United States
Department of
Agriculture

Forest Service

Nez Perce National Forest Plan

Eleventh Annual Monitoring and Evaluation Report

Fiscal Year 1998

Information Requests and Comments

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:

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Note: The Selway and Moose Creek Ranger Districts have been combined administratively under a single ranger. The main office for the new Moose Creek District is located at the Fenn Ranger Station.

Likewise, the Elk City and Red River Districts have been administratively combined and are managed by one ranger. The main office for the new Red River Ranger District is located at the Elk City Ranger Station in Elk City, Idaho.

Forest Plan Monitoring and Evaluation Report

Nez Perce National Forest

Fiscal Year 1998

INTRODUCTION

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, (e.g. 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, (e.g. determining whether a standard for retaining a certain amount of woody 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;
- items where projected effects may or may not occur as predicted;
- 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 1998. 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, 1997, through September 30, 1998. 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:

- Section I. The Introduction.ii
- Section II compares planned outputs and services with the actual accomplishments and discusses budget and expenditure history and future projections. Section II also includes a detailed summary of monitoring findings for each of the required Forest Plan Monitoring Elements, subdivided by resource emphasis...ie. wildlife, timber, recreation etc.
- Section III identifies research needs.
- Section IV summarizes amendments made to the Forest Plan as of September 30, 1998.
- Section V lists those people who contributed to the preparation of this report.
- Section VI is the Forest Supervisor Approval page.
- The Appendix to this report lists references and the status of progress on past action items.

This annual Monitoring and Evaluation report for the Nez Perce National Forest is incomplete. Unfortunately, the Fisheries section of this report has not been updated. Given the value of the fisheries resources on the Forest, this is a serious omission. However, with the recent listing of two additional fish species, steelhead and bulltrout, the workload in fisheries has been uniquely large. In order to accomplish this workload, and provide for continuation of the Forest's programs, something had to give. We apologize for not having complete all the sections of this report, but ask for your understanding of the challenges and complexity we face in natural resource management today.

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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 projected in the Forest Plan (Page II-9, Table II-1) with assigned targets for these schedules of work, and with actual accomplishments for these activities and outputs for fiscal year 1998.

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 show 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 (NFLP)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
11.2	EM121	Forest Plan Mntrng/Evaluation	Reports	NA	0	1
11.3	EM112	Forest Plan Rvsns Underway	Plans	NA	0	0
61.0	EM112	Significant FP Amend. Underway	Amendments	NA	0	0
61.1	EM112	Forest Plan Rev. Completed	Plans	NA	0	0

Inventory and Monitoring (NFIM)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
13.2	EM111	Riverine Vly Sgmt Scale Inv.	Miles	NA	0	0
13.3	EM111	Rvrn Strm R/C Unit Scale Inv.	Miles	NA	0	0
13.4	EM111	Lacustrine Lk Type Scale Inv.	Acres	NA	0	0
13.5	EM111	Lcstrn Lk Zone/Site Scale Inv.	Acres	NA	0	0
13.6	EM111	Ecrgn Sci -D/D/P Assessment	Assessment	NA	0	0
13.7	EM111	Ecsrgn Sctn RvB/s Assesment	Assessment	NA	1	1
13.8	EM111	Lndscp/Wtrshd Sci Assessment	Assessment	NA	0	1
14.2	EM111	Ecrgn Sci-D/D/P Assessnent	Assessment	NA	0	0
14.3	EM111	Ecsrgn Sctn RvB/S Assessment	Assessment	NA	1	1
14.4	EM111	Lndscp/Wtrshd Sci Assessment	Assessment	NA	0	1
60.1	EM111	Forest Res. Inventory	Acres	NA	0	0
60.2	EM111	Rangeland Res. Inventory	Acres	NA	0	0
60.3	EM111	Wildlife Habitat Inventory	Acres	NA	0	14,000
60.4	EM111	TE&S Habitat Inv.	Acres	NA	0	7,000
60.5	EM111	Stream Aquatic Biota Inv.	Miles	NA	0	116
60.6	EM111	Lake Aquatic Biota Inv.	Acres	NA	0	0
60.7	EM111	Ecsrgn (sct/sbsct) Scale	Acres	NA	0	0
60.8	EM111	Landscape Scale Inventory	Acres	NA	0	1,350,000
60.9	EM111	Land Unit Scale inventory	Acres	NA	0	84,981
61.9	EM111	Heritage Inventory	Acres	8,000	0	0
81.2	EM121	AQRV's Inventory&Monitoring	AQRV	NA	0	1

Recreation Management (NFRM)

Mar Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
26.0	AN1	Seasonal Capacity Available	PAOT Days	NA	496,000	1,004,537
62.3	AT1	Recreation Trails on System	Miles	NA	0	1,479
62.5	AS1	Rec Spcl Use Permits Total	Permits	NA	0	61
63.2	AN1	Recreation Use Total	M Visits	NA	0	1,787,000
XXXX	AT23	Trail Maintenance	Miles	NA	780	796

Table 1 - Continued

Wilderness Management (NFWM)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
64.3	AT1	Wilderness Trails on System	Miles	NA	0	1,427
XXXX	AT23	Trail Maintenance	Miles	NA	606	647.9
65.2	AC1	Heritage Sites Evaluated	Sites	NA	0	27
65.3	AC1	Heritage Sites Interpreted	Sites	NA	0	6
65.4	AC1	Heritage Sites Preserve/Protect	Sites	NA	70	59

Wildlife Habitat Management (NFWL)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
37.2	CW221	Wildlife Structures	Structures	NA	0	0
66.2	CW222	Wildlife Hab Rest/Enh	Acres	5,000	300	545

Inland Fish Habitat Management (NFIF)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
68.3	CI2221/222	Inland Fish Stream Rest/Enh	Miles	NA	3	3
68.4	CI2221/222	Inland Fisk Lk Rest/Enh	Acres	NA	0	0

Anadromous Fish Habitat Management (NFAF)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
70.3	CA221/222	Anad Fish Stream Rest/Enh	Miles	NA	17	17
70.4	CA221/222	Anad Fish Lk Rest/Enh	Acres	NA	0	0

TE&S Habitat Management (NFTE)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
39.2	CT221	TES Structures	Structures	NA	0	0
72.4	CA221/222	TE&S Aq Strm Hab Rest/Enh	Miles	NA	0	0
72.5	CT221/222	TE&S Aq Lk Hab Rest/Enh	Acres	NA	0	0
72.6	CT222	TES Hab Restored/Enh	Acres	64	100	210
72.9	CT1	Bio Assess/Evaluation	Tasks	NA	0	0
73.1	CT1	Recovery & Conserv. Plan	Tasks	NA	0	0
74.2	CT1	Species Delisted/Reclassified	Species 1/	NA	0	0
74.3	CT1	Sensitive Species Downlisted	Species 1/	NA	0	0

Table 1 - Continued

Grazing Management (NFRG)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
30.0	DL221	Range Structural Imp	Structures	NA	8	8
75.1	DL1	Grazing Allot. Adm to Stnrd	Permits	NA	24	24
75.2	DL1	Grazing Allot. Admin - Total	Allotments	NA	0	0
75.3	DL1	Grazing Allot Analyzed /Implmnt	Allotments	NA	4	0
75.5	DL1	Grazing - Sheep & Goats	Hd Months	NA	0	0
75.6	DL1	Grazing - Cattle & Horses	Hd Months	NA	0	0

Rangeland Vegetation Management (NFRV)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
9.0	DN241	Noxious Weed Treatment	Acres	250	250	1,392
29.0	DN222	Range Non-Struct Imp.	Acres	500	0	0
76.1	DN1	Rangeland Monitor/Evaluated	Acres	NA	0	0

Timber Sales Management (NFTM)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
16.3	PF2/24/241/-242	Fuels Treatment-BD	Acres	NA	2,000	1,371
17.1	ET1143	Volume Offered, New	MBF	NA	0	11,710
17.2	ET1143	Volume Offered, SSF	MBF	NA	0	10,671
77.4	ET1143	Volume Offered, New	CCF	NA	17,800	22,326
77.5	ET1143	Volume Offered, SSF	CCF	NA	35,600	20,715
77.8	ET1143	Volume Sold	MBF	NA	0	25,455
77.9	ET1143	Volume Sold	CCF	NA	0	45,311
79.1	ET12FS/PP/-TC	Volume Harvested - Total	MBF	NA	0	23,407
79.2	ET12FS/PP/-TC	Volume Harvested - Total	CCF	NA	0	41,665

Forest Vegetation Management (NFFV)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
19.0	ET24	Reforestation	Acres	940	2,086	2,265
19.0	ET24	Reforestation-KV	Acres	4,300	1,534	1,850
20.0	ET25	Timber Stand Improvement	Acres	700	686	1,049
20.0	ET25	Timber Stand Improvememt-KV	Acres	300	138	148

Table 1 - Continued

Soil, Water, Air Operations (NFSO)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
81.1	FA	PSD Permit Apps. Reviewed	Applications	NA	0	0

Watershed Improvements (NFSI)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
13.0	FW221/222	Soil & Water Resource Imp.	Acres	320	75	89
82.5	FW1	Class I Watersheds	Watersheds	NA	0	94
82.6	FW1	Class II Watersheds	Watersheds	NA	0	32
82.7	FW1	Class III Watersheds	Watersheds	NA	0	53

Non-Energy Resources (NFMG)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
84.1	GL1/GR1	N-Bond N-Energy Ops	Operations	NA	0	42
84.2	GL1/GR1	Bond N-Energy Ops	Operations	NA	0	2
84.3	GL1/GR1	Total Bond N-Energy Ops	Operations	NA	0	50
84.4	GL1/GR1	Bond N-Energy Op Adm To Stnd	Operations	NA	45	27
84.5	GE1	N-Energy Acres Processed	Acres	NA	0	0
84.6	GZ22	Abandoned Sites Reclaimed	Sites	NA	0	1
84.7	GG1	Geologic Mgmt Areas Admin.	Areas	NA	0	1
84.8	GL1	Geologic Permits/Reports Comp.	Reports	NA	0	4
86.1	GR1/GC1	Mineral Materials	Tons	NA	0	438
86.2	GL1	Precious Metals	Troy Oz. 1/	NA	0	0
86.7	GL1/GE1/G-C1	Industrial Minerals	Pounds 1/	NA	0	0
86.8	GL1/GC1	Base Metals	Pounds 1/	NA	0	0

Real Estate Management (NFLA)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
89.1	JL23	Landownership Admin	Cases	NA	0	0
89.2	JL122	Gen Special Use Aps Processed	Permits	NA	0	4
89.3	JL11	Auth Administered to Standard	Permits	NA	0	114
89.4	JL11	Auth Administered - Total	Permits	NA	0	119

Acquisition of Lands (LALW)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
31.0	JL26	Ownership Adjustment	Acres	NA	92	92
32.1	JL263	Land Exchange - Fee	Acres	0	0	0
32.2	JL263	Land Exchange - P/Interest	Acres	NA	0	0
34.0	JL251	Rights-Of-Way Acquistions	Cases	NA	0	2

Table 1 - Continued

Land Line Location (NFLL)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
33.0	JL24	Land Line Location	Miles	NA	8	10
90.1	JL23	Land Line Maintenance	Miles	NA	0	40
90.2	JL24	Special Area Boundary Location	Miles	NA	0	0

Road Maintenance (NFRD)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
91.2	LT23	Roads Maintained - Total	Miles	NA	4,028	4,028
91.3	LT23	Roads Obliterated	Miles	NA	12.2	18
91.4	LT23	Roads Fully Maintained	Miles	NA	0	1,479

Law Enforcement Operations (NFLE)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
92.1	PL133	Incidents	Incidents	NA	0	708
92.2	PL121	Cooperative Agreements	Agreements/1	NA	0	1

Forest Road Construction (CNRN, CNTM, CNGP)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
93.1	LT22	Road Construction	Miles	53	0	0
93.2	LT22	Road Reconstruction	Miles	30	32.8	21.0

Forest Trail Construction (CNTR)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
21.0	AT22	Trail Const/Reconst.	Miles	20	18.8	29.0

Forest Service Fire Protection (FFFF)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
16.0	PF111	Fire Protection Capability	Dollars	NA	0	$ 2,615,981
16.2	PF21,241,242,243	Fuels Treatment	Acres	4,540	6,307	6,674

Job Corps (FFFF)

MAR Code	Work Activity	Definition	Unit of Measure	Forest Plan Projection	FY 98 Target	FY 98 Accomplishment
41.0		YCC Participation	Enrolee Yrs	NA	0	0
43.0		SCS PArticipation	Enrolee Yrs	NA	7,280	1,227
44.0		NFS Program Volunteers	Enrolee Yrs	NA	0	0
44.1		Hosted Program/ Other HRT	Enrolee Yrs	NA	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 (1996-1998).

Table 3, "Projected Forest Funding Level", displays the actual FY 99 and projected FY 2000 forest budget by resource function. Dollars have been adjusted to constant 1998 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

The range betterment program on national forest lands is financed by a portion of grazing fee receipts. Fifty percent of grazing fee receipts are returned to the forest to fund the 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. These deposits are used in conjunction with the Congressional appropriated funds to provide maintenance for system roads by the Forest Service.

