Evaluation of Monitoring Results:**

Approximately 70 percent of the Forest's roads are restricted. Maintenance of restriction devices and information is ongoing.

# MINERALS

## ITEM 2m: ADEQUACY OF MINING OPERATING PLANS AND RECLAMATION BONDS

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 5 years

**Variability Which Would Initiate Further Evaluation:** Operating plans which need to be updated, modified; bonds which need to be increased, decreased or returned; or case files which can be closed out.

### Monitoring Results:

In order to meet Forest Plan direction in minerals, it is necessary to have Plans of Operations that contain adequate measures to protect surface resources. It is also important that mining operations be implemented in accordance with the approved plans. Reclamation bonds must be adequate to cover reclamation of areas disturbed by mining. However, once the operator completes reclamation work, the bond needs to be released. This item measures how well the Forest is implementing the Forest Plan in these areas. Monitoring data is obtained from case files, routine inspections by district employees, and interdisciplinary team field reviews.

There were 29 active Plans of Operation in FY2000

The following table displays this data.

Ranger District	Active Plans of Operation	Plans Needing Modification	Bonds Needing Revision	Bonds Needing Release
Salmon River	9	0	0	0
Clearwater	0	0	0	0
Red River	20	0	0	0
Moose Creek	0	0	0	0
Total	29	0	0	0

The Forest Plan management direction for minerals states, "Exploration and development of mineral resources will be facilitated by providing timely responses to Notices of Intent and Operating Plans." In recent years issues concerning cultural resources, threatened and endangered fish species, in addition to greater analysis needs relating to watersheds and riparian areas, have greatly slowed response times to mining proposals. Regulation timeframes are not met. The minerals budget is down from previous years, that combined with a smaller workforce means we will probably not be able to correct this problem.

In FY00 the Forest continued to monitor and administer recreational suction dredging to prevent conflicts with ESA listed fish species. Also NFMA and NEPA work on four commercial suction dredging proposals was emphasized in the last quarter. Administration of existing plans of operations was highest priority throughout the year.

The following table compares the above figures with those from previous years. Zero percent in each category would indicate the lowest degree of variation from Forest Plan direction.

<b>Year</b>	<b>Plans Needing Modification (% of total plans)</b>	<b>Bonds Needing Revision (% of total plans)</b>	<b>Bonds Needing Release (% of total plans)</b>
1998	13%	11%	Unknown
1989	6%	15%	7%
1990	9%	9%	8%
1991	7%	15%	3.5%
1992	4%	6%	0%
1993	20%	54%	23%
1994	6%	121%	50%
1995	1%	64%	24%
1996	<1%	39%	13%
1997	15%	37%	4%
1998	44%	44%	0%
1999	7%	6%	0%
2000	<1%	0%	0%

There are still some instances of unnecessary disturbance to surface resources due to unauthorized mining operations. In FY 00, we saw a reduction in interest by large mining companies, but a continued interest by recreational miners.



# ECONOMICS

## **ITEM 3: COST OF IMPLEMENTING RESOURCE MANAGEMENT PRESCRIPTIONS**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability Which Would Initiate Further Evaluation:** Changes in appropriations and expenditures to the degree that accomplishment of the Forest Plan's long-term goals and objectives are affected will necessitate a Forest Plan Amendment.

### **Discussion:**

The Forest's future program is reviewed and updated annually. Future program planning is no longer an attempt to project costs of fully implementing the Plan. Instead, the Forest redistributes funds among resource areas to show current priorities, but with a total similar to past funding levels.

### **Monitoring Results:**

Table 2, found in the beginning of this report, displays budget allocations and actual expenditures for the fiscal years 1998, 1999, and 2000. Dollars have been adjusted to constant FY 2000 values.

Table 3 displays projected annual costs for FY 2001.

Corresponding activities and outputs for the year 1998, 1999, and 2000 are displayed in Table 1.

### **Evaluation of Monitoring Results:**

Past monitoring has shown that funding received has consistently been less than full Forest Plan funding levels. This situation will likely continue. It is unclear what effect these decreased budgets will have on the long-term goals and objectives of the Forest Plan. However, the activity and output levels of some resources projected at full Forest Plan funding levels have not been attained and will likely not be attained in the future.

**\$ Implementation Funding**  
**(in Millions of Dollars)**  
**FY 1988-2001**

<b>Fiscal Year</b>	<b>Expenditures</b>	<b>Planned</b>
1988	17.3	
1989	19.0	
1990	19.9	
1991	19.7	
1992	17.7	
1993	20.1	
1994	21.0	
1995	23.8	
1996	19.1	
1997	16.3	
1998	17.6	
1999	17.1	
2000	15.7	
2001		15.7

The previous table displays funding levels expended by the Forest over the past 13 years and the projected funding level for FY 2001. Dollars for all years have been adjusted to 2000 dollars. The effects of this funding level can be seen in the sections of this report describing individual resource areas.

**ITEM 3a: FOREST RESOURCE-DERIVED REVENUES**

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** 10 years

**Variability That Would Initiate Further Evaluation:** Any change in resource-derived revenues altering the implementation of Forest Plan long-term goals and objectives will necessitate a Forest Plan Amendment.

**Discussion:**

Resource outputs to which dollar values were assigned constitute the priced benefits included in the FORPLAN PNV (Present Net Value) calculations. While both market and non-market benefits were used in the Forest Plan to determine total price benefits, only certain resource benefits were used to determine the allocation and scheduling of prescriptions in FORPLAN. Only timber and range revenues are used in calculating returns to the government.

## Monitoring Results:

### Timber and Range Revenues

(All figures are in 2000 dollars)

Fiscal Year	Timber	Range
FP Projection	17,284,001	58,000
1988	6,130,615	46,416
1989	9,504,112	49,840
1990	8,582,713	52,350
1991	5,561,303	44,763
1992	9,248,719	43,565
1993	10,047,380	43,570
1994	17,648,135	46,487
1995	5,866,486	36,410
1996	6,526,911	28,444
1997	2,946,707	29,049
1998	5,941,871	27,191
1999	2,613,770	26,036
2000	3,026,107	26,753

#### Timber Revenues:

The differences between projected Forest Plan timber revenues and actual timber revenues in FY 1988 – FY 1993 were due to two factors. First, we did not experience stumpage values as high as predicted in the Forest Plan. Second, timber harvest acres in FY 1988 – FY 1993 were considerably lower than the predicted average annual harvest displayed in the Forest Plan (Table 1).

In addition, the revenue decrease from 1990 to 1991 was largely a result of the use of different accounting methods. In particular, established purchaser credits for roads were used in 1990, while charged purchaser credits for roads were used in 1991. The method of depreciating roads changed again in 1991.

The revenue increase from 1991 to 1994 was due to the higher volume of timber harvested, higher prices, and an evening out of the accounting method used for purchaser credit for roads that had been changed in the previous year.

The revenue decrease from 1994 to 1995 was due to fewer acres being harvested in 1995. This trend continued through 1995, 1997, 1999, and 2000. The revenue increase in 1998, an exception during this period, was due to the extremely high value of the timber in a single sale.

Prior to the completion of the Forest Plan, sensitivity analysis was performed examining the effect of lower stumpage values on land allocation. Appendix D of the

Forest Plan Final Environmental Impact Statement (EIS) discusses this analysis. The analysis illustrated that while there would be significant changes in revenues, there would be little change in the programmatic allocation of the Forest Plan.

**Range Revenues:**

Differences between projected Forest Plan range revenues and actual range revenues are attributed to changes in grazing fees and a change in how revenues are calculated.

The range revenues in the Forest Plan were incorrectly calculated by multiplying the 1986/87 grazing fee against the permitted Animal Unit Months (AUMs) instead of Authorized Head Months of use. Range revenues are correctly calculated by multiplying the current grazing fees against the Authorized Head Months of use. A "Head" is defined as a grazing animal, six months or older.

In fiscal year 2000, grazing fees were \$1.35 per head month for cattle and horses, and \$0.27 for sheep. In 2000, 17,773 cattle and horse head months and 10,222 sheep head months were billed.

**Evaluation of Monitoring Results:**

It is unclear what effect the difference in revenues received and expected will have on the Forest Plan's long-term goals and objectives.