Challenge Cost Share Dollars

Challenge cost share agreements are federal funds matched by various states, and private nonprofit 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 1996		Fiscal Year 1997		Fiscal Year 1998	
	Allocation (FY 1998$) 1.03106**	Expenditures (FY 1998$) 1.03106**	Allocation (FY 1998$) 1.01198**	Expenditures (FY 1998$) 1.01198**	Allocation (FY 1998$) 1	Expenditures (FY 1998$) 1
General Administration	$1,662	$1,834	$1,411	$1,490	$1,257	$1,413
Recreation, Trails Mtc. and Wilderness	$1,699	$2,004	$1,514	$1,525	$1,607	$1,618
Wildlife and Fish	$1,122	$1,219	$931	$943	$955	$970
Range						
Range	$ 286	$285	$314	$351	$354	$237
Noxious Weeds	46	45	121	102	55	206
Soil, Air and Water	$401	$540	$309	$302	$315	$387
Minerals	$352	$373	$360	$359	$329	$349
Timber						
Timber Management	$1,115	$1,367	$1,197	$1,130	$940	$997
Veg. Improvement	812	460	694	749	850	777
KV Reforest/TSI/Other	2,282	2,077	2,024	1,270	1,375	1,083
CWFS Other-Trust Fund	52	96	51	49	445	526
Timber Salvage Sales	1,762	1,855	2,024	1,873	2,400	1,945
Protection						
Fire Protection & Fuels	$2,603	$2,843	$2,887	$2,877	$3,785	$3,811
Law Enforcement	$99	159	114	105	128	126
Brush Disposal	412	372	405	277	400	189
Lands						
Special Uses/Land Exchng		$140	$108	$150	$150	$214
Landline Location	$106	137	104	90	105	109
Facilities						
Facility Mtc.	$168	$213	$170	$175	$165	$171
Road Mtc.	667	732	655	643	665	657
Facility Const-Forest Adm	71	580	17	27	13	21
Pre Const-Capital Inv. Rds	358	564	314	349	252	352
Trail Const/Reconst	483	280	32	364	340	335
Ecosystem Management	$343	$343	$539	$615	$557	$521
Totals	$16,893	$18,518	$16,295	$15,815	$17,442	$17,014

Table 3

Forest Funding Level for FY 99 and Tentative FY 2000

Funding Description	FY 1999 (in M 1998$)	FY 2000 (in M 1998$)
General Administration	$1,039	$1,025
Recreation, Trails Mtc. and Wilderness	$1,652	$1,565
Wildlife and Fish	$1,005	$943
Range		
Range	$227	$212
Noxious Weeds	$265	$300
Soil, Air and Water	$285	$270
Minerals	$296	$240
Timber		
Timber Management	$882	$800
Veg. Improvement	$228	$250
KV Reforest/TSI/Other	$1,706	$1,600
CWFS Other-Trust Fund	$175	$175
Timber Salvage Sales	$2,100	$2,000
Protection		
Fire Protection & Fuels	$3,564	$3,290
Law Enforcement	$85.2	$80
Brush Disposal	$220	$200
Lands		
Special Uses/Land Exchng	$161	$135
Landline Location	$85	$80
Facilities		
Facility Mtc.	$173.5	$165
Road Mtc.	$660	$600
Facility Const-Forest Adm	$67.6	$50
Pre Const-Capital Inv. Rds	$231	$190
Trail Construction/Reconstruction	$50	$50
Ecosystem Management	$647	$630
Total	$15,719.1	$14,850

C. Forest Plan Monitoring Requirements

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

1. What is being measured;
2. Frequency of measurement;
3. Reporting period;
4. Variables which would initiate further evaluation;
5. The monitoring results; and
6. 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, 1997 - September 30, 1998)

Reporting Period: 5 years

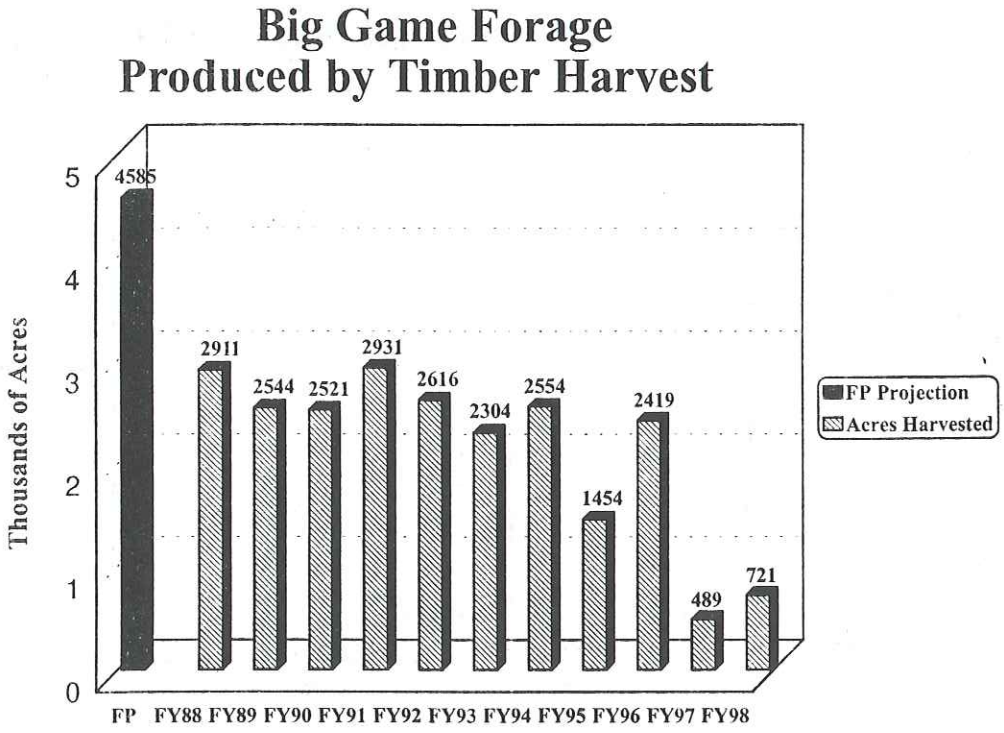
Variability Which Would Initiate Further Evaluation: Significant trend deviations (evaluated at 5-year intervals) from planned or expected forage-generating activities or events (timber harvest, prescribed fire, and wildfire).

Forage Production

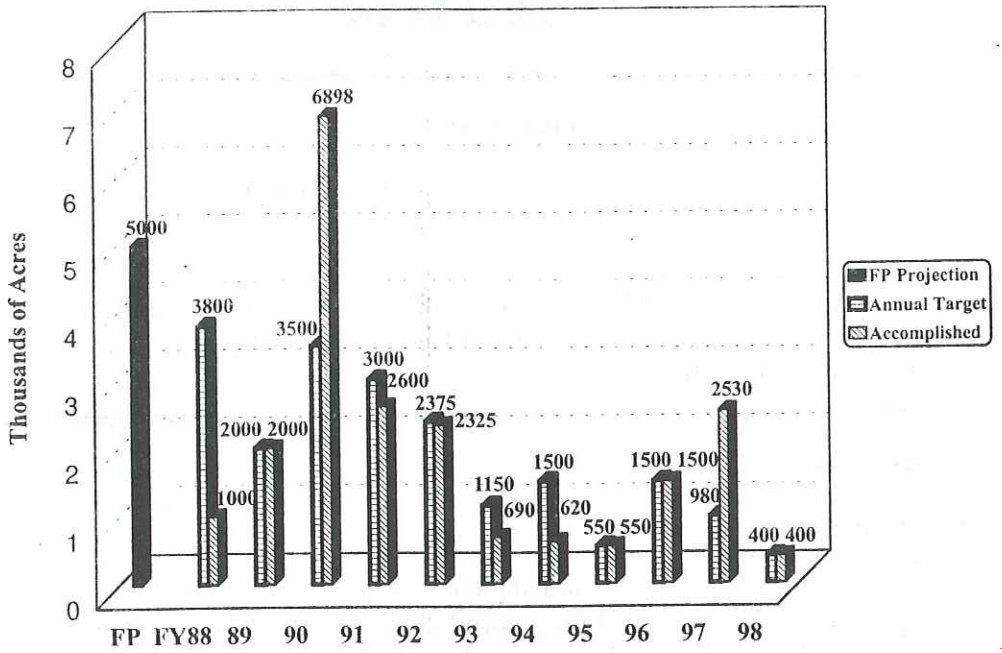
Monitoring Results:

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 forb 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 98 target and accomplishments, are depicted in the following graphs.



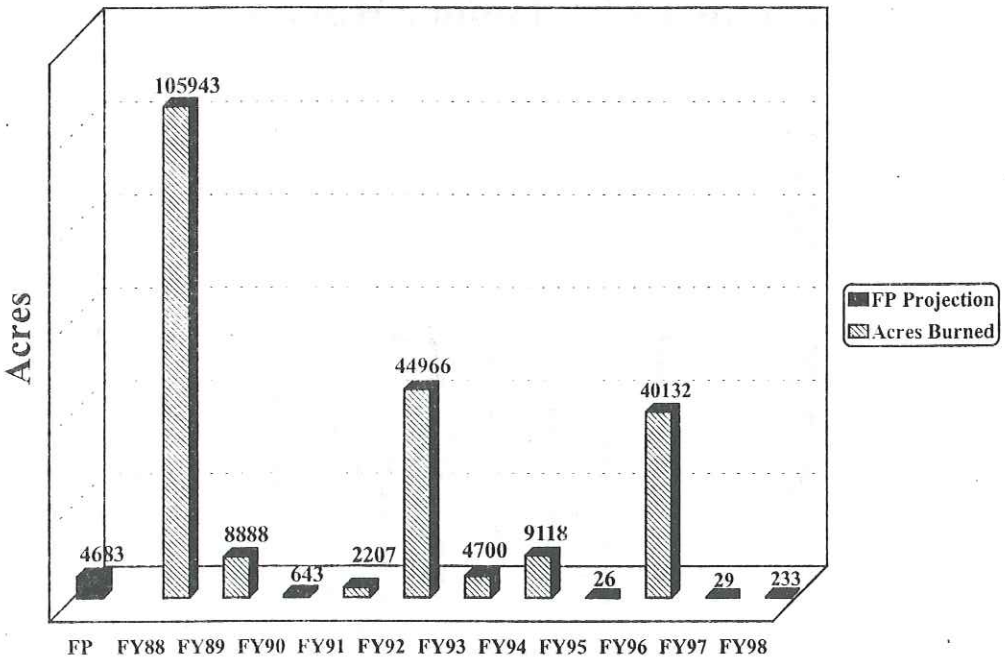
Big Game Winter Range Enhanced By Prescribed Fire



Evaluation of Monitoring Results

Since Forest Plan implementation, timber harvest that increased big game forage has averaged about 2,133 acres per year (46 percent of the Forest Plan projection). Prescribed fire projects for big game winter range have averaged about 1,919 acres per year (38 percent of projection). Though timber harvest and big game winter range prescribed fires have fallen short of planned acreages, wildfires have helped to compensate for these shortfalls.

Big Game Forage Produced By Wildfire & Prescribed Natural Fire



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 207,132 acres; 50 percent on approximately 463,372 acres; 75 percent on approximately 274,033 acres; and 100 percent on approximately 942,568 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 FY98 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 may conflict with motorized vehicle access 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. Only 8 acres of MA 21 were harvested in FY98. 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 FY98. The acres harvested in FY 98 are well below the 5 percent per decade limit and within Forest Plan standards.

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 has precluded gathering management data or conducting research to better describe preferred moose winter range characteristics. Reasons for limiting the clear-cut/burn harvest acres deal with yew's susceptibility to fire. Other vegetation treatments are not considered as winter moose habitat.

Item 1d: NonGame Habitat

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 5 years (FY 1992)

Variability Which 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 FY98, but site-specific Forest Plan Amendments may allow selective harvest in low elevation, dry site forest types as needed to protect and help prevent losses 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 98. Database review of acres harvested in FY 98 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. 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 understory 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 sights 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 windthrow, 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 98, no instances of formal consultation were required for terrestrial species.

Seven thousand (7,000) acres of terrestrial threatened and endangered species habitats were inventoried. One hundred (100) acres of TES habitat were improved.

Gray Wolf

Numerous unconfirmed reports over the past eleven years suggest individual wolves may occur naturally on the forest. Reintroduced wolves with radio-collars occupied the forest in 1998, and included wolves B5, B10, B18, B31, and B33. Two surviving pups born to B5/B10 in 1996 were located with the pair in May 1997, near the Trilby Lakes. There is no evidence of livestock depredation on the forest to date.

Grizzly Bear

One unverified report of a sow and two cub grizzly bears was documented in FY 98. Photos and video were reported taken but could not be obtained for professional review and verification. A poor berry crop has resulted in numerous reports of bold black bears seeking late summer feeds in canyon bottoms, campgrounds, and public dwellings. To date no confirmation of permanent grizzly occupation exists on the forest.

Peregrine Falcon

The Shingle nest exhibited intermittent visitations by peregrines in March and April, but was declared inactive and unoccupied in May after direct investigation by biologists. The Sheep Gulch nest was active in '98 and successfully produced three young in FY 98.

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

Evaluation of Monitoring Results:

The winter survey routes located on the forest yielded 13 adult birds and 2 immature birds. This was substantially higher than recent years. Weather trends, including the El Nino event, may partially explain such variances.

Forest Service Sensitive Animal and Plant Species Program

Monitoring Results:

Cooperative inventories of neotropical migratory bird populations (which include flammulated owls) continued in FY 98. Funding constraints limited the forest's potential to monitor other sensitive animal populations extensively. Active information/education programs expanded public awareness for these species.

In FY 98 the Canadian lynx was proposed for federal listing.

Conservation assessments and/or strategies have been developed on broad, landscape scales for the 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 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.