# EFFECTS ON OTHERS

## ITEM 8: EFFECTS OF NATIONAL FOREST MANAGEMENT ON LANDS, RESOURCES, AND COMMUNITIES ADJACENT TO THE FOREST

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** Unacceptable effects determined by the Forest Interdisciplinary Team.

### **Discussion:**

The Nez Perce National Forest is managed to do what is best for the land and resources that we hold in trust for the American people. Often those most affected by this management direction are the communities and organizations adjacent to the Forest.

Most Idaho communities and agencies are affected to some degree by activities and management direction of the nearby national forest. One of the most obvious is payment in lieu of taxes (the 25 percent funds) generated from sale or lease of resources, permits, and other income generated on national forest lands. Other effects are wages from the federal work force, income from recreation and tourism, raw material to industry, cooperative agreements between agencies and the Forest Service, and demographic trends that may to some degree be attributable to activities on or condition of national forest lands.

Following are some examples of the effects of management on the Nez Perce National Forest on adjacent communities and agencies in FY 2000.

- Payments to Idaho County from the sale of timber, grazing, fees, other income, etc. from the Nez Perce Forest total \$ 775,555.90 in FY 00. Payments to Idaho County from all national forests were \$ 953,436.98; which includes the Bitterroot National Forest (\$35,739.83) and the Clearwater National Forest (\$142,141.25). The majority of funds from the Nez Perce National Forest were from the sale of timber. The following table displays payments (all receipts) to Idaho County from the Nez Perce National Forest since 1988.

**Payment to Idaho County  
From Nez Perce National Forest  
(all receipts)**

<b>Fiscal Year</b>	<b>Nominal Dollars</b>	<b>Constant 2000 Dollars</b>
2000	\$ 775,556	\$ 775,556
1999	666,237	679,546
1998	1,461,044	1,509,586
1997	714,852	747,453
1996	1,576,746	1,679,745
1995	1,217,808	1,322,789
1994	3,872,891	4,308,003
1993	2,197,978	2,503,989
1992	2,042,981	2,388,858
1991	1,303,797	1,569,254
1990	1,276,546	1,602,432
1989	1,243,278	1,625,408
1988	995,846	1,357,002

- Primary lumber production facilities in the local area (Idaho, Lewis and Nez Perce counties) depend upon national forest logs for raw materials. For a sawmill to be viable it should maintain a two to three year supply of raw material under contract at all times. The following table shows the uncut volume remaining under contract compared to the volume sold and volume harvested each year since 1987 on the Nez Perce National Forest. Obviously the supply of raw material (volume sold) from the Nez Perce National Forest has declined since 1991. The effect likely could be added dependence on other BLM, State, Nez Perce Tribal, or private timberlands for raw materials.

**Remaining Timber Volume Under contract  
And Timber Volume Harvested and Chargeable Volume Sold  
(All volume figures are in millions of board feet)**

<b>Fiscal Year</b>	<b>Timber Harvest</b>	<b>Timber Sold</b>	<b>Volume Under Contract</b>
1987	89.1	92.6	235.9
1988	72.9	108.5	290.0
1989	99.5	77.6	243.6
1990	93.4	83.2	220.0
1991	72.8	102.6	255.0
1992	81.4	15.6	189.8
1993	69.2	42.4	162.1
1994	89.9	13.0	75.2
1995	38.8	13.9	60.7
1996	38.3	28.1	54.1
1997	19.4	21.6	63.3
1998	29.8	22.4	55.9
1999	14.7	13.8	64.9
2000	16.0	2.3	54.9

- Total expenditures for fiscal year 2000 were \$30,604,038. These expenditures included funds based on annual appropriations to the Nez Perce National Forest by Congress, trust fund limitations, State and Private funding, emergency (flood, disaster, wildfire, and federal highway) allocations, and reimbursed funds. Beside salaries, rent, and other operational expenses, revenues are distributed to local economies through formal contracts (\$572,754), small purchases (\$375,686) and fire related purchases (\$11,000,000).
- The cooperative effort called the Clearwater Basin Elk Habitat Initiative has been pooling USFS resources and involvement by state, federal, and private entities to help restore local elk herds.
- The Forest provides the setting for a variety of recreation experiences. Over 500,000 recreation visitor days are estimated annually for such uses as camping, viewing scenery, boating, hunting, cross country skiing, snowmobiling, and fishing. The Forest is nationally known for the quality of big game hunting and white water boating. Winter sports and wildlife viewing are also increasing. The effects of these activities contribute to area economies and perhaps even real property values.
- Many rivers and streams on the Nez Perce National Forest flow onto adjacent ownerships. Management activities of watersheds on the Forest may affect

water quantity and quality off the Forest. Some of these effects are monitored and reported in the Soil and Water section of this report under item **2h**.

**Evaluation of Monitoring Results:**

The decrease in the quantity of timber offered and sold to industry seems to be one of the most obvious effects of present management of the Forest on adjacent communities and agencies. It has prompted support for turning management, especially timber management, over to the State of Idaho.



## ITEM 9: EFFECTS OF OTHER GOVERNMENT AGENCIES' ACTIVITIES ON THE NATIONAL FOREST

**Frequency of Measurement:** Annually (October 1, 1999 – September 30, 2000)

**Reporting Period:** Annually

**Variability That Would Initiate Further Evaluation:** Unacceptable effects determined by the Forest Interdisciplinary Team.

### Monitoring Results:

- **State of Montana and State of Idaho (Air Quality):** The Forest joined the Montana/North Idaho Airshed Group in 1990. This group's objective is to minimize or prevent impacts from smoke in North Idaho and Western Montana and to meet national ambient air quality standards when conducting prescribed burning. The Airshed Group was effective in meeting the national ambient air quality standards in 2000. The Forest follows daily smoke management advisories provided by the monitoring unit (Airshed) administrator and meteorologist.
- **State of Idaho Department of Lands (IDL):** The agreement of the State of Idaho and federal land management agencies was rewritten in 1996. One of the changes was to make the exchange of resources easier. This agreement remains in effect.

The Nez Perce Forest and Idaho Department of Lands are both covered under a Master Cooperative Fire Protection Agreement, and 2000 Statewide Annual Operating Plan. One of the key features of the current plan is the operation of an Interagency Dispatch Center in Grangeville. Nez Perce Forest Headquarters Office was used as expanded dispatch center for Burn Flats fire.

- **Nez Perce Tribe:** The Nez Perce National Forest was one of five forests that signed a one-year experimental Memorandum of Understanding (MOU) with The Nez Perce Tribe in 1998. This particular MOU exempts tribal members from paying campground fees at developed campgrounds, and from forest stay limits when the member is engaged in tribal hunting, fishing, or gathering activities. Forest Service law enforcement has coordinated with Tribal law enforcement to enforce the MOU and to deal with any protests by tribal or non-tribal members.
- **Idaho Department of Environmental Quality (DEQ):** The Forest coordinated with the Clearwater and Salmon River Basin Advisory Groups. These groups were formed by the State of Idaho primarily to coordinate activities pertaining to Water Quality Limited Streams and the Governor's Bull Trout Recovery Plan. In 2000, the Forest contributed to 303(d) assessments in the Lower Selway, Middle Salmon/Chamberlain, and South Fork Clearwater subbasins.

- **Idaho Department of Water Resources (IDWR):** Under provisions of the Stream Channel Alteration Act, the Forest consulted with the IDWR with respect to activities affecting stream channels. The Department is also involved in administering the Snake River Water Rights Adjudication.
- **State of Idaho Outfitters and Guides Licensing Board:** Through formal agreement, the Forest Service and the Board coordinate the permit and enforcement process for outfitters and guides providing public services on national forest system lands.
- **Idaho Department of Fish and Game (IDFG):** IDFG works with the forest in both a collaborative role and a resource advocacy role. Their involvement in FY 00 included:
  - Elk mortality research and incidental wildlife information gathering;
  - Information and support to assessments of TES issues on the Forest;
  - Transplantation of mountain goats into wilderness lands to help maintain population viability;
  - Participation in developing various species conservation assessments and strategies;
  - Input/collaboration to provide updating and winter surveys for elk and bighorn sheep populations;
  - Continuation of the interagency bull trout inventory work in the South Fork Clearwater Subbasin; and
  - High lake baseline surveys to inventory fish populations and physical lake characteristics.

IDFG activities in big game monitoring, research, collaboration in species conservation assessments provide added support and help eliminate duplicated work. Also, IDFG scrutiny of Forest programs may at time complicate and expand the level of detailed planning required to implement management actions.