Item 1e: Acres of Big-Game Habitat Improvement

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

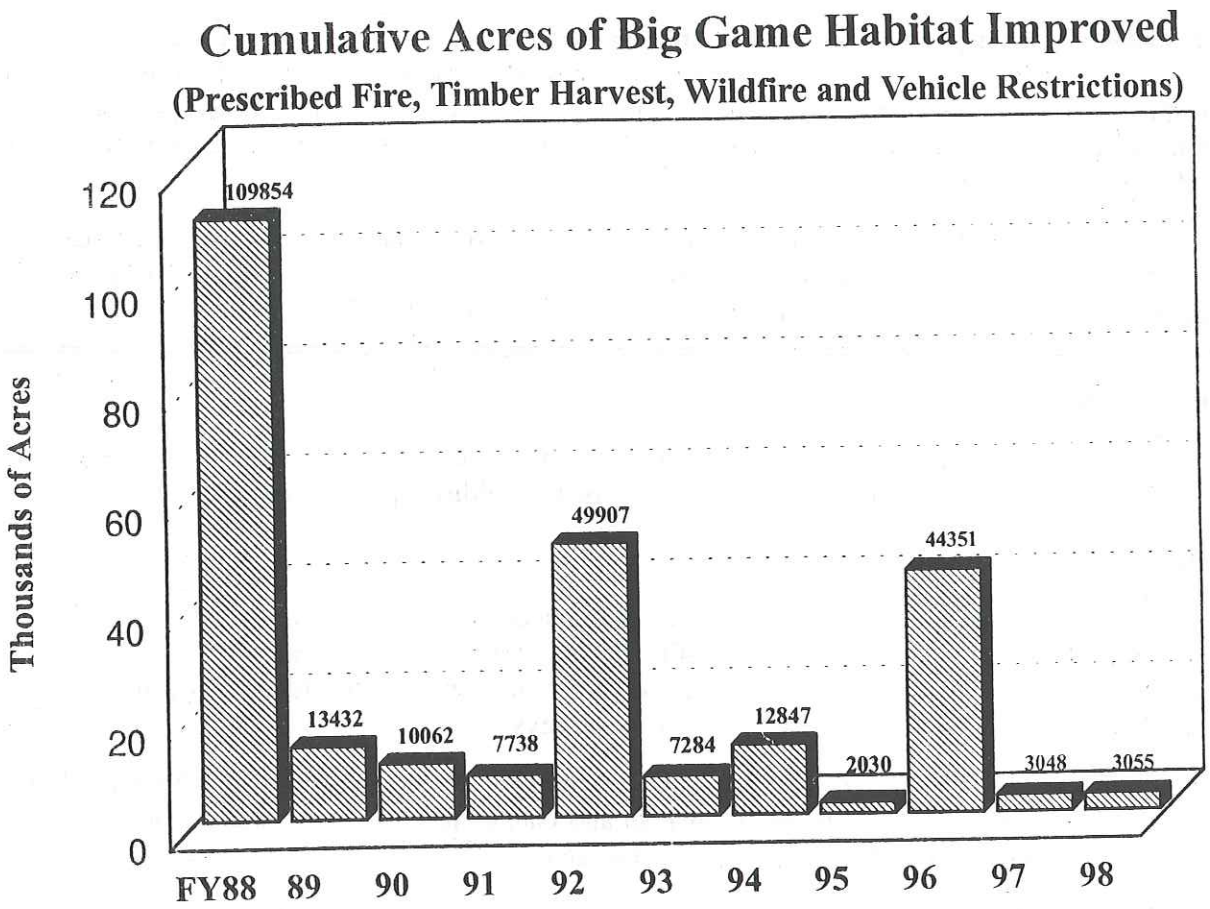
Reporting Period: Annually

Variability Which 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 98, the forest accomplished a total WL/TE habitat target of 400 acres. Prescription burning accounted for the improvements. Some 335 acres were burned or treated for noxious weeds using partner funds and 20 acres were improved with KV funds.



Evaluation of Monitoring Results

Approximately 20,713 acres of elk and deer winter range have been improved, using only prescribed fire, since implementation of the Forest Plan. The average annual accomplishment is 2,071 acres per year. This falls short of the annual target of 5,000 acres by 41 percent. The cumulative shortfall over 10 years is approximately 29,287 acres below forest plan projections.

Item 10: Population Trends of Indicator Species - Wildlife

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: FY 98

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 nongame and T&E 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 before variability thresholds can realistically be estimated.

Discussion:

This section covers those Management Indicator 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 unit 15) in FY 98. Winter census surveys since 1988 have yielded the following results:

Elk Population*
Estimated by Sightability

Unit[1]	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
15	---	---	856 +/-81	---	---	1236 +/-310	---	---	1544	No data	17.5 +/- 7.5
16	---	---	818 +/-122	---	---	1432 +/-156	---	---	1148	No data	No data
16A	1028 +/-261	---	---	961 +/-201	---	---	---	475 +/-114	---	No data	No date
17	4506 +/-535	---	---	3783 +/-279	---	---	---	4995 +/-555	---	No data	No data
19	---	1467 +/-37	---	---	1497	---	---	---	1566	No data	No data
20	---	1044 +/-48	---	---	1237+/-61	---	1115	---	1277	No data	No data

*Represents total population estimate of animals on the winter range of each unit.

[1] Idaho Department of Fish and Game, Big Game Management Unit

Bull:Cow Ratios
(Bulls per 100 Cows)

nit	Objective[2]	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
15	>20	---	---	20 +/- 5	---	---	11 +/- 5	---	---	9.6	No data	17.5+/- 7.5
16	>20	---	---	10 +/- 5	---	---	22 +/- 4	---	---	11.9	No data	No data
6A	>25	35 +/- 14	---	---	23 +/- 8	---	---	---	19.6 +/- 20.6	---	No data	No data
17	>25	26 +/- 5	---	---	22 +/-3	---	---	---	20.9 +/- 3.7	---	No data	No data
19	>25	---	21 +/- 2	---	---	17 +/1 2	---	---	---	15.0	No data	No data
20	>25	---	26 +/- 4	---	---	31 +/-5	---	19	---	21.4	No data	No data

Calf:Cow Ratios
(Calves per 100 Cows)

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

Evaluation of Monitoring Results:

Reduced budget levels allowed for IDFG to winter count unit 15 only in FY 98. The IDFG claims that the increase in bull:cow ratios in unit 15 likely relates to increased cow harvests which have been authorized in recent years.

Mild winters, varying degrees of hunter success (influenced largely by hunting season weather conditions) can significantly affect population data within any given hunting unit. In addition, the change in the elk tag system by the Idaho Department of Fish and Game has possibly influenced hunter distribution.

Moose

Monitoring Results:

Moose populations are not surveyed on the Nez Perce Forest by the Idaho 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.

[2]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.

Bighorn Sheep

Monitoring Results:

Bighorn Sheep Total Counts

Unit	1991	1992	1993	1994	1995	1996	1997	1998
17	52	---	---	28	43	No data	No data	No data
19	---	52	60	---	---	56	No data	No data
20	---	106	66*	87	---	78	No data	No data

*Incidental count, may not be complete

Evaluation of Monitoring Results:

Total numbers of bighorn sheep observed during surveys have declined in units 17, 19, and 20 since the early 1980's, however recent numbers in units 19 and 20 appear to be more stable than in unit 17.

Pileated Woodpecker

Monitoring Results:

Due to inadequate funding and other priorities, including Neotropical bird monitoring, no permanent transects were sampled in FY98. A summary of six years of data is displayed below for pileated woodpecker.

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

Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Totals	9	9	6	13	6	No survey	No survey	No survey	5	No survey	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.

Pine Marten/Fisher

Monitoring Results:

A marten/fisher monitoring survey was conducted on the 18 mile loop beginning at Erickson Ridge road (283) to O'Hara Saddle thence to Roads 464-472 and 1199. This is the original survey loop. Fresh tracks of marten (1 set) were observed. No fisher tracks were recorded. Other animal tracks observed included: bobcat, weasel, mink, coyote, moose, snowshoe hares, red squirrel and mice.

Goshawk

Monitoring Results:

One new nest or nesting behavior sighting was reported in FY 98 near Big Canyon Saddle. The bird defensively attacked Chris Jones, a contract bird survey crew member, while he was conducting Neotropical migrant bird surveys.

Neotropical Migratory Birds

Though not considered management indicator species at this time, surveys for species diversity and relative abundance of Neotropical migratory birds were done in FY98 through a partnership with Potlatch Forest Industries and the Clearwater National Forest. At the time this report was generated, summary data from 1998 was not available.

Item 11: Validation of Resource Prediction Models: Wildlife

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 2 to 6 years (FY 1997 to 1998)

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 judgement 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 is actively participating in 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 have completed tasks explored by the Venture 20 effort. Biologists are reviewing the elk model methodology for applicability and consistency.

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

Timber

Item 1h-1: Allowable Sale Quantity (ASQ) Sold By Components

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

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 first year of the second decade since the Forest Plan Record of Decision (ROD) was signed. During the first decade, the Nez Perce National Forest sold 506.5 million board feet (MMBF), which is 47% of the 1,080 MMBF ASQ.

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 nonchargeable 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 volume would be distributed to the regular and noninterchangeable 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).

This is the first year that the Forest Service has reported their accomplishments in hundreds of cubic feed (ccf). To maintain consistency and assure past figures are comparable, this report will continue to display volume in terms of MMBF. To be able to convert MMBF to ccf, simply divide the MMBF values by .562, which is the Forests 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 was used to convert the ASQ MMBF to CCF as indicated on the following table:

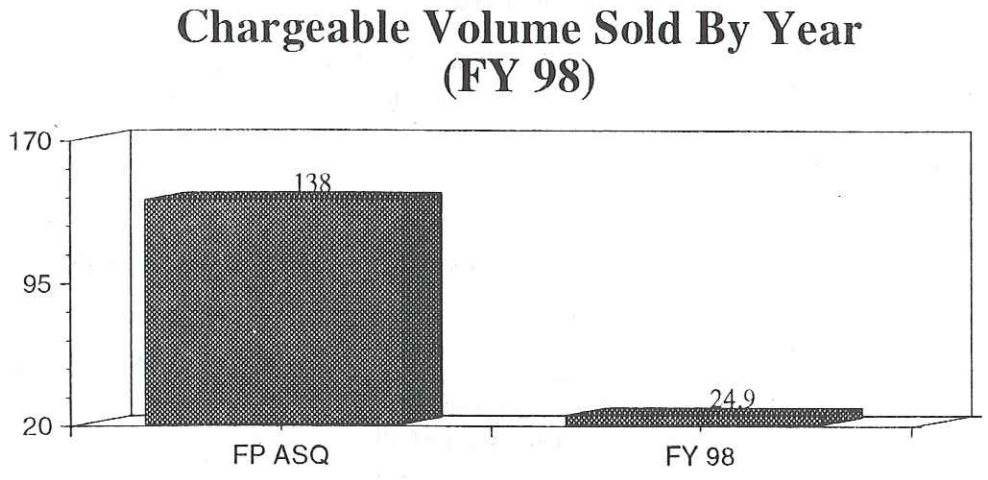
138 MMBF = 245,640 ccf
133 MMBF = 236740 ccf
5 MMBF = 8,900 ccf

Monitoring Results:

CHARGEABLE VOLUME SOLD IN FY 1988-1998*
(Volume Credited Toward ASQ on an Annual Basis)

Components	Volume (MMBF)										
	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY 98
Regular	104.8	68.9	70.2	94.3	1.3	32.1	6.6	7.5	25.6	21.1	24.5
Non-Interchangeable											
(NIC)											
• Pulp	1.3	7.6	10.3	4.8	14.2	10.2	6.4	6.4	2.5	.3	.2
• Cedar Products	2.4	1.1	2.7	3.5	0.1	0.1	---	---	---	.2	.2
Total	108.5	77.6	83.2	102.6	15.6	42.4	13.0	13.9	28.1	21.6	24.9

* The ASQ accomplishment breakdown was based on the Nez Perce Periodic Timber Sale Accomplishment Report accumulated as of September 30, 1998 (fiscal year summary).



The forest continues to sell well below the forest's ASQ, with this year's accomplishment being 18 percent of the regular component and 8 percent of the non-interchangeable component.

In Fiscal Year 1998, the Forest sold 2.2 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.

ASQ VOLUME SOLD TO DATE

Avg. Annual ASQ (second decade)	1998 Chargeable Volume Sold	Total Chargeable Volume Sold to Date	% of Avg. Annual ASQ Sold for First Year
133.0/year (sawlogs)	24.5 MMBF	24.5 MMBF	18
5.0 MMBF/year (pulp/cedar products)	0.4 MMBF	0.4 MMBF	18
Total 138.0 MMBF	24.9 MMBF	24.9 MMBF	18

Item 1h-2: Financed Volume Offered Attainment by Components

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

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:

CHARGEABLE AND NONCHARGEABLE VOLUME OFFERED IN FY 1998*

	Volume (MMBF) - FY 98
Assigned Target	30.0
Accomplishment (Volume Offered)	24.2
% of Target	81%

* Target accomplishment based on year end Periodic Timber Sale Accomplishment Report (PTSAR) taken from the STARS database yearend summary.

Evaluation of Monitoring Results:

In FY 98, the Forest failed to meet its financed timber target by 5.8 MMBF. Due to reductions in timber funding in FY 99, financed timber target on the Nez Perce is 27.8 MMBF.

Item 1i: Acres Timber Harvested by Method (Includes Precommercial Thinning)

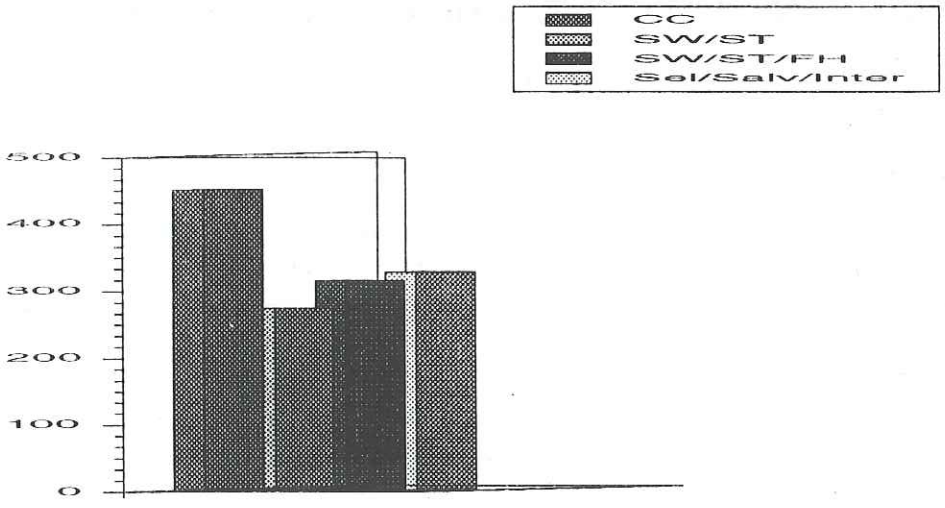
Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annually

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

Monitoring Results:

Harvest took place on 1,362 acres (449 acres - 33 percent clear-cut; 272 acres - 20 percent seed and prep cut from shelterwood and seed tree; 46 acres - 3 percent salvage; 314 acres - 23 percent from final harvest; and 281 acres - 21 percent from other cutting methods). It should be noted that harvest acres represent the acres actually harvested in FY 98 and does not correspond to acres sold because of modifications to timber sale contracts. The volume under contract appears to have stabilized at about 67 MMBF.



cc = clearcut
sw/st = shelterwood/seed tree
sw/st/fh = shelterwood, seed tree, final harvest
sel/salv/inter = select/salvage/inter????