- **Idaho Soil Conservation District (ISCD):** The ISCD is the lead agency on the Red River Wildlife Management Area restoration project. The project is located on lands administered by the Idaho Department of Fish and Game and potentially on private lands. The Forest provided technical and administrative assistance on the project in 2000.
- **Idaho State Historical Preservation Office (SHPO):** The Idaho State Historic Preservation Office (SHPO) monitors the Nez Perce National Forest's compliance with Section 106 of the National Historic Preservation Act of 1966.

The office reviews all cultural resource reports and site record forms. If a cultural resource is to be impacted by a Forest activity, the impact is mitigated through consultation with SHPO.

- **Idaho Department of Parks and Recreation:** The Forest cooperated in the following grants administered by the State of Idaho, which were completed in FY 2000.
  - **Waterways Improvement Fund:** Installed a larger toilet facility with changing wings at Spring Bar Boat Ramp.
  - **Off-Highway Motorized Vehicle Grants:** Centennial Trail reconstruction of 14 miles of ATV trails, providing drainage structures in Florence area.
  - **Recreation Trails Program Grants:**
    - **Rackcliff Trail #702** - Reconstructed 2.5 miles of motorized trail.
    - **Elk City Wagon Road** - Provided directional signing along the route.
- **Idaho Division of Aeronautics:** The Division periodically inspects backcountry airstrips on the Forest and remains involved in new proposals and management of backcountry airstrips.
- **Idaho Conservation Data Center (ICDC):** The Forest cooperates with ICDC in developing conservation strategies and conducting presence/distribution surveys for sensitive plants. ICDC also provides numerous data queries about rare species sightings for biological evaluation. Each year ICDC provides the Forest the State rare element occurrence database. The database simplifies needed data gathering and analysis required during NEPA analyses.
- **Idaho County and Highway Districts:** The Forest works to cooperate on road maintenance with Idaho County and the Highway Districts on road sections covered by agreements. Idaho County provides fiscal cooperation with snowmobile funding in support of the snowmobile trail grooming program as well as cooperating with snow plowing services for local Park and Ski and snowmobile programs. The Forest's programmatic road maintenance requirements are being incorporated into all the cooperative road agreements.
- **Idaho County Weed Control:** The Forest works in close cooperation with Idaho County Weed Control in the management of noxious weeds and other exotic plants. The Forest and Idaho County Weed Control share resources and skills in implementing an integrated weed program across Idaho County and work together to improve the coordination and integration of weed programs.

- **Nez Perce Tribe/Columbia River Inter-Tribal Fish Commission:** The Nez Perce Tribe, as in previous years, assisted the Forest in cultural awareness, recruitment, and training activities. This assistance was of value in helping diversify the workforce and accomplish resource management objectives. The Nez Perce Tribe is sponsoring a young horsemen's program called Appaloosa. This group will concentrate on learning packing skills through an outfitted educational trail ride program. The Forest Service is supporting this activity by teaching packing skills with both Forest and 9 Mile Pack Train teams.
- **U.S. Army Corps of Engineers (COE):** The COE was consulted on projects involving wetlands and stream channels under provisions of Section 404 of the Clean Water Act.
- **U.S. Fish and Wildlife Service (USFWS):** The USFWS provided Endangered Species Act, section 7, informal consultation support and/or concurrence on biological assessments for listed and proposed species on the Forest. In addition, the USFWS provided technical assistance and support in the development of conservation assessments and strategies for several species found on the Nez Perce National Forest. This data will be provided for a statewide repository of information related to wolf, peregrine falcon, bald eagle, grizzly bear, and bull trout recovery efforts. USFWS activities and processes required by law at times may further complicate and temporarily delay forest activity decision processes.
- **Bureau of Land Management (BLM):** The BLM and Nez Perce National Forest were involved in cooperative cadastral surveys. This was very beneficial to both agencies, with excellent results. An annual coordination meeting takes place. Activities coordinated include timber, range, mining, recreation, and water monitoring.

The Nez Perce Forest and Cottonwood BLM are both covered under a Master Cooperative Fire Protection Agreement, and 2000 Statewide Annual Operating Plan. One of the key features of the current plan is the operation of an Interagency Dispatch Center in Grangeville.

- **Bonneville Power Administration (BPA):** The Forest has continued working with BPA funds and several agencies and landowners to improve fish habitat, stream channel stability, and riparian conditions. Projects include channel restoration along several miles of Red River that is located on state and private lands, continued restoration work with the Nez Perce Tribe in McComas Meadows, and operation of the sediment trap below the Haysfork glory hole.
- **National Marine Fisheries Service (NMFS):** The NMFS provided Endangered Species Act, section 7, informal consultation support and/or concurrence on biological assessments for listed and proposed species on the Forest. In addition, NMFS provided technical assistance and support for the development of several conservation assessments and strategies for Forest species. The Forest continues working with NMFS in the Level 1 consultation process.

- **Idaho Department of Transportation (DOT):** The Nez Perce Forest works with the DOT on certain aspects of managing State Highway 14.
- **Federal Highway Administration (FHWA):** The Nez Perce Forest works with the FHWA in matters related to the Forest highway program and ERFO (Emergency Repair – Federally Owned) Program. Current the Forest is involved in a proposed reconstruction with FHWA on 10.2 miles of the Salmon Road. NEPA is planned for completion in FY 2001 with construction to being in FY 2003.
- **University of Idaho:** Each year the Forest and U of I cooperates on weed management projects involving remote sensing of weeds, vegetation and biocontrol-agent monitoring, revegetation of weed-infested sites and other research opportunities such as McComas Meadows.

## **D. OTHER MONITORING**

This section addresses monitoring information that is not identified as a requirement in the Nez Perce National Forest Plan (Table V-1). The Forest feels this information is important to monitor as part of Forest Plan implementation.

### **Nez Perce National Forest Accessibility for People with Disabilities**

#### **Discussion:**

The Architectural Barriers Act (ABA) of 1968 requires that all public buildings, facilities, and programs funded in whole or part with federal funds be accessible to and usable by physically disabled person. Section 504 of the Rehabilitation Act of 1973, as amended in 1978, states, "No otherwise qualified handicapped individual in the United States, shall solely by reason of his handicap, be excluded from the participating in, be denied the benefits of, or be subject to discrimination under any program or activity conducted by federal financial assistance or by any Executive Agency." The Americans with Disabilities Act (ADA) of 1990 provides standards - even when no federal funds are involved - for addressing discrimination against individuals with disabilities in employment, transportation, telecommunications, and services operated by private entities.

In 1991, the Nez Perce Forest Human Resources Team identified the need to evaluate accessibility of Forest facilities to people with disabilities. In June 1991, a survey was initiated using the newly developed Forest Service accessibility survey tool to determine the accessibility of Forest campgrounds/picnic areas. In addition, the need was identified to evaluate Forest Service facilities. A special emphasis program was created in 1992 to deal with issues concerning people with disabilities. During the initial monitoring stages of facilities we realized the need for TDD (Telecommunication Devices for the Deaf) to allow better communication with our publics. TTDs have been installed in five district offices and the Forest Headquarters. To access these phone lines, use the following phone numbers:

Forest Headquarters	(208) 983-2280
Salmon River Ranger District	(208) 839-2328
Clearwater Ranger District	(208) 983-0696
Moose Creek Ranger District	(208) 926-7725
Red River Ranger District	(208) 842-2233

**General Description of the Different Levels of Accessibility**  
**(A Design Guide/Universal Access to Outdoor Recreation)**

<b>Accessible/Easy</b>	<b>Moderate</b>	<b>Difficult</b>
The general level of expected access to elements and spaces integrated into developed recreation sites or portions of sites. These are typically in: urban/rural settings; at sites managed to provide urban/rural recreation experiences; or at sites managed to provide an easy level of accessibility as defined by these guidelines.	The general level of expected access to elements and spaces integrated into moderately developed recreation sites or portions of sites. These are typically in: roaded natural settings; at sites managed to provide roaded natural recreation experiences; or at sites management to provide moderate level of accessibility as defined by these guidelines.	The general level of expected access to elements and spaces integrated into lesser developed recreation sites or potions of sites. These are typically in: semi-primitive settings; at sites managed to provide semi-primitive settings; at sites managed to provide semi-primitive recreation experiences; or at sites managed to provide difficult level of accessibility as defined by these guidelines.