Evaluation of Monitoring Results:

Harvested acres are expected to remain about the same for the next few years unless market conditions change significantly.

Item 2f: Vegetative Response to Treatments

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 5 years (FY 1998)

Variability Which Would Initiate Further Evaluation: Data and analysis which would indicated that projected yields from regenerated stands are in error.

Discussion:

Permanent growth plots provide a means to assess and predict the results of silvicultural treatments. An important function is to assess the accuracy of managed stand yield tables in forest planning models. These yield tables were built using Prognosis (now called Forest Vegetation Simulator - FBS), a growth simulation model.

Six permanent plots were remeasured during FY 98. The data has been forwarded to the Regional Office for analysis.

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, 1997 - September 30, 1998)

Reporting Period: 5 years

Variability Which Would Initiate Further Evaluation: Significant deviation from 5-year regeneration period after data is reviewed by an interdisciplinary team.

Discussion:

Data for this item comes from the Timber Stand Management Record System (TSMRS) and is summarized with the reforestation history, reforestation index report, and reforestation status report.

Monitoring Results:

Ninety-three percent of the acres planted in the past five years are progressing toward satisfactory stocking (are stocked). Replants are scheduled on the acres (seven percent) needing

additional stocking. Natural regeneration is certified or progressing on ninety percent of acres harvested in the past five years. The remaining ten percent are scheduled for additional treatment to ensure successful regeneration.

Evaluation of Monitoring Results:

Reforestation success has been static to slightly improving since Forest Plan monitoring began. Dry summers extending into fall and animal damage have been primary contributors to seedling mortality.

Item 5: Site-Specific Examination to Determine Suitability of Land for Timber Management

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 10 years (FY 1998)

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

Discussion:

Since the Forest Plan was implemented in 1987, land suitability classes have been assigned to individual stands. This is done during the compartment exam process and by interdisciplinary analysis for proposed projects. As stands are delineated, examined, or considered for treatment, suitability is assigned and recorded in the timber stand data base.

Evaluation of Monitoring Results:

As land suitability has been updated in the timber stand data base it is apparent that differences from Forest Plan assignments are becoming more significant. The entire suitability process must be re-evaluated in the revised Forest Plan. New proposed planning regulations have been published in the Federal Register. When and if these regulations are implemented, they should provide additional direction on this issue. This process could revise the specific criteria for describing tentatively suitable forest lands. The results of monitoring changes in suitability are scheduled to be fully evaluated during the Forest Plan revision.

Item 6: Maximum Size of Opening for Harvest Units

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annual

Variability Which 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 silviculture systems which include clear-cut, shelterwood, and seed tree. Openings may occur when even-aged systems are initiated. Where timber management is the driving objective, the opening occurs when the regeneration harvest entry is completed as the stocking levels are below the desired future condition. The only exception would be a preparatory cut in a shelterwood system. Even-aged silviculture systems may or may not create openings for other resource objectives depending on the desired outcome of the harvest.

Monitoring Results:

Three units were sold that exceeded 40 acres. Two of the units (50 and 58 acres) are clear-cuts with reserves and the other is a 43 acre shelterwood. They were all the results of salvaging stands with severe root rot. All were analyzed by an inter-disciplinary team and the public was notified.

Item 11: Validation of Resource Prediction: Timber

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Variability Which 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 silvicultural system
- Total acres by Management Area (MA)

The following four tables display the actual FY98 data taken from sales sold during this period. Sales contained in the actual FY 98 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 98 Vol/Acre (MBF)	Weighted Avg.* FY 98 (MBF)
Clear-cut (Units)	23.3	23.3
SW Prep Cut[1]	17.6	17.6
SW/ST Seed Cut[2]	17.4	17.4
SW/ST Final Cut[3]	13.9	13.9
Sanitation/Salvage	4.7	4.7
Commercial Thin	11.2	11.2
Selection Cut[4]	8.9	8.9
Weighted Average	15.4	15.4

* Weighted by acres sold

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

Silvicultural System	FY 98 Distrib. %	Weighted Avg. FY 98 Distrib. %
Clearcut (Units ROW)	20	20
SW Prep Cut	2	2
SW/ST Seed Cut	18	18
SW/ST Final Cut	23	23
Sanitation/Salvage	8	8
Commercial Thin	25	25
Selection Cut	4	4
Totals	100	100

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

Silvicultural System	FY 98 Acres Sold	Avg. FY 98 Acres/Year
Clearcut (Units - ROW)	299	299
SW Prep Cut	39	39
SW/ST Seed Cut	275	275
SW/ST Final Cut	333	333
Sanitation/Salvage	135	135
Commercial Thin	388	388
Selection Cut	61	61
Total	1,530	1,530

[1]/First entry in a 3 or 4 step shelterwood. The goal is to open up the canopy to improve seed production.
[2]/Regeneration cut, where the trees left will provide the seed for the next stand of trees.
[3]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).
[4]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 98 Acres Sold	Average Acres/Year
10	Riparian	--	--
12	Timber	539	539
16	Elk/Deer Winter Range	485	485
17	Visual/Scenic	483	483
20	Old Growth	23	23
21	Moose Winter Range	--	--
	Totals	1,530	1,530

Roadless Volume and Acres Sold

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
1998	8.9	549
Total	**8.9**	**549**

Roadless Acres Sold by Roadless Area

Number	Name	District	Sold Acres	Percent of Total Roadless Sold Acres
1,842	Middle Fork Face	Clearwater	549	100

Soil & Water

Item 1j: Soil and Water Rehabilitation and Improvements

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annually

Variability Which 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 75 acres of soil and water improvements using appropriated funds in Fiscal Year 1998. The forest reported 85 acres of accomplishment using NFSI and NFES funds and an additional 4 acres using CWKV funds, for a total annual accomplishment of 89 acres. The Forest Plan goal is 200 acres per year.

Summary of Improvements Accomplished in Fiscal Years 1988-1998

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

The following is a brief summary of 1998 watershed improvement projects by ranger district.

Salmon River Ranger District: The District reported an accomplishment of 18 acres using NFSI and NFES funds. Projects included road obliteration in John Day Creek and roadway drainage improvement in the Allison Creek drainage. Using CWKV funds the District accomplished seeding and fertilizing of 4 acres in the Scott Salvage Timber Sale area.

Clearwater Ranger District: The District reported 33 acres of accomplishment using NFSI funds. Projects included drainage improvement projects in Wall and Bully Creeks; recontouring of old roadways and drainage improvements in Bully, Dry Gulch, and Mill Creeks; as well as in a face drainage to the South Fork Clearwater River. Revegetation of exposed soils was accomplished in Brown's, Lower Meadow, and Cougar Creeks.

Red River Ranger District: With the administrative combination of Red River and Elk City Ranger Districts, these accomplishments occurred across both of the districts. A total of 6 acres of improvement was reported using NFSI and NFES funds. Projects included stabilization along Crooked River Narrows and flood damage repairs in Leggett Creek.

Moose Creek Ranger District: The District reported accomplishment of 28 acres using NFSI and NFES funds. Projects included decommissioning and obliteration of roads in the O'Hara

and Hamby Fork watersheds; drainage control and fencing at an old Forest Service Remount location on Coolwater Ridge; and continued revegetation work on the Wart Creek rock pit.

Effectiveness Monitoring:

A team of forest resource specialists evaluated past watershed improvement projects in Crooked River and in the O'Hara/Hamby Fork drainages for effectiveness of the implemented actions.

The Clearwater Ranger District monitored the success of Castle Creek stream channel and bank stabilization and revegetation efforts; photo points where compared to past years. The District also monitored the Bully Creek slides and recontour project for stabilization and revegetation success.

Evaluation of Monitoring Results:

From 1988 through 1996, the forest exceeded its Forest Plan watershed improvement goal of 200 acres per year. This goal has not been achieved for the past two years. An overall evaluation of the watershed improvement program has not been conducted. The nature of improvement projects continues the change described last year, with larger projects being developed to decommission unneeded roads which the forest can not afford to properly maintain. This shift in program emphasis is consistent with the Forest Service Natural Resource Agenda.

Item 2g: Impacts of Management Activities on Soils

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annually

Variability Which 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.

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.

Regional soil quality standards, proposed in 1997, are now in final form. These will, when adopted, supplement forest standards. Thresholds of compaction are similar between regional and Forest Plan standards. Displacement thresholds include a minimum area of 25 square feet,

which means that only large continuous patches of soil displacement are considered damaging. A damaging burn condition category is added.

Effectiveness of road cut and fill seeding was monitored on one timber sale (Otter Wing).

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

Monitoring Results:

Implementation Monitoring

Most environmental analyses completed in 1998 used soil information to describe soil limitations and opportunities within assessment areas. This information was usually used to assist in project design and development of specific mitigation measures.

Soil information was consistently used to predict sediment production. Predicted sediment was used to help select number, location, and scheduling of activity areas. Soil interpretations were developed for the Selway-Bitterroot Wilderness so that sediment modeling can be done more readily to evaluate effects of wilderness fires or other ground disturbances.

Landform, stream, slope and soil information was used with watershed historic files and photos to delineate landslide prone terrain for 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 adept at hazard identification, along with marking or harvest unit adjustment, to minimize risks.

Monitoring of a road system for a mining exploration project showed good compliance with the plan of operations.

Monitoring of a road constructed under an access easement across national forest land showed substantial erosion and inadequate compliance with the terms of the agreement. Significant on-site erosion is still occurring or the potential for substantial erosion still remains.

Effectiveness Monitoring

Effectiveness monitoring was conducted for one timber sale, in collecting pre-harvest data on soil density. The two sampled units are scheduled for forwarder logging. It is hoped this harvesting system will result in reduced levels and extent of soil compaction.

Effectiveness monitoring of an area of off highway vehicle use indicated that both non-system trails, and off-trail use were resulting in unacceptable levels of erosion. Most impacts occur in the spring when soils are wet. Trails up slopes of about 50 percent showed accelerated runoff and loss of vegetation. Non-system trails showed gullying up to 2 feet deep. System trails were also heavily rutted. Generally, most areas are open to OHV use unless the area is specifically closed.

While a sediment trap installed on a mining road system did not appear to have been needed, the steeply pitched road might have benefited more from spot rocking to control road prism erosion.

Road maintenance measures were evaluated on one low standard road. The short distance from the road edge to an important bull trout stream resulted in sediment from open top culverts reaching the stream, through ditches built to drain water from the culvert outfall.

The seed mix used on the Otter Wing road segments monitored were not effective in controlling erosion. Cereal rye was effective, but, as an annual, was declining in cover. The nonpalatable species seeded had established poorly and active rill erosion was evident. A revised seed mix was developed for immediate seeding as well as recommendations for shrub planting.

Validation Monitoring

Data from the 1997 landslide inventory has yet to be compiled and analyzed.

Data on ground cover, down wood , snag condition, and snag fall from a 1988 wildfire were collected. About 80 percent of snags are still standing after 10 years in the mixed conifer plots. All size classes have been affected about equally. Subalpine fir and Englemann spruce have fallen more rapidly than other species. Ground cover has continued to increase from litter and fallen wood. Rill and sheet erosion, never significant, was not evident.

Monitoring Evaluation:

Use of soil information in risk assessment, project analysis/design, and better understanding/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. Some funds have been made available for 1999.

Both implementation and effectiveness of erosion control measures on roads built to access private land were poor. Inadequate funding of special uses administration or forest priorities may limit agency ability to negotiate or enforce compliance in these situations.

Strategic allocation of limited road maintenance funds to address the issues of investments, safe trafficability, and resource protection requires interdisciplinary coordination in both scheduling and design of treatments. Effective erosion control measures can be applied to primitive roads without substantially affecting the experience or trafficability. Surfacing with coarse rock and installation of closely spaced, suitably designed drainage structures, and enhanced plant cover on cuts and sills are often successful.

Off-highway vehicle use is increasing dramatically and resulting in unacceptable resource damage. The issue of area closures can be addressed in watershed assessments or a forest-wide decision which would make only designated trails or areas open to OHV use.

Completion of the landslide inventory project needs 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 PACFISH and other aquatic conservation strategies.

Review of forest seed mixes is recommended to better achieve erosion control objectives while minimizing introduction of invasive non native species.

Item 2h: Impacts of Management Activities on Water Quality

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annually

Variability Which 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 streamflow 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 hygrothermographs, and two snow courses. Additional weather monitoring was conducted by fire personnel.

Water temperature data are collected at about fifty 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 twenty 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 within the next two years.

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 and 1998.

Evaluation of Monitoring Results:

Analysis of streamflow and sediment yield data from the gauged water quality monitoring stations is ongoing. From 1995 through 1997, 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. Analysis of water temperature data for the mainstem South Fork Clearwater River was conducted as part of a biological assessment.

Until Fiscal Year 1991, the forest issued an annual technical report entitled "Hydrologic Data Summary and Monitoring Analysis". This report summarized streamflow and climatic data collected on the forest during the previous water year. It also provided a more detailed analysis of water quality and related monitoring results than the annual Forest Plan monitoring report. Due

to personnel limitations and workload prioritization, no report has been issued since FY 91. The annual report format is not planned to be resurrected, but the data are available upon request, both in hard copy and electronic format.

Item 2i: Water Quality - Project Level Administration Reviews and Field Studies

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annually

Variability Which 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 1998. The monitoring was conducted by forest personnel with some assistance from other agencies and the public. The following activities were reviewed with respect to their effects on water quality:

Timber Sales:

Corral Hill Timber Sale (7/30/98)
No Business Timber Sale (7/31/98)
Berg Timber Sale (8/7/98)
Otter Wing Timber Sale (11/14/97, 7/14/98, and 9/15/98)
Jack Timber Sale (10/23/98)

Other Activities:

O'Hara/Hamby Road Decommissioning (7/22/98 and 10/2/98)
Footstool Fire (8/4/98 through 8/8/98)
Rapid River Fire (9/23/98 through 9/25/98)
Activities in the Crooked River Watershed (10/19/98)

Timber Sale Reviews:

Interdisciplinary field reviews were conducted on five timber sales. Review items related to water quality varied by sale, but typically included compliance with Idaho Forest Practices Act Rules, Forest Plan standards and guidelines, Endangered Species Act consultation requirements, and commitments made in project-specific decision documents. Additional documentation of timber sale monitoring reviews is found in Items **2g** (Effects on Soils) and **2j** (Effects on Riparian Areas).