**Monitoring Results:**

**Mobility Accessibility by Accessibility Levels**

<b>Facility</b>	<b>Easy/Accessible</b>	<b>Moderate</b>	<b>Difficult</b>
Fish Creek Pavilion 1994 100 People	Will accommodate 75 people	Will accommodate an additional 25 people	0
Fish Creek Campground Sites: 11 total	9 campsites	2 campsites	0
Blackerby Picnic Area Sites: 2 total	0	2 picnic sites	0
Castle Creek Campground Sites: 9 total	0	8 campsites	0
South Fork Campground Sites: 9 total	6 campsites	2 campsites	1 campsite
Slims Camp Campground	0	0	Accessible at this level*
Selway Falls Campground	0	0	Accessible at this level*
Selway Fish Pond	Accessible at this level		
O'Hara Bar Campground Sites: 35	0	5 campsites	10 campsites
Spring Bar Campground Sites: 17	0	6 campsites	3 campsites
Allison Creek Picnic Area Sites: 2 total	0	0	1 picnic site
Wildhorse Campground	0	0	Accessible at this level*
Florence Cemetery			Accessible at this level*
McAllister Picnic Area			Accessible at this level*
Johns Creek Trailhead			Accessible at this level*
Cougar Creek Trailhead			Accessible at this level*
Trapper Creek Trailhead			Accessible at this level*

Facility	Easy/Accessible	Moderate	Difficult
14 Mile Tree Trailhead			Accessible at this level*
Rocky Bluff Campground			Accessible at this level*
Meadow Cr. Campground			Accessible at this level*
Nelson Creek Campground			Accessible at this level*
Red River Campground			Accessible at this level*
Wild Horse Campground			Accessible at this level*
Johnson Bar Campground			Accessible at this level*
CCC Campground			Accessible at this level*
Sing Lee Campground			Accessible at this level*
Iron Phone Junction			Accessible at this level*
Leggett Creek			Accessible at this level*
5-Mile Pond			Accessible at this level*
Slate Creek Ranger District Office	Accessible at this level		
Clearwater Ranger District Office	Accessible at this level		
Nez Perce National Forest Headquarters Office	Accessible at this level		
Red River Ranger District Office	Accessible at this level		
Moose Creek Ranger District Office	Not Accessible at this level	Not Accessible at this level	Not Accessible at this level
Elk City Ranger District Office	Accessible at this level		

\*Depending on weather

### Evaluation of Monitoring Results:

Accessibility surveys have been completed at the Supervisor's Office, Clearwater District Office, and Fenn Ranger Station. Physical site transition plans are nearly completed at the Supervisor's Office and Clearwater District Office. By the end of 2001, it is intended that all surveys and most transition plans for our administrative sites will be complete.

The Forest Headquarters and all district offices (except the Moose Creek Ranger District building at Fenn Ranger Station) are accessible to everyone. Moose Creek and Selway Ranger Districts have combined at the historic Fenn Ranger Station and are in the planning stages for providing accessible services there. A preliminary design was completed in 1996 for a new building at the site that would provide accessible offices and visitor services. That project is the number one priority for Capital Improvement funding on the Forest, scheduled for fiscal year 2002.

A triplex apartment building, our first fully accessible residences for employees, was completed at the Elk City Ranger Station in 1996. An accessible family housing duplex is also planned at the Elk City Ranger Station. It is the Forest's number three priority for Capital Improvement funding, and is scheduled for fiscal year 2003. Plans are on file for renovating a family residence at the Fenn Ranger Station for



accessibility and work has begun on conceptual plans for renovating a bunkhouse and a family residence for accessibility at each ranger station. This work is prioritized on the Forest's NFFA work planning/funding list. Renovation will be undertaken when a need arises or as other funding becomes available; whichever comes first.

## Environmental Analysis Accomplishments Related to Timber

### Monitoring Results:

The following table and discussion summarize Forest Supervisor authority environmental analysis accomplishments between FY 88 and FY 00. Beginning in FY 93, District Ranger authority environmental analysis accomplishments are also included.

Fiscal Year	Number of Decisions	Included Number of Sales	Total Acres Analyzed	Proposed Harvest Acres	Average Harvest Volume (MMBF) per Timber sale	Proposed Harvest Volume (MMBF) <sup>1</sup>
88	3	3	24,400	1,662	9.0	27.0
89	8	15	164,480	5,908	6.8	102.1
90	2	7	38,296	4,677	6.0	42.1
91	3	11	81,964	6,164	8.0	88.5
92	1	1	4,034	351	10.4	10.4
93	4	5	25,716	2,461	4.1	20.5
94	4	35	11,230	319	0.04	1.3
95	9	11	6,730	386	0.4	4.1
96	8	13	11,480	1,160	0.9	12.1
97	4	6	45,775	4,509	3.26	22.3
98	3	3	15,075	4,675	4.44	13.3
99	2	2	4,553	362	1.3	2.6
00	1	1	18,000	340	1.6	1.6
13 year average	4.0	8.6	34739	2,536	3.1	26.7
Total	52	113	451611	32,974	--	347.4

### Evaluation of Monitoring Results:

Many National Environmental Policy Act (NEPA) documents require more than one year to complete. This results in high variability from year to year with respect to the number of decisions and acres analyzed. During the year, analysis was ongoing for three other timber related NEPA documents.

<sup>1</sup> Proposed harvest volume figures in this table are different than those exhibited on Table 1 because of rounding off of numbers.

## Noxious Weed Management

Noxious weeds and invasive exotic plants are a rising concern on federal land across the western states. Many invasive exotics can invade healthy ecosystems, displace native vegetation, effect species diversity and wildlife habitat. Wide spread infestations may lead to soil erosion, reduce quality of recreation for visitors and threaten the long term viability of rare plants. Invasive exotics have been identified as a major threat to our native biodiversity.

The Nez Perce National Forest continues to implement a proactive management program for noxious weeds. The program is an integrated approach to managing the weeds on the Forest and includes: education/awareness, inventory, prevention/early detection, treatment and monitoring. The program is integrated with Idaho County Weed Control and is based on a strong prioritization process.

Management priorities for the Nez Perce are: 1) to prevent the establishment of potential invaders; 2) the eradication of new invading noxious weeds; 3) the control of satellite infestations including the treatment of transportation corridors and areas of concentrated human activities; and 4) the containment of large established infestations.

The noxious weeds of great concern on the Forest continue to be dyer's woad, rush skeletonweed, yellow starthistle, diffuse knapweed, Russian knapweed, toothed spurge, leafy spurge, sulfur cinquefoil, spotted knapweed, Scotch thistle, orange and yellow hawkweed, and common crupina.

The Forest Service across Idaho restricted the use of hay and feed to only those products that were certified weed seed free or weed free, as part of a statewide prevention program. The Forest continued to work with Idaho County to ensure that a local supply of certified products was available. Machinery and equipment are washed as part of timber sales and equipment contracts to prevent the spread of weed seed.

During the FY 2000 season, district and forest personnel have worked with many user groups and interested parties in the identification and risks of invasive exotic plants. District personnel lead field trips to review infestation and risk levels in sensitive areas such as wilderness and wild and scenic rivers. Displays were set up at the Idaho County Fair educate forest users of the risks of weed invasions. A total of 18 road signs have been established on main portals to alert users of the need for certified hay. Many user groups were contacted to discuss the risk of weed invasion to their interest areas. The Nez Perce National Forest and Idaho County organized and conducted a noxious weed management field day.

Each district has a noxious weed coordinator who directs inventory, control, and monitoring activities. Noxious weeds were addressed in analyses for ground disturbing or habitat altering activities. Weed susceptibility was modeled in watershed and Subbasin assessments.

The Forest used a variety of tools to treat approximately 1,150 acres, during the fy2000 field seasons. Weeds were treated by the release of biological control agents (3650 insects over 18 sites), manual pulling of isolated infestations, mowing, seeding of disturbed sites, and herbicides. Volunteer groups were active in manual control of spotted knapweed along the beaches of the Wild and Scenic sections of the Salmon River. Bio-control insects were released as treatment for yellow starthistle, and spotted knapweed. The treatments are consistent with the estimated level outlined in the Forest Plan.