Three of the timber sale reviews (Corral Hill, No Business, and Berg) were conducted jointly by forest personnel and the Idaho Department of Lands. On these three sales, all of the reviewed activities complied with the Forest Practices Act Rules, with one exception. The exception occurred on the No Business Timber Sale where a periodically plugged culvert was resulting in sediment delivery to a tributary of Slate Creek. This was a violation of the Forest Practices Act

Road Maintenance Rule 040.04.b It was recommended that the situation be stabilized prior to the onset of winter. This work was completed during the summer with installation of a drop inlet.

The other two timber sales were reviewed by Nez Perce National Forest interdisciplinary teams. Forest Practices Act Rules compliance was not systematically checked during these reviews, but any observed violations were noted.

The Otter Wing Timber Sale was reviewed on November 14, 1997; July 14, 1998; and September 15, 1998. These field reviews focused on those segments of Road #1875 and #9454 which were constructed in 1997; and Road #9463, which was under construction in 1998. The two completed roads were designed to meet a mitigation standard of 80 percent reduction of potential sediment production. On the completed roads, it was concluded that this standard was achieved on about two-thirds of the road length, and that an estimated 70 percent mitigation was achieved on the remaining one-third. Concerns identified on this one-third included:

-Cutslopes and fillslopes in need of stabilization;
-One partially plugged culvert inlet;
-Slash filter windrows constructed across streams; and
-Overwidth road segments at two stream crossings.

With the exception of the overwidth road segments, these situations were improved with additional measures taken after the field reviews. It is now estimated that the road is approaching the 80 percent mitigation criterion. Riparian management was also reviewed and the results are documented under Item **2j**.

The Jack Timber Sale was reviewed on October 23, 1998. The primary purpose of this review was to check compliance with riparian area management standards and this is documented under Item **2j**. Several sites were also reviewed on Roads #9553 and 9555A. These roads were felt to generally meet their design standard of 80 percent and 60 percent mitigation, respectively. Two areas of concern were identified:

-A seepy cutbank was delivering sediment to a small stream; and
-A section of non-ditch road was poorly drained.

These items await follow-up at the time of this writing.

Road Decommissioning:

Two road decommissioning projects were reviewed in the O'Hara Creek watershed on July 22, and October 2, 1998. Road #1123 was partially recontoured in 1997. It was felt this project was only partially successful at meeting its primary objective of long term sediment risk reduction. This was due to inadequate removal of fills associated with certain stream crossings. Based on design criteria, it was estimated that 80 to 90 percent of planned objectives were met. Follow-up work is planned for 1999 to more fully obliterate this road.

Full recontouring of Road #1129 was started in 1997 and completed in 1998. The work completed in 1997 was reviewed on July 22, 1998. It fully met design criteria, with natural and placed revegetation occurring beyond expectations. The 1998 work was underway when the review took place on October 2. Those road segments not associated with streams or seeps met or exceeded design criteria. However, some concerns were noted on other segments:

-One perennial stream crossing was not fully removed; and

-A seepy bog area was only partially drained.

The seepy area was subsequently repaired and an effectiveness monitoring study was initiated at the stream crossing and other sites. Closer scrutiny of design criteria will be made during implementation of projects in 1999.

Footstool and Rapid River Fires:

Stream channel morphology sites were remeasured in 1998 on the Footstool Fire, which burned in 1988 in the Selway Bitterroot Wilderness, and the Rapid River Fire, which burned in 1994. The 1998 data from Footstool and Rapid River Fires have not been analyzed to date.

Observations taken during the 1998 Footstool Fire surveys suggest that no significant changes have occurred in the physical stream channel characteristics at the five measured sites over the past several years. Riparian and upland vegetation continues to recover from the burn effects. Initial post-fire changes were documented in a 1991 report, which is available on request.

No obvious channel changes were observed at the three measured sites in the Rapid River Fire area. However, a July, 1998 thunderstorm initiated a substantial debris torrent within the burned area in McCrea Creek, a tributary to the West Fork of Rapid River.

Activities in the Crooked River Watershed:

Several activities in the Crooked River watershed were evaluated on October 19, 1998. These included road maintenance, off road vehicle use, and mining exploration. Results of this review are found under Item **2g**, Impacts of Management Activities on Soils.

Item 2j: Impacts of Management Activities on Riparian Areas

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annually

Variability Which Would Initiate Further Evaluation: Activity areas found in significant violation of Forest Plan standards.

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:

1) if riparian areas are delineated and evaluated during project design,
2) if preferential consideration is given to riparian-area-dependent resources in cases of unresolvable conflict,
3) if appropriate provisions of the Idaho Forest Practices Act (BMPs) are applied, or a variance sought, and
4) 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 consistently, due to PACFISH standards and consultation requirements under the Endangered Species Act.

Review of wetlands and floodplains occurred in one project area proposed for a land exchange.

One completed timber sale (Jack) and one marked timber sale (Wing Twenty) were reviewed for compliance with State Forest Practices Act and Forest Plan/PACFISH riparian direction. The review of the marked timber sale focused on identification and delineation of wetland features, and riparian area delineation along small discontinuous streams.

Effectiveness monitoring determines:

1) 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

2) if cover and security for riparian-dependent species have been maintained.

Effectiveness monitoring of a road decommissioning project was done to assess how objectives, designs, and operator skills affected success in removal of road segments to reduce landslide potential and restore channel morphology.

Effectiveness monitoring for livestock grazing was initiated in 1997. The purpose of this type of monitoring is to determine if grazing strategies are providing for an upward trend in key riparian parameters or is maintaining the desired conditions. Six Stream reaches were sampled in 1997. Three additional reaches were sampled along American River and American Creek during the 1998 field season. The focus is unconfined low-gradient stream channels that are sensitive to livestock grazing. The parameters that were sampled included streambank stability, streambank angle, and streambank plant community. These riparian attributes were selected because they appear to respond to changes in livestock grazing. Fifty-meter segments were randomly selected along selected stream reaches. The segments were then sampled for the key riparian attributes. The results for the initial sampling are shown in the results section below.

American River (AR)	1 reach; 4 sample segments
American Creek Inside exclosure (AC-I)	1 reach; 5 sample segments
American Creek Outside (AC-O)	1 reach; 4 sample segments

Validation Monitoring is used to describe riparian dependent resources, their values, and predict effects of management (Forest Plan II-12).

The aquatic landtype association map layer was completed in 1998 for the Selway assessment area. This is a broad scale land classification that complements valley bottom mapping. It uses landforms, stream pattern and morphology, and terrestrial/aquatic disturbance dynamics to describe patterns of aquatic habitat potential and response to management.

Stream order and gradient information was generated from digital elevation and stream data for the Selway subbasin.

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. Additional riparian areas are usually identified during sale layout. Additional coordination between sale layout and watershed staff could result in fewer missed wetlands and streams.

The review of the completed timber sale showed one violation of Idaho FPA provisions . A skidder crossed a wetland and considerable displacement resulted, but no sediment was delivered to a stream. The wetland had not been shown on the sale area map, because it was apparently not identified during sale layout.

In the same sale an operator-constructed road was built within 87 feet of a perennial stream, although a 150 foot buffer was required under PACFISH. No sediment appeared to be reaching the stream. Some potential woody debris and sources of shade were removed.

A unit was harvested to within 25-30 feet of a draw, which had not been identified as a stream course. Increased water yields after harvest may have caused the flow to appear, or the stream was not detected during unit layout. This stream, as an intermittent stream in a key watershed, should have been protected by a buffer of 100 feet either side of the stream. Good sale administration has been instrumental in identification and protection of many small riparian areas that would otherwise have not been protected.

In the review of the marked timber sale, it was proposed that wetland definition follow US Fish and Wildlife Service criteria. Plant community composition will be emphasized in preliminary identification, since

1) soil and hydrologic properties both require more expertise and site disturbance to assess, and
2) soil and hydrologic properties are less often evident than wetland plant community features.

Riparian area boundaries were adjusted to protect the newly identified wetlands. Additional training in wetland plant identification could help in delineating wetlands at the project level. There was no decision about the minimum size of wetlands for which PACFISH standards are invoked. Currently, wetlands less than one acre are to be protected by a 100 foot buffer. Two means to evaluate wetland size could be pursued: one would be to look at the historic scale of fire disturbance in wetlands versus uplands in natural fire regimes. This could identify the range of wetland size and fire settings in which wetland fire disturbance differs from its upland setting. A complementary approach would be to look at recently harvested units to assess wetland size and condition before and after harvest.

Efforts to consistently delineate and comply with PACFISH standards have improved markedly since they were adopted.

Monitoring assisted in identification of numerous wetlands and some floodplains in parcels proposed for land exchange. Some of the proposed roads would cross several wetlands and streams,

and skirt a pond. Because of federal direction to minimize loss of wetland function and value, the course of the project was significantly affected late in its development.

Effectiveness Monitoring

Operator skills were an important contribution to the success of the full and partial recontour in road decommissioning. Road fill material was removed from stream crossings and stream channels were restored. Reshaping stream channels was most successful where designers used valley morphology above and below the stream to recreate a channel compatible with gradients and valley widths that existed before road construction. Training watershed specialists how to inspect contracts will help assure that watershed improvement projects are more effective.

Range riparian monitoring segments documented the following species composition:

	AR	AC-I	AC-O
Avg. Bank Stability	90%	85%	81%
Avg. Bank Angle	96'	77'	103'
Plant Communities			
Sand/Gravel Bar			2%
Wet mdw sedges/rushes	78%	35%	25%
Bluejoint	6%	26%	6%
Red top/bluegrass	1%	3%	9%
Mannagrass			9%
Conifer			4%
Mesic mdw sedges/rushes	6%		15%
Tall Forb	8%		10%
Alder		36%	35%

This information will be compared with subsequent sampling along the same reach in the future. These first year samples are considered baseline information from which additional monitoring will be compared. The comparison will provide managers with an analysis of changes in the riparian attributes over time. Additional monitoring sites will be added in FY 99.

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 in FY 99 to assess historic fire effects in riparian areas stratified by reach, landform setting, and potential vegetation.

Monitoring Evaluation:

About three-fourths (3/4) of the non-wilderness forest wetland inventory maps have been prepared for spatial analysis (about one-third [1/3] of the total forest). There has been little change from FY 97. Progress in this effort would assist in more realistic delineation of riparian habitat conservation areas over the rest of the forest.

Although riparian areas are being well delineated, evaluation has proven more difficult, hence most activities are deferred. Riparian dependent resources, functions, and the management necessary for their maintenance are poorly understood. Data compilation and analysis at the forest

scale, but stratified by ALTA, valley bottom types, and disturbance regimes, will be needed to develop improved riparian management objectives.

Field reviews will continue to be needed to ensure that timber sale layout and marking, especially when done in winter or on steep slopes, accurately delineate site specific riparian habitat conservation areas, including unstable slopes. A consistent protocol for identification of landslide prone terrain has been developed. This protocol uses increasing levels of site specific information and expertise to delineate and design activities appropriate to sensitive slopes.

Early identification and timely evaluation of wetland and floodplain issues in areas proposed for land exchange would help the agency be more responsive to proponent time-frames and wetland resource protection.

Aquatic land type association mapping is demonstrating its utility as a framework in which to interpret aggregates of valley bottom and reach level survey information at subbasin to large project scales.

Item 11: Validation of Resource Prediction Models - Water Quality and Fish

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 2 to 5 years

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

In 1994, an evaluation of the forest's sediment yield model was completed through a master's thesis. The results of this study were summarized in the FY 94 Annual Monitoring Report. Other than continued data collection at field sites, no further validation work on sediment yield or fish response models was done on the forest in FY 98. A compilation of sediment yield model estimates tested against field data from a range of watershed scales is underway in FY 99.

Range

Item 1g: Animal Unit Months Grazing Permits

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annually

Variability Which Would Initiate Further Evaluation: +/- 10% of Forest Plan Estimate.

Monitoring Results:

The Forest permitted approximately 29,800 animal unit months (AUMs) during the 1998 grazing season. The Forest authorized through the yearly billing process approximately 27,000 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 10% less than the current permitted levels.

Item 1l: Range Analysis and Allotment Management Plan Updates

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annually

Variability Which Would Initiate Further Evaluation: +/- 10% 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 the current funding level and forest priority, all allotments that need revising will be updated by the year 2010. The scheduled identified four allotments that NEPA decisions were planned. Due to the work necessary to complete consultation under the Endangered Species Act (ESA) the planning effort for the four allotments was delayed or deferred to future years. Once consultation is completed 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

Allotment Name 1	Analysis Status	Time Period	Key Resource Values
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 Cr.	Revision Complete	1996	Riparian/Big Game
Papoose	Revision in progress	1998 (deferred)	Riparian
American River	Revision in progress	1998 (deferred)	Riparian
Elk Cr.-Lick Cr.	Revision in progress	1998 (deferred)	Riparian
East Fork	Revision in progress	1998 (deferred)	Riparian
Cannonball	Needs Revision	99-01	Wilderness/Recreation
Peter Ready	Needs Revision	99-01	Riparian
Butte Gospel	Needs Revision	99-01	Riparian
Hanover	Needs Revision	99-01	Wilderness/Riparian
Florence	Needs Revision	99-01	Riparian
Whitebird/Cove	Needs Revision	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 Mgmt.
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 were 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 streams 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% or less of the current years growth by weight, measured during the grazing period.
2. Shrub Utilization: 40% or less of the available current year's growth, measured as a percent of the leader length browsed.
3. Bank Disturbance: 10% 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 1998 field season.

Allotment Name **• Riparian Area**	**Forage Utilization**	**Shrub Utilization**	**Stream Bank Disturbance**
Allison-Berg Allotment			
• Berg Creek	1%	0%	0%
• Kelly, Van Creek	0%	0%	<5%
Butte-Gospel			
• Mill Creek	35%	0%	10%
Hanover Allotment			
• U. Wind River Mdw	40%	5%	35%
• L.Wind River Mdw	50%	5%	40%
• Hanover Creek	5%	0%	3%
• Indigo Creek	1%	0%	0%
Christie Allotment			
• Rhett Creek	10%	18%	8%
• Christie Creek	15%	10%	5%
• Joe Creek	25%	0%	4%
• Johnson Creek	20%	0%	13%
• Deer Creek	5%	0%	1%
Cow Creek Allotment			
• Bean Creek	20%	0%	2%
• Cow Creek	20%	0%	1%
• Kessler Creek	20%	0%	6%
• Kirkwood Creek	10%	0%	1%
Papoose Creek Allotment			
• S. Fk Squaw	0%	0%	1%
• Cabins (uplands)	25%	0%	NA
Peter Ready Allotment			
• Jungle Pt.	20%	10%	<5%
• Peter Ready Creek	20%	10%	7%
• N. Fork Slate Cr.	30%	5%	6%
• Mckinzie Creek	25%	5%	5%
Race Creek Allotment			
• W.Fk Race Cr.	15%	<5%	1%

Allotment Name • Riparian Area	Forage Utilization	Shrub Utilization	Stream Bank Disturbance
Sherwin Creek Allotment			
• Sherwin Creek	30%	5%	4%
American River Allotment			
• American River	Rested	0%	0%
• Lumber Luke Creek	0%	0%	0%
Blacktail Allotment			
• Schwartz Creek	0%	0%	0%
Corral Hill Allotment			
Kay Creek	0%	0%	0%
Earthquake Allotment			
• Earthquake Creek	<5%	0%	1%
• Edgewood Creek	<5%	0%	1%
East Fork Allotment			
• Flint Creek	20%	0%	1%
• E. Fork American River	0%	0%	0%
• E. Fork Horse Creek	0%	0%	0%
• Martin Meadow	0%	0%	0%
• Little Boulder Cr. Mdw	0%	0%	0%
Elk Summit Allotment			
• Viceroy Creek	0%	0%	0%
• Allison Creek	0%	0%	0%
• Moose Creek	0%	0%	0%
• Whiskey Creek	5%	0%	0%
Elk/Lick Creek Allotment			
• Limber Luke Creek	0%	0%	0%
Hamby Allotment			
• Hamby Creek	0%	0%	0%
• S.Fork Hamby Creek	5%	0%	0%
Hungry Ridge Allotment			
• Merton Creek	5%	0%	0%
• American Creel	10%	0%	1%
• Lower Mill Creek	1%	0%	0%
• Deer Creek	0	0%	0%
• Big Canyon	10%	0%	6%
• Dry Gulch	1%	0%	0%
• Grouse Creek	2%	0%	0%
Kirks Fork Allotment			
• Whitaker Creek	0%	0%	0%

Allotment Name • Riparian Area	Forage Utilization	Shrub Utilization	Stream Bank Disturbance
Mallard Creek Allotment			
• Big Mallard Creek	0%	0%	0%
• Soda Creek	10%	0%	0%
• Trapper Creek	15%	0%	0%
Meadow/Lightning Allotment			
• Cougar Creek	2%	0%	1%
• Farris Creek	15%	0%	1%
• Lightning Creek	15%	0%	5%
• Lower Meadow Creek	5%	0%	0%
• N. Mdw Creek	6%	0%	4%
• Orchard Creek	10%	0%	5%
• Rock Creek	7%	0%	1%
• Swede Creek	4%	0%	1%
• Wall Creek	0%	0%	1%
• Whitman Creek	15%	0%	5%
Newsome Allotment			
• Baldy Creek	10%	0%	1%
• Donkey Creek	0%	0%	0%
• Haysfork Creek	20%	0%	1%
• Leggett Creek	0%	0%	0%
• Mare Creek	0%	0%	0%
• Mule Creek	0%	0%	0%
• Pilot Creek	5%	0%	2%
• Reed Creek	0%	0%	0%
• Upper Newsome Creek	0%	0%	0%
Tahoe/Clear Creek Allotment			
• Swiftwater Creek	1%	0%	0%
• Lodge Creek	1%	0%	0%
• Brown Spring Creek	1%	0%	1%
Whitebird Creek Allotment			
• Fish Creek	35%	5%	5%
• Cabin Creek	35%	4%	5%
• Tolgate Cr.	20%	3%	20%
• Corduroy Cr.	20%	3%	6%

Evaluation of Monitoring Results

Monitoring suggests that, in general, permittees were successful in meeting the grazing standards stated in the annual operating instructions. Seventy-eight riparian areas were monitored for forage utilization, riparian shrub browsing, and streambank disturbance. Monitoring by forest personnel found that 97 percent, 100 percent and 95 percent of the riparian areas inspected were within the forage utilization, shrub browsing and streambank disturbance standard, respectively. 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 instruction for 1998.

Recreation

Item 1a: Recreation Visitor Days

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 5 years

Variability Which 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.

Monitoring Results:

Baseline recreational 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 that time annual updates have been accomplished primarily 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.

Observations of 1998 use indicate a general increase in recreation activities on the forest. Activities such as camping, picnicking, swimming, hiking, horseback riding, hunting, and fishing are increasing but at a slower rate than river use, ATV use, winter use (particularly snowmobiling), and viewing wildlife and scenery - which exhibit the most dramatic increases. Wilderness use also appears to be increasing during the summer. A rough estimate would put recreation growth at one to three percent for camping, picnicking, etc. and five to ten percent for river use, viewing wildlife and scenery, ATV use, etc.

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. Traffic counters were also installed on the snowmobile trail system and the groomed cross-country ski trail near Fish Creek Campground and on a stock/hiking trail at Rapid River Trailhead.

Evaluation of Monitoring Results

Due to declining budgets and a priority on maintaining service and maintenance of recreation facilities, less emphasis was placed on gathering visitor use information. Accuracy of recreation use estimates will improve when gathering such information increases in priority and funds are allocated accordingly.

Currently forest recreation use numbers are updated annually based on observations, comparisons or estimates by field personnel. Development and implementation of a more accurate monitoring system would provide better recreation use estimates.

Item 1b: Acres of Recreation Opportunity Spectrum (ROS) Category

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 5 years

Variability Which Would Initiate Further Evaluation: Following a 5-year period, variation which would indicated 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 Nez Perce 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 data base to track ROS acreage changes.

Item 2a: Off-Road Vehicle Impacts

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 5 years

Variability Which 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. The need to develop consistent methodology to monitor uses was recognized at the spring Access Coordinators meeting, however significant progress has not yet been achieved.

An opportunity to evaluate off-road impacts exists as part of watershed analysis. It is recommended that an ORV monitoring plan consider watershed analysis. The Newsome Creek Watershed Analysis team is assembling an initial inventory of off-road use areas and trails.

ORV impacts were documented in the Crooked River drainage as part of the Forest Plan monitoring. Due to logistics, this was not a comprehensive review of ORV impacts within the drainage, but did highlight some of the concerns with off-road use. Specifically, several informal trail sections that exhibited significant localized surface erosion were reviewed.

The Red River Ranger District placed boulders at four sites in the vicinity of Summit Flats to discourage the bypassing of gates by ORVs.

Evaluation of Monitoring Results

ORV impacts are not currently 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 recommend 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, 1997 - September 30, 1998)

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 98, 34 projects were inventoried for compliance with Section 106 of the National Historic Preservation Act as specified in the Forest Plan. The total number of projects inventoried was limited due to budget constraints. As a result, 2,365 acres were inventoried for cultural resources and 23 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

In addition to the new sites recorded, 57 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

A Passport in Time (PIT) project was completed at the historic Shearer Guard Station. Volunteers assisted with minor restoration work and general cleaning of the two log cabins at the site. They also assisted with an archaeological survey of the area. Two new sites were discovered and recorded with the help of volunteers.

Evaluation of Monitoring Results:

None of the 57 sites monitored were impacted. Monitoring of the 57 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.

Item 2d: Achievement of Visual Quality

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 5 years

Variability Which 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 twelve 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 direction.

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 quadangles (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 para-professionals to provide assistance on a project-by-project basis. Documentation of updates/revisions to VQOs should be more consistent.

The VRM system will be replaced with a new system called Scenery Management System (SMS). Some of the concepts of the new system are being incorporated into different types of analysis, however, the VRM system was 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 VQOs 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.

Item 2n: Management of Designated or Eligible Wild, Scenic, or Recreational River Segments

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

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 to be 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 US #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 breakdown of the classified rivers the Nez Perce National Forest is partially responsible for management by Wild and Scenic River Designation, previous and current funding, ROS, activities associated with the river, and proximity to Wilderness:

Attribute	Salmon River	Rapid River	Upper Selway River	Lower Selway River	Middle Fork Clearwater River
Length	79 Miles	13 Miles	42 Miles	19 Miles	10 Miles
W&S 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 w/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, private lands.	Roads, developed recreation, power boats, private lands.

Accordingly, river management on the Nez Perce must be viewed in a Regional and National context considering how our rivers contribute socially and ecologically to the wild and scenic river system.

Needs:

Social and ecological pressures on the forest and adjacent rivers are mounting. The demand to use and enjoy these waterways is increasing. On the Main Salmon for example, floating has been increasing at an annual rate of 2 percent and jet boat use is becoming much more popular during the fall period. Spring trail use at Rapid River has increased significantly, creating congestion at the Rapid River Fish Hatchery.

Levels and types of use have increased on the Selway Recreation River, and change in private landownership has made scenic easement administration more difficult. Public interest surrounding the recent Hells Canyon management decision and Frank Church River of No Return Draft Environmental Impact Statement readily demonstrate the complexity and controversy associated with river management issues. In addition, ecological impacts such as noxious weed invasion and private land subdivision threaten the character and integrity of our classified river corridors.

Following are specific issues or threats to Nez Perce National Forest and adjacent area rivers:

Social

1. Loss of agency credibility with our publics interested in River Management.

2. Increased use/demand for use of Nez Perce rivers resulting from management decisions in other areas (i.e. increased user fees on Colorado River, recent Hells Canyon decision).

Ecological

3. Increased use of ecologically sensitive, unregulated rivers and tributaries (South Fork of Clearwater, Meadow Creek, Rapid River etc.).
4. Expanding noxious weed populations.

Administrative

5. Development of unprotected private lands situated in classified river corridors.
6. Lack of policy and management consistency between districts, forests, and regions; and with other agencies.

Clearly, river management poses unique challenges and opportunities. Managers need to be proactive rather than reactive. There is a need for the Nez Perce Forest to:

1. Secure sufficient resources to accomplish at least base level management functions.
2. Enhance opportunities to secure addition resources.
3. Improve efficiency in accomplishing our tasks.

Goals

In order to fulfill our needs the following goals should be strived for:

1. Secure sufficient resources to accomplish base level management.
2. Secure additional resources through partnerships and other collaborative approaches.
3. Improve efficiency through sharing resources with other districts/forests/regions.

Program Components

Important Elements Needed for a successful forest rivers program:

1. Provide for full Forest Service presence within the river corridors during entire period when use is significant (control and shoulder seasons). Such a presence would result in:
   a. Promotion of low impact river use and deliver wilderness ethics messages.
   b. Assurance that all river corridor users have the necessary trip permits and equipment and are otherwise complying with requirements for use during the control seasons.
   c. Maintaining the river corridors in clean, natural condition year-round through monitoring, inventories, inspections, and clean-ups of the river banks, campsites and other high-use areas.
   d. Routine visits and development of positive relationships with land owners, user groups, and special interest groups.

e. Be available to assist the public in any safety situation on the river, and to assist the Idaho County Sheriff's search and rescue operations as needed.

2. Close cooperation with other authorities responsible for managing the River Corridors, especially the North Fork Ranger District (Region 4); West Fork Ranger District (Bitterroot NF); Lochsa Ranger District (Clearwater NF), Red River and Clearwater Ranger Districts (Nez Perce NF); and Bureau of Land Management.

3. Prevent establishment of and reduce existing infestations of destructive noxious weed species.

4. Continue involvement with wilderness planning, implementation, and monitoring (Frank Church EIS, Selway Bitterroot Plan, and Hells Canyon Management Plan including Rapid River).

5. Work closely with users, user groups, and private landowners to cooperatively accomplish projects within the river corridors.

6. Administer existing land easements to ensure compliance with agreements.

7. Increase other USFS personnel's familiarity with the Nez Perce Forest Classified Rivers and associated Wilderness. Facilitate involvement with forest, regional, and Washington D.C. office program managers, specialists, and researchers.

8. Pursue acquiring (easements or title purchase) additional private lands within the river corridors.

9. Provide historic and prehistoric cultural resources interpretation.

10. Provide logistical support in transporting necessary goods to and from field stations and for special projects involving individual or groups needing to do research, inventories, management reviews, etc.

Accomplishments

1. Maintained Forest Service presence (primarily through river patrols) on Salmon and Selway Rivers during and outside of control seasons. Selway River patrols were extended beyond the control season to monitor increased floating use resulting from favorable late season water levels and to assess visitor impacts on campsites. Extensive late season monitoring and public contacts were initiated in September on the Main Salmon River. This information will be used in the Frank Church River of No Return (FCRONR) planning process.

2. Continued cooperative management between various river managers for numerous activities and projects (Selway, Slate Creek, the Clearwater Forest, North Fork on Salmon/Challis, Payette National Forest, BLM, Idaho Fish and Game, and Idaho Department of Parks and Recreation). Nez Perce Forest river rangers assisted the Clearwater National Forest in early season river patrols on the Lochsa River.

3. Continued public contacts using an informational/educational framework to ensure river users apply low impact camping techniques, to ensure compliance with the laws and

regulations, and to reduce user conflicts. Close to 3,100 people were contacted on the Main Salmon and several hundred visitors contacted on the Selway river.

4. Maintained the river corridor in excellent condition through routine inspections and campsite cleanups. The Selway River beaches continued to be found in pristine conditions. About 360 pounds of garbage primarily resulting from early and late use were removed from the Main Salmon.

5. Noxious weed management. River patrols with assistance from many volunteer groups pulled 55 acres of noxious weeds (primarily spotted knapweed and rush skeleto weed) on the Main Salmon. Over the years such projects have freed up dozens of previously infested campsites. During September extensive ongoing inventories of the higher elevation drainages occurred. On the Selway River spotted knapweed biocontrol insects were monitored as part of a cooperative project with Rocky Mountain Elk Foundation. In addition, extensive weed inventories were initiated and pulling occurred on several campsites.