The Forest is involved in the implementation of the Salmon River Weed Management Area. The management area encompasses 500,000 acres in the lower Salmon River Canyon where a collaborative plan has been developed between Idaho County, private landowners, and federal and state land management agencies. The intent of the weed management area is to bring together those responsible for weed management within the Salmon River drainage, to develop common management objectives, facilitate effective treatment and coordinate efforts along logical geographic boundaries with similar land types, use patterns and problem species. The result of this effort is the integration of the Forest weed program with the county and state efforts.

A similar effort is ongoing in the Clearwater River Basin. The Forest is part of a coordinating committee of county, federal, state, and private representatives. The committee was established to coordinate weed management activities across the entire Clearwater basin. The committee finalized the strategic weed management plan for the Clearwater basin. The plan will require the cooperators to realign their individual weed management priorities to accomplish basin priorities and to ensure that the work is coordinated across the watershed. The Forest program in the Clearwater drainage will become increasingly integrated with the county, state, and other federal agency efforts.

The Forest was involved in implementing weed treatments in the Frank Church River of No Return Wilderness. An environmental impact statement and weed treatment decision were completed in the summer of 1999, with treatment beginning in FY 2000.

To assist in the early detection and the long term monitoring of yellow starthistle, spotted knapweed, leafy and toothed spurges and rush skeletonweed the Forest received a grant from the Regional Partnership Program to use hyperspectral images to detect small infestations of weeds with low canopy cover along the Salmon River Canyon. The project includes the University of Idaho, Idaho County, Idaho Department of Agriculture and Bureau of Land Management. New remote sensing technology offers the opportunity to greatly improve on the limited success of past remote sensing projects in the detection of weeds. Hyperspectral imaging uses detailed weed reflectance to identify species based on specific spectral signature files. Low-level flights with a fixed-wing aircraft gathered digital reflectance data with a "Probe" sensor along a five-mile wide flight line from the mouth of the Salmon River to the confluence of the South Fork of the Salmon River covering approximately 400,000 acres along 125 river miles. The University of Idaho is completing image classification and accuracy assessment. The University would provide digital image

files, mosaic maps, classification and final report of the entire project area to the partners. Classification of the images is in progress and the project will be completed in the fall of 2001.

The Forest, working with the University of Idaho, Forest Health Protection Group, and the Nez Perce Tribe Bio-control Center, is monitoring biocontrol agents for yellow starthistle in the Salmon and Clearwater basins. This work includes the distribution, release and monitoring of five different insects that have been approved for release. It also incorporates vegetation monitoring as part of the management of the release sites.

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## RESEARCH NEEDS

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The following research needs have been identified during implementation of the Forest Plan. They will be recommended to the Regional Forester for inclusion in the Regional research program proposal

1. The Elk Guidelines Habitat Suitability Index (HSI) model represents a composite of factors and variables affecting elk behavior from all over the west. There is a need for cooperative research to help refine the Northern Idaho Elk Guidelines H.S.I. Model so variables characteristic of Northern Idaho will be more properly represented and the model better tailored to local conditions.

Status: An interagency team of elk habitat technical specialist comprised of biologists from Idaho Department of Fish and Game, Nez Perce and Clearwater National Forests, and the Nez Perce Tribe, organized through the "Venture 20" effort, have completed a technical review and proposed edits/improvements to the existing Guidelines for Evaluating and Managing Summer elk habitat in Northern Idaho (Leege 1984). A draft of this updated proposal titled, "Interagency Guidelines for Evaluating and Managing Elk Habitats and Populations in Central Idaho" (Servheen, 1997; Wildlife Bulletin No. 11) was prepared. The 1997 draft proposal resulted in adjustments to the 1984 model, including: removal of the security area variable, incorporation of trails into access calculations, addition of elk vulnerability model, and other less significant changes. An on-forest interdisciplinary review of these draft 1997 updates to the 1984 model resulted in the preliminary conclusion that a significant Forest Plan amendment may be required prior to forest-wide application. Rationale behind this preliminary conclusion included the following:

- a. Replacing the Nez Perce Forest Plan's Appendix B implies a change to Forest Plan direction.
- b. Cumulative effects of implementing the 1997 version have not been evaluated or publicly displayed.
- c. Elk and elk habitat management are significant public issues on the Forest.
- d. Public input from recreation, hunting, and motorized user publics relative to the 1997 changes have not been solicited or reviewed.
- e. The 1984 elk model in Appendix B of the Forest Plan did not address application of an elk vulnerability model. Site-specific incorporation and adoption of the 1997 adjustments to the 1984 elk model will be encouraged for application on a site-by-site basis following appropriate NEPA, but Forest-wide application of the 1997 version will require incorporation into the Forest Plan Revision Process. 1999 Update: The Forest Plan Revision process has not formally been initiated with a Notice of Intent to do the EIS as of this date.

2. Moose winter range questions need to be addressed:

- What silvicultural system best maintains the yew component in the grand fir/pacific yew association?
- How can fuels be managed and still retain Pacific yew?
- What is the optimum spatial arrangement of yew throughout the Forest?
- What is the optimum stand size for yew?
- How many acres of the grand fir/Pacific yew association exist on the Forest?
- Does the Forest Plan adequately address the definition and protection of key moose winter habitat that has no Pacific yew component?
- 1999 Update: With dramatic changes in both the extent and methodologies of timber harvesting used on national forests throughout the U.S. in recent years, most of the questions and concerns pertaining to maintenance of moose/yew habitats have disappeared. Due to these dramatic changes, the driving need to answer these questions has fallen in priority and no research is currently pending to address these issues at this time.

3. The consequences of repeated burning, and of maintenance of Forest ecosystems in prolonged seral brush stages, need to be evaluated. 1999 Update: Dramatic shifts in forest management philosophy and recognition of soil maintenance needs as well as the practices of managing to emulate "natural disturbance regimes" and "historical ranges of variability" have begun to replace outdated approaches aimed at maintaining seral brush stages on a given site indefinitely. For this reason, the practice of repeated intensive burning for such purposes is used less and as a result, levels of concern over this practice are declining. No research is pending at this time.

4. Determine the relative effectiveness of fertilization compared to burning for improving wildlife habitat. 1999 Update: Fertilization costs versus those of prescription burning are comparatively high. Dramatic reductions in appropriated funds and other revenue sources in recent years have placed greater emphasis on cost-effectiveness of land treatments. For this reason, the practicality of using fertilization as an economical approach to habitat improvement has virtually been eliminated. No research is planned or pending at this time.

5. Determine and define corridor attributes needed to link old growth stands. 1999 Update: Dramatic changes in forest management philosophy and practices in recent years have virtually eliminated the application of broad-scale clear-cut and burn treatments which tend to isolate forest stands and fragment overall landscape conditions. Current philosophy emphasizes consideration for maintaining and increasing late-seral forest conditions and arrangement of habitats including connectivity and habitat continuity, such that the need to link

old growth stands is fast becoming a declining issue in forest issues of the future. For this reason, no research is planned or pending at the local scale at this time.

6. Natural stand dynamics and disturbance regimes for riparian habitat types are poorly described. Silviculturists need to be able to predict effects of timber management on stand regeneration, competition, future stand composition, and insect and disease patterns, as well as factors affecting riparian and stream function including shading, bank stability, and large woody debris inputs. Methods need to be developed to monitor the effects of timber harvest and other activities on riparian areas. 2001 update: These research needs are being addressed to some degree with local investigations of patterns of fire and modeled watershed response in the Selway River Subbasin. Work on the Bitterroot Ecosystem Management Project is being done that may also address these issues, but research findings may need local calibration.

7. Habitat relationships and limiting factors for most sensitive and federally listed species (plant and animal) are poorly understood. Research is needed to better define critical habitat components for these species and risk posed by Forest management activities.

Accomplishment Status: Minimal research on habitat relationships of sensitive and federally listed plants has occurred over the last few years. Progress is slow because the research must be conducted across multiple forests and agencies. Idaho Conservation Data Center has begun modeling potential habitat for a few rare plants in Idaho. There is opportunity in the near future for National Forests to fund work on habitat relationships of rare plants.

8. Watershed and reach response to natural fire disturbance and rates of recovery are not well described in watershed models currently in use. Research is needed to describe debris torrent and water yield effects on channel attributes, and watershed recovery rates in terms of temperature, sediment and substrate condition, and channel morphology. 2000 update: these remain critical unmet research needs. Forest level studies have been in place since the 1988 fires and provide some information. Rocky Mountain Research Station has proposed studies for FY 2002-2003 to address this need.

9. There is a lack of published data concerning the effects of operating a suction dredge in streams occupied by threatened, endangered, and sensitive aquatic species. The Forest is in the process of completing analysis of four non-recreational suction dredge proposals, which will result in an increased understanding of the effects of these activities on aquatic species. Additionally, these analyses will assist in the identification of the specific research and monitoring needs that will contribute to increased understanding of this relationship.

10. An accurate way of quantifying the short-term and long-term effects of road decommissioning on sediment production needs to be developed. 2001 update: Research coordinated by the Rocky Mountain Research Station has been proposed

in Horse Creek to evaluate the effects of road decommissioning on sediment production, channel morphology, water yield and stream macro invertebrate populations. NEPA analysis is scheduled for 2001 and decommissioning for 2002 or 2003, with sampling through 2005 or 2006. Other road decommissioning projects are being monitored at the forest level for changes in stream cross-sections and substrate above and below restored stream crossings.

### **Accomplishment of Research Needs**

Riparian Disturbance Regimes: In 1995-1997 detailed fire history mapping and field sampling occurred in the wilderness portion of the Selway River basin. These data are being analyzed to characterize natural fire disturbance patterns in riparian areas at watershed and reach scales. 2001 update: This research has described watershed scale patterns of fire disturbance and sediment and water yield response, but no long-term field sampling has been done. Analysis scheduled for 2001 will investigate reach level patterns of fire disturbance in reaches stratified by fish habitat potential and reach response units.



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## PLAN AMENDMENTS

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Amending the Nez Perce National Forest Plan is a normal process of improving our ability to care for the land. The need to amend the Plan was anticipated at the outset. Twenty-five amendments and one revised amendment have been issued.

Following are summaries of those amendments made to date. No amendments were made to the Forest Plan in FY00. A copy of any amendment(s) can be obtained by contacting the Nez Perce National Forest's Supervisor's Office.

### **Amendment #1:**

Clarifies our intent to protect potential Wild and Scenic Rivers upon their inclusion into the National Wild and Scenic Rivers system, by providing more detailed forest-wide standards.

Proposed changes in the management standards were developed following guidance contained in the Wild and Scenic River Evaluation section of the Forest Service Land and Resource Management Planning Handbook (FSH 1909.12, Chapter 8). [10/88]

### **Amendment #1 (REVISED):**

Revised Forest Plan Amendment #1 is exactly the same as the original amendment except that the following statement has been removed. The amendment was necessary to settle and appeal of Amendment #1. [1/91]

"Boundaries may include adjacent areas needed to protect the resources or facilitate management of the river corridor."

### **Amendment #2:**

Clarifies the Forest's definition and management of motorized recreation on the Nez Perce National Forest. [10/88]

### **Amendment #3:**

Modifies standards listed in Chapter II (Forest-wide Management Direction) and Chapter III (Management Area Direction). Clarification is provided in changes to the minerals section of Chapter VI (Summary of the Analysis of the Management Situation) and the glossary and monitoring items.

The specific standards modified are those relating to minerals, wildlife, fish, and riparian area management; and to provide clarification that will not alter the multiple use goals and objectives as identified in the Forest Plan.

The need for changes and clarification in management standards was the result of negotiations with the Independent Miners Association's appeal of the Nez Perce National Forest Plan. An interdisciplinary team developed the settlement agreement

that addressed then appellant's concerns and a proposal for correcting the Plan. [3/89]

#### **Amendment #4:**

Modifies standards listed in Chapter II (Forest-wide Management Direction), modifies the visual resource standards in Chapter III (Management Area Direction), and modifies specific monitoring requirements in Forest Plan Appendix O dealing with visual resource management.

The need for changes and clarification in management standards was the result of environmental analysis of proposed timber sales and road construction in the Wing Creek-Twentymile area. During the comment period of the Wing Creek-Twentymile Draft Environmental Impact Statement, concern was expressed on conflicting Forest Plan language pertaining to visual resource management. An interdisciplinary team was used to analyze the concerns and develop a proposal for correcting the Forest Plan. [3/89]

#### **Amendment #5:**

Corrects errors displayed in the Nez Perce National Forest Plan Appendix A, Forest Fishery/Water Quality Direction by Prescription Watershed. These objectives provide management direction in terms of the maximum estimated increase in sediment over baseline conditions that can be approached or equaled for a specific number of years per decade.

Some of the changes are planning errors made in identifying sediment yield and entry frequency guidelines. Site-specific analysis and stream surveys have also revealed that some streams were incorrectly identified as not supporting anadromous fish. The errors were identified through environmental analysis of proposed timber sales and road construction. An interdisciplinary team was used in identifying the needed changes and proposing the corrections. [3/89]

#### **Amendment #6:**

Corrects errors in Forest Plan Chapter II (Forest-wide Management Direction), Chapter III (Management Area Direction), Chapter V (Implementation), Chapter VII (Glossary), and Appendix A (Fishery/Water Quality Direction).

The corrections made in this Forest Plan amendment provide clarification that will not alter the multiple use goals and objectives as identified in the Forest Plan.

An error was identified through environmental analysis of a proposed timber sale and associated road construction and habitat improvement project. Forest Plan Appendix A describes current fishery habitat quality in the West Fork of Red River (Prescription Watershed 17060305-04-18) as 50 percent of potential habitat quality. The West Fork of Red River is in a pristine natural condition. This watershed is roadless and no management activities are known to have occurred in either the watershed or the

stream. The stream is, therefore, in a pristine, natural condition and it is appropriate to display it at 100 percent of potential habitat quality.

The Forest Interdisciplinary Monitoring Team identified additional typographical errors in the Forest Plan. This Forest Plan amendment includes the correction of those errors. [7/89]

### **Amendment #7:**

Clarifies language founding the following sections:

- Chapter II (Forest-wide Management Direction)
- Chapter V (Implementation)
- Chapter VI (Summary of the Analysis of the Management Situation)
- Appendix O (Forest Plan Monitoring)

The specific items modified provide clarification that will not alter the multiple use goals and objectives as identified in the Forest Plan.

The need for changes and clarification in management standards was the result of negotiations with the Nez Perce Indian Tribe on their appeal of the Nez Perce National Forest Plan. An interdisciplinary team was used in developing the settlement agreement that addressed the appellant's concerns and developed a proposal for correcting the Forest Plan. [1/90]

### **Amendment #8:**

The purpose of the Forest Plan Amendment #8 is to clarify language in Appendix O (Forest Plan Monitoring Requirements).

During this past year the Forest Interdisciplinary Monitoring and Evaluation Team identified some items in the Forest Plan Monitoring Requirements Appendix that need correction or clarification.

These items focus on fish and wildlife monitoring. Specifically, the changes relate to forage production, wildlife population trends, and fisheries/watershed monitoring station costs.

The corrections made in this Forest Plan amendment provide clarification that will not alter the multiple use goals and objectives as identified in the Forest Plan. [1/89]

### **Amendments #9 and #10:**

These amendments deal with management practices specific to the Cove and Mallard Timber sales as described in the Final Environmental Impact Statements for those sales. Amendment No. 9 was formally adopted in the Mallard Record of Decision, and Amendment No. 10 was formally adopted in the Cove Record of Decision. Both of these amendments correct oversights in the Forest Plan.

These two amendments apply only to the timber sales analyzed in the Cove and Mallard Environmental Impact Statements. They do not apply to other timber sales on the Forest.