6. River patrols supported and assisted the scenic easement program, fisheries program, the Salmon River Canyon Burn Environmental Impact Statement effort, Boise Adjudication Team, and a research project to evaluate fire impacts on noxious weed establishment and spread.

7. River managers frequently visited private landowners/managers who live within the river corridors maintaining the working relationship necessary for effective management of the river canyons.

8. Forest river managers continued their assistance with the Frank Church River Of No Return Draft Environmental Impact Statement (FCDEIS) public involvement process. A separate noxious weed environmental impact statement was initiated for the forest.

Summary:

Management the classified rivers administered by the Nez Perce National Forest continues to move towards a multi-forest/multi-region approach. The forest is coordinating with the Clearwater, Wallowa Whitman, and Salmon-Challis Forests to maximize efficiency, provide continuity, and minimize redundancy. Public demand for river access continues to grow, particularly during the spring and fall months. In addition, ecological issues such as exotic plant invasion and development of private lands within the river corridors continue to be a concern. In 1998, information was collected on the extent, type, and timing of river use and inventories of noxious weeds occurred throughout the year with assistance from partners and private landowners. Information from these inventory/monitoring efforts will support the ongoing analysis projects (FCDEIS, Clearwater River Analysis, etc.) where decisions on river management issues will be made.

Fire, Insects & Disease

Item 1k: Acres and Numbers of Wild and Prescribed Fires

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: 5 years (FY 1996)

Variability Which Would Initiate Further Evaluation: Unusual number of person-caused fires over the 10 year average indicating a trend of a 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 costs of fire suppression (over the ten year average). Inability to meet expectations contained in the National Fire Management Analysis for the forest as per budget level allocated for current year.

A mild winter, followed by a wet spring, gave the 1998 fire season a very late start in central Idaho, with few fire starts prior to late July. However, above normal temperatures and limited precipitation, along with widespread lightning activity in August, provided sufficient ignitions to bring our average number of fires for the year to just above our 10-year average. Rains at the end of the first week of September curtailed the spread of large fires and we had relatively few new starts after that time.

During August we mobilized a fire use team at Moose Creek Ranger District to manage prescribed natural fire on this district. Long range planning and structure protection implementation was the major focus of the team and no suppression activity occurred on the prescribed natural fires. This marked the first year in which prescribed natural fire competed for resources on an equal footing with fire suppression.

Many of our local fire management resources provided extensive support to other areas of the country with Florida, Texas, and Montana receiving the bulk of our support. The Daniel Boone National Forest, Sabine Storm Incident, Eglin AFB, and other Region 8 forests constituted the larger part of our fire details. Off-zone detail assignments provided many of our personnel with training opportunities in a variety of Incident Command System positions. Thirty-three individuals were dispatched in trainee assignments and 21 people were designated as fully qualified in their positions.

The Nez Perce Tribe mobilized one Type 2 hand crew and we utilized this crew on three different occasions. They were not able to provide a camp crew during 1998.

Number of Fires
1994-1998

Type of Fire	1994	1995	1996	1997	1998	10-Year Average
Lightning Fires	320	81	301	69	189	204
Person-caused	19	5	18	5	5	15
Prescribed Natural Fire	0	20	17	17	19	10
Total	339	86	319	74	194	219

Acres Burned by Wildland Fire
1994-1998

Type of Fire	1994	1995	1996	1997	1998	10-Year Average
Lightning Fires	9,044	24	41,077	26	2,344	
Person-caused	75	1	1,549	3	1	239
Prescribed Natural Fire	0	14	28,150	16	1,734	3,326
Total	9,119	25	42,626	29	2,345	11,422

The forest 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.

Revision of the Selway Bitterroot Prescribed Fire Guidebook was completed by representatives from the three participating forests to reflect current policy and update operational procedures.

The second year of planning on the Salmon River Canyon Project concluded with the proposed action identifying 215,000 acres for prescribed burning treatment. Four alternatives are currently being analyzed, with the project scheduled to be completed by the end of 1999. The Bureau of Land Management, two Forest Service regions, and four national forests are participating in this planning effort to analyze 1.8 million acres.

The Nez Perce National Forest accomplished 9,780 acres of fuel treatment, a 32 percent increase from 1997. This continues the trend of increasing targets and accomplishment in fuels treatment.

Six thousand six hundred seventy-four (6,674) acres were accomplished through the hazardous fuel allocation. This slightly exceeded the target of 6,307 acres. One thousand seven hundred thirty-five (1,735) acres were accomplished through wildland fire use, which also counted toward the forest protection target. Brush disposal funding, treating fuels created during timber harvest activities, accomplished 1,371 acres of a 2,000 acre target. Year-end review of BD (trust fund) balances showed adequate funding available to complete all planned work.

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)

A total of 263 fire jumps were made from the Grangeville Smokejumper Base to 77 fires. Grangeville smokejumpers were also utilized on 48 additional fires in various parts of the United States and Canada.

The Grangeville smokejumpers experienced no injuries or loss of time accidents from parachute jumping, fire, or project work during 1998.

Grangeville smokejumpers accomplished over 13,000 hours of project work in 1998 in fuels management, timber sale preparation, trail maintenance, and cone harvesting.

Twenty-nine (29) percent of the crew and 30 percent of the smokejumper permanent positions are comprised of women and minorities.

Nine hundred sixty five (965) helicopter flight hours were flown in support of fire suppression, prescribed fire, and project work. Most of this activity was on the Clearwater and Nez Perce National Forests.

Over 56,000 gallons of retardant were pumped by the Grangeville tanker base during 1998. Approximately 17,000 gallons were dropped on the forest. The Clearwater, Bitterroot and other local protection units requested the balance of the volume pumped at Grangeville. Support was also provided on Nez Perce National Forest fires by the Idaho Department of Lands at Craigmont and the McCall Air Tanker base.

Item 7: Insect and Disease Activity

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

Reporting Period: Annually

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

Monitoring Results:

Most insect populations remained static from 1997 to 1998. Significant increases occurred in Douglas-fir beetle, mountain pine beetle in lodgepole pine, fire engraver in grand fir, and balsam wooly adelgid in subalpine fir. Working cooperatively with the Pacific Northwest Research Station and Oregon State University, the districts are monitoring concentrations of insects and evaluating treatment opportunities. The Salmon River, Clearwater, and Moose Creek Ranger Districts are actively trapping Douglas-fir beetles. Root disease continues to be a major problem in Douglas-fir and a minor problem in other species.

Evaluation of Monitoring Results:

In general, insect and disease conditions do not warrant area-wide control efforts at this time. However, significant population increases in Douglas-fir beetle, and mountain pine beetle in lodgepole pine between 1996 and 1998 indicate a need to monitor these insects. Silvicultural prescriptions will address stand treatment needs and mitigate the effects of insect and disease activity where possible. General insect and disease conditions will continue to be monitored to determine trends.

Facilities

Item 2k: Mitigation Measures Used for and Impacts of Transportation Facilities on Resources

Frequency of Measurement: Annually (October 1, 1997 - September 30, 1998)

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. In 1998, removal of an asbestos insulated 800 gallon hot water tank was completed at the Grangeville Air Center. This year, long-term radon monitoring was completed at the new triplex residences at the Elk City Ranger Station and the main and fire offices at Slate Creek Ranger Station. Results show that radon levels are acceptable except in the Slate Creek Office, where further radon mitigation measures are scheduled for implementation in 1999. Follow-up radon monitoring was also completed at two duplexes at Red River Ranger Station and results there show that radon mitigation systems installed several years ago are still working well.

Construction work completed in 1998 included interior office space and a potable water system for the warehouse at the Salmon River Seed Tree Orchard, renovation of rest rooms to include showers for fire fighters at the Clearwater Ranger Station, and initiation of construction of a fire warehouse at the Slate Creek Ranger Station.

Major repair and maintenance projects included replacement of HVAC systems at the Grangeville Air Center and Elk City District Office, and replacement of rotten logs on historical buildings at Moose Creek and Red River Ranger Stations.

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. Problems discovered during routine testing and monitoring led to the replacement of the sand filter at the Red River Ranger Station wastewater treatment plant this year. We hope to replace that high-operational-cost system with a lower cost system in the next few years.

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 in ALP (Automated Lands Program) 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/appropriated rights. In FY 98, the forest resolved one trail right-of-way (Shepp Ranch). The forest is actively working on three to five other right-of-ways and two trail right-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:

(a) 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.

(b) Route location, which ground-truths the results of the planning, refines locations, and provides further information on possible problem areas.

(c) Contract preparation, which assures that mitigation measures are incorporated into drawings and specifications to be followed when the facility is built.

(d) Administration, which assures compliance with the contract.

(e) 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:

(f) Designed and controlled cut slopes, fill slopes, road width, and road grades. These effectively reduce sediment production by fitting the roads to the land.

(g) 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.

(h) 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.

(i) 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.

(j) Seeding and fertilizing cut slopes, fill slopes, and other disturbed area. 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 I consultation process,

is now 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 98 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 fillslopes 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 1998

Project	Planned sediment mitigation (%)	Windrow slash	Asphalt/rock Surfacing	Rock ditches	Grass seeding Fertilization	Straw bales/mulch	SPS 204	Layer place fills	Temporary waterbars	Gates traffic control
Fisher Placer road 484	80	N/A	X	X	X	X	X	N/A		
650/1106 loop tie	80	N/A	X	X	X	X	X	N/A		
Grangeville Salmon Chip seal	N/A	N/A	X	N/A	X		X	N/A		
Bear Toes TS	80	X	X		X	X	X	X		X
Middle Fork TS	80	X	X	X	X	X	X	X	X	X
Goddard/OHara obliteration.	N/A	N/A	N/A	N/A	N/A	X	X	N/A		N/A

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

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 four hundred seventy nine (1,479) miles were fully maintained to standard. A total of 4,028 miles were maintained in FY 98.

Item 2l: Adequacy of Transportation Facilities to Meet Resource Objectives 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 access management program or if 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:

Traffic Surveillance

In 1984, the Nez Perce engineering section instituted a traffic surveillance program, using inductive loop equipment. This program was conducted up through 1992.

The objective of having a traffic surveillance program is to provide managers with data on use of representative forest roads. This information can be utilized in:

(1) justification for commitment of capital investment funds for reconstruction of existing system roads;

(2) preparation of Recreation Improvement Management (RIM) reports;

(3) access management planning;

(4) identifying high use/high maintenance roads, and allocation of road maintenance dollars to take care of them; and

(5) design criteria, i.e. (ADT - average daily traffic counts, turnout spacing, surface types, lane requirements, and signing).

The three highest traffic volume roads on the forest remain #223, Selway Road; #221, Grangeville-Salmon Road, and #1614, Salmon River Road. These roads are arterials and collectors with a majority of the traffic occurring on the portion of the roads maintained by Idaho County.

Overall, review of the traffic count program across the forest suggests that recreation related traffic is remaining fairly constant, with a noticeable peak around the start of the general big game hunting seasons and that timber harvest related traffic is declining.

Traffic surveillance was reactivated in 1998 along the roaded recreation corridors of the Selway and Salmon Rivers, and along the Grangeville Salmon Road.

Access Management

Road System

- Inventory:

  The current forest inventory (October 1998) shows 4,018 miles of road in the Forest Development Road System. Of this, 1,031 miles are open and the remaining 2,987 miles are either closed to all vehicular traffic or have use and vehicle restrictions on them.

  In 1998, the forest updated the "1998 Access Guide" (an itemized listing of access prescriptions for forest roads). This was produced as a complement to the Forest Visitor Map in an effort to provide more complete information to forest visitors.

  The South Fork Clearwater River Landscape Assessment was completed in 1998. The assessment included a review of access prescriptions by watershed. The percentage of road miles with some sort of vehicle or season of use restriction varies from a low of 44 percent (Tenmile Creek drainage - 24 miles total in the drainage) to a high of 82 percent (Red River drainage - 588 miles total in the drainage).

- Access for Hunters with Disabilities:

  Policy and guidance have been provided by the Regional Office in Missoula in the form of Forest Service Manual and Handbook direction for providing access to hunters with disabilities. The Red River Ranger District continues to manage a program that provides access to hunters with disabilities.

Trail Systems

The Forest Plan did not project the trail miles to be maintained each year. The present forest trail inventory includes 2,906 miles of Forest Development Trails.

a) 648 miles of our 1,427 miles of wilderness trails were maintained in 1998 (45%).

b) 796 miles of our 1,479 miles of non-wilderness trails were maintained in 1998 (54%).

For the motorized trail users, the forest has many areas available for this use, but now has two areas that have been developed specifically for this use:

a) McComas-Cougar Creek with 39 miles of OHV trails.

b) Florence Front Country with 120 miles of motorized trails which includes the newly finished Bullion section of the Idaho Centennial Trail. This segment connects the State's south routes by trail across the Salmon River at Wind River Bridge.

- Trail Reconstruction: The Forest Plan projected 20 miles of trail would be reconstructed every year. In 1998, 29 miles of trail on the forest were reconstructed to meet design standards, and address safety and resource issues.

- The forest also provides the following additional miles:

  1) Through the cooperative efforts of local organizations, Idaho County Commissioners, the State of Idaho Department of Parks and Recreation, and the Nez Perce National Forest, we currently have two snowmobile programs providing groomed trail systems from December 1 to April 1.

     a) State Unit 25A: Centered out of Fish Creek Recreation Area, this is a 120 mile groomed snowmobile trail system on the Clearwater and Salmon River Ranger Districts (with the Clearwater District having the lead). This system is sponsored and groomed by the Sno-Drifters Snowmobile Club of Grangeville, Idaho.

     b) State Unit 25B: Serving the Kooskia/Clearwater, Elk City, and Dixie, Idaho areas, this is a 180-360 mile system of groomed snowmobile trails (depending on snow conditions). These routes are located on the Clearwater, Selway, Elk City, and Red River Ranger Districts (with the Elk City District having the lead). This system is sponsored and groomed by Valley Cats Snowmobile Club - Kooskia, Idaho; 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 money making events sponsored by the local sponsors.

The Forest Services provides and/or assists in brushing, trail maintenance and signing.

2) The Clearwater Ranger District, in cooperation with the State of Idaho Department of Parks and Recreation, and 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 the grooming.