The two amendments will allow clear-cutting and sanitation/salvage harvesting within Management Areas 12 and 17. (11/90)

### **Amendment #11:**

Forest Plan Amendment No. 11 makes adjustments in the Forest-wide monitoring program and updates the fish/water quality objectives in Appendix A to the Plan. The Forest Interdisciplinary Monitoring Team in the Nez Perce National Forest Monitoring and Evaluation Report recommended the changes in the monitoring program for Fiscal Year 1989; the objective was to make the program more comprehensive. The revised fish/water quality objectives are based on recent stream surveys. Specific changes in both the monitoring program and the fish/water quality objectives are listed in the Decision Memo for Amendment No 11. (1/91)

### **Amendment #12:**

Amendment 12 makes minor changes to the Wall Creek Municipal Watershed direction (Management Area 22) contained in the Nez Perce Forest Plan. These changes relate to improving the range of management practices identified in the Forest Plan, and specifically to items such as notifying the water district if a fire occurs in the watershed and taking special precautions with machinery and chemicals. (2/91)

### **Amendment #13:**

Amendment 13 brings the Plan into compliance with legal requirements and Forest Service directives dealing with animal damage control. It should be noted that the amendment does not authorize any specific projects. (4/91)

### **Amendment #14:**

This (3/91) amendment would partition the allowable sale quantity (ASQ) by separately showing the ASQ that came from inventoried Roadless areas and roaded areas. Thirteen Forest Plans in the Northern Region were amended. The decision was appealed to the Chief of the Forest Service who affirmed the decision. The Secretary of Agriculture opted to review the Chief's appeal decision and reversed the decision in October 1991, thereby vacating and voiding Amendment 14 of the Nez Perce Forest Plan.

### **Amendment #15:**

Amendment 15 amends the Frank Church-River of No Return Wilderness Management Plan and the Forest and Land Management Plans for the Bitterroot, Boise, Challis, Payette, Nez Perce, and Salmon National Forests.

The amendment changes wording in the Wilderness Management Plan related to reducing the storage of items and removal of plumbing fixtures from the wilderness. The amendment only modifies the schedule of implementation. (6/91)

### **Amendment #16:**

Amendment 16 adopts programmatic changes in management direction for the Selway-Bitterroot Wilderness. These changes should enable wilderness managers to better meet both the letter and the intent of the Wilderness Act. (2/92)

### **Amendment #17:**

Amendment 17 allows salvage timber harvest within Management Area 20 (old growth wildlife habitat) following the Scott Fire. Analysis showed that salvage harvest would help to speed up the achievement of old-growth vegetative characteristics in the burned area. This amendment is specific to the Scott Fire salvage sale and will not apply to other areas on the Forest. (4/93)

### **Amendment #18:**

Amendment 18 brings the Forest Plan into compliance with a court order that addresses outfitter and guide operations in the Frank Church-River of No Return Wilderness. (7/94)

### **Amendment #19:**

Amendment 19 adds more specific management direction for vegetation in the Selway-Bitterroot Wilderness General Management Direction. It establishes goals, objectives, standards and guides, and monitoring elements for vegetation within ecosystem management principles. It addresses such issues as: noxious weeds, rare plant protection, vegetative diversity, and management of pack and saddle stock. (2/95) [Note: Based on negotiations with appellants, the decision was rescinded in May 1995. A new amendment/decision, which provides additional clarification, is expected in FY 95.]

### **Amendment #20:**

The Nez Perce Forest Plan was amended by the Chief of the Forest Service to incorporate an interim strategy for managing anadromous fish producing watersheds (PACFISH). (2/95)

### **Amendment #21:**

This was a project specific amendment based on the analysis contained in the Hungry-Mill Final Environmental Impact Statement. The amendment changed the summer elk habitat potential objective from 50 percent to 25 percent on 2,838 acres within the Hungry-Mill analysis area. (3/97)

### **Amendment #22:**

This was a project specific amendment based on the analysis contained in the Berg Timber Sale Environmental Analysis. The amendment allows timber harvest within Management Area 20 (old-growth wildlife habitat) in order to improve and maintain the long-term sustainability of the ponderosa pine communities in designated areas of the Berg Timber Sale. The amendment is only valid for the contract life of the timber sale and does not apply to future actions in this area or elsewhere on the Forest. (1/97)

### **Amendment #23:**

This amendment corrects summer elk analysis units and objectives that were mismatched in the original Forest Plan. (7/97)

### **Amendment #24:**

This was a project specific amendment based on the analysis contained in the Hungry-Mill Final Environmental Impact Statement. The amendment updated Forest Plan Appendix A information for several watersheds in the Hungry-Mill analysis area to account for new information on the species of fish that exist in these watersheds. (8/97) **The amendment was challenged in court and subsequently withdrawn in (5/98)**

### **Amendment #25:**

This was a project specific amendment based on the analysis contained in the Middle Fork Final Environmental Impact statement. The amendment updated forest Plan Appendix A information for three watersheds in the Middle Fork analysis area to account for new information on the species of fish that exist in these watersheds. (10/97)

### **Amendment #26:**

This was project specific amendment based on the analysis contained in the Middle Fork Final Environmental Impact Statement. The amendment allows timber harvest within Management Area 20 (old-growth wildlife habitat) in order to improve and maintain the long-term sustainability of the ponderosa pine communities in unit F Middle Fork Timber Sale. The amendment is only valid for the contract life of the timber sale and does not apply to future actions in this area or elsewhere on the Forest. (10/97)

## LIST OF PREPARERS

The following individuals contributed to the development of the Monitoring and Evaluation Report for the Nez Perce National Forest for fiscal year 1999. Members of the Forest Interdisciplinary Monitoring Team are **highlighted in bold type**.

Name	Area of Expertise
<b>Nick Gerhardt</b>	Hydrology and Watershed
<b>Mike McGee/</b>	Timber
<b>Leonard Lake</b>	Range, Botany, and Noxious Weeds
<b>Mike McGee</b>	Minerals
<b>Kris Hazelbaker</b>	Silviculture, Insects, and Disease
<b>Dave Green</b>	Economics
Dave Johnson	Budget and Finance
<b>Randy Borniger, Laurie Doman</b>	Recreation, Wilderness, Trails
<b>Bruce Anderson</b>	Rivers
Cindy Schacher	Heritage Resources
<b>Steve Harbert</b>	Fire and Air
<b>Pat Green</b>	Ecology and Soils
Marci Gerhardt	Soils and Riparian
<b>Dick Artley</b>	Land Management Planning
<b>Steve Blair</b>	Wildlife
<b>Scott Russell</b>	Fisheries
<b>Joe Bonn</b>	Facilities
Kathie Snodgrass	Disabled Persons Access
Daryl Mullinix and Jennifer Stephenson	Lands and Special Uses
Monica McGee	Technical Support
Laura Smith	Public Affairs

The following monitoring program coordinators coordinated district review of the draft report. The district review involved appropriate staff and resource specialists.

Bill Shields	Salmon River Ranger District
David Harper	Clearwater Ranger District
Heather Berg	Moose Creek Ranger District
Gene DeLimata	Elk City Ranger District

In addition, the following individuals reviewed the report:

Bruce Bernhardt	Forest Supervisor
Ihor Mereszczak	Ecosystem Planning & Operations Staff Officer
Michael Cook	Lands, Admin, Trails, Engineering, & Recreation Staff Officer
Byron Bonney	Fire Staff Officer
Phil Jain	Heritage, Watershed, Ecology, and Biology Staff Officer
Laura Smith	Public Affairs Officer
Randy Doman	Deputy Fire Staff Officer
Jack Carlson	District Ranger, Salmon River Ranger District
Darcy Pederson	District Ranger, Clearwater Ranger District
Joe Hudson	District Ranger, Moose Creek Ranger District
Kevin Martin	District Ranger, Red River Ranger District

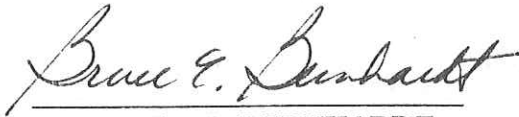
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## APPROVAL

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I have reviewed the annual Forest Plan Monitoring and Evaluation Report for fiscal year 2000 for the Nez Perce National Forest that was prepared by the Forest Interdisciplinary Team. I am satisfied that the Monitoring and Evaluation effort meets the intent of both the Forest Plan (Chapter V) and 36 CFR 219. I have also considered the recommendations of the Interdisciplinary and Leadership Teams on proposed changes to the Forest Plan and will process the necessary Amendments after appropriate notification.

This report is approved:



**BRUCE E. BERNHARDT**  
Forest Supervisor



**DATE**



## APPENDIX

### Status of Action Items Identified in Prior Years

The action items shown below were identified between Fiscal Years 1988-1998. The current status of action to resolve these concerns is summarized below. Action items with an "incomplete" or "ongoing" status will be included in next year's report, together with an update of the resolution status. Actions items that are "complete" or "resolved" will not be repeated in future reports.

<b>ACTION ITEM RELATED TO TIMBER</b>	
<b>Item #1</b>	Continue to maintain expertise for the remeasurement of permanent growth plots. The data from such plots will be used to help develop yield tables in the revised Forest Plan.
Fiscal Year when Action Item identified:	Fiscal Year '95
Current Status:	Ongoing
Discussion:	Progress is occurring as funding and personnel permit. This task remains a high priority on the Forest. The Regional Office is currently evaluating permanent plots region-wide to determine which should have continued measurement and which should not. This should reduce costs and duplication.

<b>ACTION ITEMS RELATED TO WILDLIFE</b>	
<b>Item #1</b>	The Forest needs to determine how fire or silvicultural prescriptions might be used to protect/restore low elevation pine or pine/Douglas fir designated old growth from stand replacing fire.
Fiscal Year when Action Item identified:	Fiscal Year '93
Current Status:	Ongoing
Discussion:	Fuels reduction using prescribed fire sometimes preceded by mechanical thinning is now accepted management practice. More proposals are being developed, where needed, to put this into practice. Monitoring of biotic condition suitability and species responses in treated stands remains to be done in the longer term to validate associated habitat assumptions.

### ACTION ITEMS RELATED TO WILDLIFE

<b>Item #2</b>	Concise snag identification and marking directions to timber marking crews must be included in marking guidelines. Consistent timber sale contract clauses (which do not contradict each other) are needed to help retain snags and trees for replacement snags.
Fiscal Year when Action Item identified:	Fiscal Year '93
Current Status:	Ongoing
Discussion:	Resolution of this issue will require greater attention and involvement by biologists and timber markers in the future. Site-specific decision-making involving reduction of safety hazards will often have to weigh competing values.

### ACTION ITEMS RELATED TO RECREATION

<b>Item #1</b>	Develop criteria for evaluating impacts of off-highway vehicle (OHV) use. Determine what is unacceptable change on a transportation system or land base as a result of these uses and user types.
Fiscal Year when Action Item identified:	Fiscal Years '89-91, '94, and '95
Current Status:	Not completed
Discussion:	<p>Continued lack of funding and the low priority assigned to this task compared with other recreation related work has resulted in very little work in this area.</p> <p>The development of a systematic method to monitor off-road motor vehicle (ORV) use and impacts has not been a top priority on the Forest. As a result, specific instances of detrimental effects of ORV use continue to be handled on a case-by-case basis. Recreation, particularly motorized recreation, continues to be used as a principle mitigator for timber harvest. This is having significant effects on the long-term potential for recreation use and opportunities on the Forest.</p>

**ACTION ITEMS RELATED TO RECREATION**

<b>Item #2</b>	Implement the national system called Infrastructure, which will be used to improve the gathering and documentation of visitor use information.
Fiscal Year when Action Item identified:	Fiscal Year '94 and '95.
Current Status:	Ongoing
Discussion:	The Nez Perce Forest has replaced the Recreation Infrastructure with Meaningful Measures. This is an ongoing database that will show what is needed to maintain the Forest's recreation and trail program.
<b>Item #3</b>	Review and revise recreation opportunity spectrum (ROS) forest-wide, incorporate ROS analysis into all environmental analyses and develop a mechanism for updating ROS acreages in the database.
Fiscal Year when Action Item identified:	Fiscal Year '94 and '95.
Current Status:	Incomplete
Discussion:	The review, revision and acreage updating of the Recreation Opportunity Spectrum (ROS) forest-wide was submitted as a projected proposal for ecosystem management funding. It was the third priority project submitted for recreation and was not funded.
<b>Item #4</b>	Establish a system of measurements for more precise monitoring of sites eligible to the National Register of Historic Places.
Fiscal Year when Action Item identified:	Fiscal Year '94 and '95.
Current Status:	Ongoing
Discussion:	In accordance with the Region One Programmatic Agreement with the Idaho State Historic Preservation Officer, National Register of Historic Places (NRHP) eligible sites are currently being monitored before, during and after the implementation of specific projects. This monitoring documents any site changes which may have occurred due to potential project related impacts, vandalism, or the forces of nature.

**ACTION ITEMS RELATED TO RECREATION**

<b>Item #5</b>	Continue to replace substandard signs in the wilderness.
Fiscal Year when Action Item identified:	Fiscal Year '94.
Current Status:	Ongoing
Discussion:	The Forest is continuing to replace substandard signs in wilderness as funding levels allow.
<b>Item #6</b>	The Middle Fork of the Clearwater River Management Plan needs to be updated and the administration of scenic easements needs more emphasis.
Fiscal Year when Action Item identified:	Fiscal Years '94 and '95.
Current Status:	Incomplete
Discussion:	There continues to be a need to update the Middle Fork of the Clearwater River Management Plan. A shared Scenic Easement Administrator position was established between the Nez Perce and Clearwater National Forests to provide consistent Wild & Scenic River easement administration on the Selway, Moose Creek and Lochsa Ranger Districts.
<b>Item #7</b>	Formally adopt a new "roaded modified" Recreation Opportunity Spectrum (ROS) class for the Forest.
Fiscal Year when Action Item identified:	Fiscal Year '95.
Current Status:	Ongoing
Discussion:	Work continues in this area as funding allows.

<b>ACTION ITEMS RELATED TO FISHERIES</b>	
<b>Item #1</b>	Fish and water quality objectives for the South Fork of Clear Creek should be consistent with objectives for similar Chinook habitat on the Forest. Also, one-half mile of stream in the Clear Creek drainage does not have an assigned water quality objective.
Fiscal Year when Action Item identified:	Fiscal Year '90
Current Status:	Incomplete
Discussion:	This situation will be corrected through the Forest Plan amendment process. Other higher priority work has delayed progress on this amendment. Given recent budget reductions and the pending Forest Plan revision work already underway, it is unlikely that an amendment will be made before the revised Plan is complete.
<b>Item #2</b>	Monitoring of fish habitat condition needs to be adequately funded, staffed and given a higher priority for accomplishment.
Fiscal Year when Action Item identified:	Fiscal Years '93 and '94
Current Status:	Ongoing
Discussion:	In FY 2000, the Forest will complete a workforce analysis in order to prioritize the work and match with existing and projected skills.

<b>ACTION ITEMS RELATED TO SOIL AND WATER</b>	
<b>Item #1</b>	Additional work is needed to improve the quality of placer mining operations in some cases. The lack of specific mandatory "best management practices" is a limitation in achieving this.
Fiscal Year when Action Item identified:	Fiscal Year '94
Current Status:	Ongoing
Discussion:	Work continues as funding and personnel permit.

**ACTION ITEMS RELATED TO SOIL AND WATER**

<b>Item #2</b>	Continued development of the NEZSED model and improvements in the reliability of observed sediment yield estimates are needed to improve future land management decisions.
Fiscal Year when Action Item identified:	Fiscal Year '94
Current Status:	Ongoing
Discussion:	The Forest is involved in efforts at the regional and national levels to assess and update sediment-modeling technology.
<b>Item #3</b>	To maintain soil productivity, water quality and maintain viable populations of native species, increased emphasis needs to be given to accomplishing integrated landscape and site-specific assessments.
Fiscal Years when Action Item identified:	Fiscal Years '93 and '94
Current Status:	Ongoing
Discussion:	In FY '99, the Forest worked on two Ecosystem Analysis at the Watershed Scale: Slate Creek and Newsome Creek. Also, in FY '99, the Forest worked on the second of 3 landscape assessments at the 4 <sup>th</sup> code HUC scale (750,000 – 1,000,000) acres in preparation for Forest Plan revision. This first landscape assessment covered the South Fork Clearwater River drainage. The second such landscape assessment, in the Selway River drainage, is to be completed in FY 2001. In FY 2000 work was begun on the Salmon River landscape assessment.
<b>Item #4</b>	Analyze the effectiveness measures being taken to promote riparian recovery in McComas Meadows in light of the effects to the meadows of the 1995 storm event.
Fiscal Year when Action Item identified:	Fiscal Year '95
Current Status:	Ongoing
Discussion:	Meadow conditions were evaluated in 1996 and 1997. A restoration plan is being refined with implementation ongoing in cooperation with the Nez Perce Tribe.

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## REFERENCES

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The Nez Perce National Forest Headquarters can be contacted in regard to locating copies of the following cited material referred to in this report:

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