Travel management maintenance

Travel management requires ongoing maintenance of access control devices, signs, and permit management. The following table provides information on the levels of these activities for the forest.

Unit	Access Permits Issued	# of Gate/Barriers Repaired	Documented Access Violations
Salmon River RD	86	2	----
Clearwater RD	112	10 to 12	----
Red River RD	122	4	----
Moose Creek RD	21	8	----
Forest-wide			23

The Clearwater Ranger District completed a comprehensive inventory and assessment of deferred maintenance needs for gate, barrier and sign maintenance. This evaluation indicates approximately $7,000 worth of work is needed.

Evaluation of Monitoring Results:

- Access analysis documentation needs to be revised. Access analysis worksheets as contained in the 1988 Nez Perce Access Management Guide, have proved cumbersome. Computerized spreadsheets have better capability to display access alternatives in project analysis.
- 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, 1995 - September 30, 1996)

Reporting Period: Annually

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 which 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.

Out of 54 active Plans of Operation, 8 need modification or updating to more accurately describe existing surface disturbance and/or changes in the operation. This is an increase of 7 from 1996. A review of bonds being held by the forest indicate that 20 need to be revised or released. Many of these bonds are associated with operations that have had minimal activity for a number of years. If the bond is still active, the Plan of Operations is considered to be active. Of the 20 bonds needing to be revised, considerable progress was made this year to either release or revise at least 5 of these bonds. The following table displays this data

Ranger District	Active Plans of Operation	Plans Needing Modification	Bonds Needing Revision	Bonds Needing Release
Salmon River	11	1	1	0
Clearwater	0	0	0	0
Red River/Elk City	47	23	23	0
Moose Creek	0	0	0	0
TOTAL	**54**	**24**	**24**	**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.

Although the minerals budget has been on the rise, declining forest budgets overall, combined with a smaller workforce means we will probably not be able to correct this problem.

In FY 98, the forest saw a similar level of activity as in FY 97. Cyprus/Amax's exploration and gold properties were purchased by Kinross. Kinross continued the exploratory drilling on the Petsite project near Orogrande. Their proposal was scaled back from 1997, much less drilling occurred, with no road building. With continued low gold prices it is questionable how much exploration will continue. Kinross does plan to submit a new plan of operations for more drilling in 1999. The Million $ Placer did not operate on Crooked Creek in 1998. The same group, Grandma's Inc. submitted a plan of operations for exploration in the headwaters of Crooked Creek. The proposal was approved. The National Environmental Policy Act (NEPA) decision was appealed, but the ranger's decision was upheld. The exploration was not carried out in 1998. Several other small exploration and placer operations also occurred on the forest.

The forest continued to monitor recreational suction dredging operations. Monitoring included inspection of ongoing operations, counting the number of dredges operating, taking turbidity samples, and doing pebble counts above/below the operations and at the site of previous operations. There was a slight decrease in the number of dredges operating, 31 dredges operated at different times on the forest. Many dredges operated for only a few days to a couple of weeks. There are proposals for the operation of three 5-inch or larger suction dredges on Red River and the South Fork of the Clearwater. We are still processing these plans. Environmental impact statements are being prepared for two of these operations. Initial analysis of our monitoring results concerning the recreational suction dredges operating on the forest shows that the effects of recreational dredges are minimal.

The following chart 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.

Year	Plans Needing Modification (percent of total plans)	Bonds Needing Revision (percent of total plans)	Bonds Needing Release (percent of total plans)
1988	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

There are still instances of unnecessary disturbance to surface resources, but this is mainly a result of unauthorized mining operations. In FY 98, we saw a leveling out of interest by large mining companies, but a continuing interest by recreational miners. In FY 98, we were fully staffed except for a three month time period when the forest geologist was on maternity leave. Significant progress was made toward improving minerals administration.

Economics

Item 3: Cost of Implementing Resource Management Prescriptions

Frequency of Measurement: Annually (October 1, 1996 - September 30, 1998)

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:

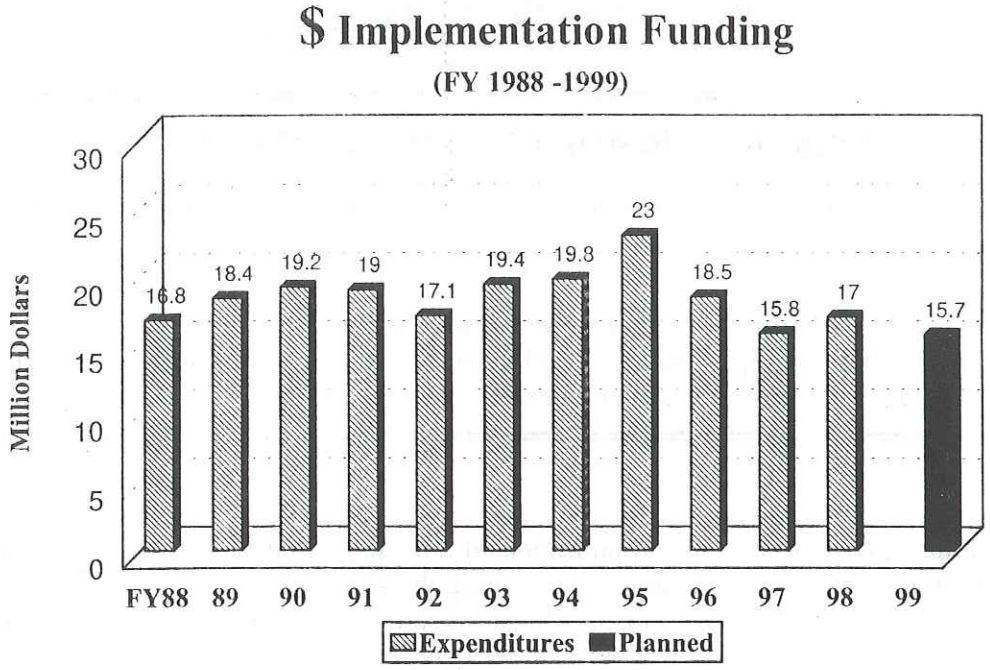
Table 2, found in the beginning of this report, displays budget allocations and actual expenditures for the fiscal years 1996, 1997, and 1998. Dollars have been adjusted to constant FY 98 values.

Table 3 displays projects annual costs for FY 99.

Corresponding activities and outputs for the prior 1996-1998 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.



The chart shown above displays funding levels expended by the forest in the past eleven years and the projected funding level for FY 99. Dollars for all years have been adjusted to 1998 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, 1996 - September 30, 1998)

Reporting Period: 10 years

Variability Which 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 nonmarket 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 1998 dollars)

Year of $ Factor	FP Projection 1998 1.31884	FY 1988 1998 1.31884	FY 1989 1998 1.26532	FY 1990 1998 1.21492	FY 1991 1998 1.16490	FY 1992 1998 1,13170	FY 1993 1998 1.10259	FY 1994 1998 1.07658	FY 1995 1998 1.05128	FY 1996 1998 1.03107	FY 1997 1998 1.01198	FY 1998 1998 1.00000
Timber	$16,728,217	$ 5,933,479	$9,198,498	$8,306,728	$5,382,474	$8,951,317	$9,724,297	$17,080,642	$5,677,844	$6,317,032	$2,851,953	$5,819,713
Range	$58,000	$ 44,924	$ 48,238	$ 50,667	$ 43,324	$ 42,164	$ 42,169	$ 44,992	$ 35,239	$ 27,530	$ 28,115	26,632

Timber Revenues

The differences between projected Forest Plan timber revenues and actual timber revenues in FY88-FY93 were due to two factors. First, we were not experiencing stumpage values as high as predicted in the Forest Plan. Stumpage values used in developing the Forest Plan were approximately $235/MBF in constant FY97 dollars. The actual experienced stumpage values were considerably lower. Second, timber harvest acres in FY 88-FY 93 were considerably lower than the predicted average annual harvest displayed in the Forest Plan (Table 1).

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.

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 also changed in 1991.

The revenue increase from 1992 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 Roads which was 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 1996 and 1997. The revenue increase in 1998 was due to the extremely high value of the timber in a single sale.

The following table displays gains or losses from timber harvesting and related activities for fiscal years 1988 through 1997. The information to calculate this value for fiscal year 1998 is not available yet. When it becomes available it will be provided to those interested. Payments to States have not been included in this analysis, because it has been determined that Payments to States is not a legitimate cost to the timber program. Payments to States are shown in item 8: Effects of National Forest Management Lands, Resources, and Communities Adjacent to the Forest, of this report.

Gain or Loss of the Timber Program (before payments to states)
(all figures are in 1998 dollars)

FY 1988	FY 1989	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
$ 370,505	$ 1,796,751	$ 821,982	<$2,357,983>	<$ 110,310>	$1,081,204	$6,147,975	<$1,873,672>	<$ 354,585>	<$2,218,478>	---

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 1998, grazing fees were $1.35 per head month for cattle and horses, and $0.27 for sheep. In 1998, 17,781 cattle and horse head months and 8,566 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, 1997 - September 30, 1998)

Reporting Period: Annually

Variability Which 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 which 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 which may to some degree be attributable to activities on or condition of national forest lands.

Following are some examples of the effects of management of the Nez Perce National Forest on adjacent communities and agencies in FY 98:

- In FY 97, the forest employed 360 seasonal and permanent people (compared to 540 in FY 95 and 352 in FY 96) and had a payroll of $11,145,510. Nez Perce National Forest employees bring diversity to local communities. Some are American Indian, Asian-Pacific Americans, and Hispanic Americans. Many employees donate their time and talent to a variety of local activities and causes. Nez Perce National Forest employees serve on local governing boards; school, church, and service club committees; and youth sports organizations.

- Payments to Idaho County from the sale of timber, grazing fees, other income, etc. from the Nez Perce Forest totaled $1,461,044 in FY 98. Payments to Idaho County from all national forests was $2,233,142, which includes the Bitterroot National Forest ($73,294) and the Clearwater National Forest ($698,804). The majority of funds from the Nez Perce National Forest were from the sale of timber. The following chart 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)		
Fiscal Year	Nominal Dollars	Constant 1998 Dollars
1998	$ 1,461,044	$ 1,461,044
1997	$ 714,852	$ 732,723
1996	$ 1,576,746	$ 1,606,407
1995	$ 1,217,808	$ 1,306,422
1994	$ 3,872,891	$ 4,258,311
1993	$ 2,197,978	$ 2,472,588
1992	$ 2,042,981	$ 2,358,744
1991	$ 1,303,797	$ 1,549,680
1990	$ 1,276,546	$ 1,582,713
1989	$ 1,243,278	$ 1,604,546
1988	$ 995,846	$ 1,339,622

- 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 chart 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 NF has declined since 1991. The effect likely will be reduced production, employment and perhaps closure of some area mills. Other effects 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)												
	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97	FY 98
Timber Harvested	89.1	72.9	99.5	93.4	72.8	81.4	69.2	89.9	38.8	38.3	19.4	29.8
Timber Sold	92.6	108.5	77.6	83.2	102.6	15.6	42.4	13.0	13.9	28.1	21.6	22.4
Vol Under Contract	235.9	290.0	243.6	220.0	255.0	189.8	162.1	75.2	60.7	54.1	63.3	55.9

- Total expenditures for fiscal year 1998, were $20,660,295. 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 the local economies through formal contracts ($2,400,000) and small purchases ($1,997,000).

- The forest continued cooperative agreements with the Idaho Department of Fish and Game and the Bureau of Land Management to study bull trout movements in the South Fork Clearwater River. The forest concluded the "Venture 20" exercise. More recently, the cooperative effort called the Clearwater Elk Initiative has begun pooling USFS resources and

involvement by state and federal entities with private conservation organizations to help restore local elk herds. Ranger districts entered into a number of cost share agreements with local organizations in FY 98. The purposes of some of these agreements were to maintain and construct trails, conduct fish and wildlife surveys, and improve fish and wildlife habitat.

- 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, 1997 - September 30, 1998)

Reporting Period: Annually.

Variability Which 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 at **not** exceeding the ambient air quality standards in 1998. 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 with 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.

Nez Perce Tribe: The Nez Perce National Forest was one of five forests which 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 Health and Welfare (IDHW) Division 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.

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 98 included: elk mortality research and incidental wildlife information gathering; information and support to assessment of TES issues on the forest; participation in developing various species conservation assessments and strategies; and input/collaboration to provide updating and winter surveys for elk and bighorn sheep populations.

Idaho Soil Conservation District (ISCD): The ISCD is the lead agency on a meadow restoration project in Red River. 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 1997.

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. This 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:

- Spring Bar Campground RV Grant - paving, replace tables, five accessible campsites.
- Off-Highway Motorized Vehicle Grants: Bullion Trail (Centennial Trail) - reconstruction of 2.8 miles of motorized trail.

Idaho Division of Aeronautics: The Board periodically inspects back country airstrips on the forest and has been involved in any new planning efforts and proposals for backcountry airstrips.

The Division helped reopen the Wilson Bar airstrip which was closed in 1992, and participates with annual inspection of the airstrip.

Idaho Conservation Data Center (ICDC): The ICDC cooperates with the forest in conducting presence/distribution surveys for three sensitive plants and provided numerous data queries about rare species sightings for biological evaluation.

Idaho County and Highway District: The forest works to cooperate on road maintenance with the Highway District on selected road sections. 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.

Idaho County Sheriff's Office (ICSO): The Forest Service provides funding to the ICSO to patrol national forest roads and campgrounds. The ICSO also assists the Forest Service during illegal protest activities on national forest lands by providing personnel and jail facilities as needed. The ICSO provides radio dispatching service to Forest Service law enforcement officers. The two agencies cooperate in search and rescue missions, and the Forest Service provides available equipment and personnel during other county emergencies, such as fires and flooding. Forest Service law enforcement officers are authorized to assist Idaho County in enforcement of state law violations occurring within the forest boundary.

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 52 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.

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.

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 condition along several miles of Red River that is located on state and private lands.

National Marine Fisheries Service (NMFS): The NMFS provided Endangered Species Act, section 7, informal consultation support and/or concurrence on 52 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 and Forest Plan consultation on steelhead trout (proposed for listing under the Endangered Species Act).

Idaho Department of Transportation: The Nez Perce Forest works with the DOT on certain aspects of managing State Highway 14.

Federal Highway Administration: The Nez Perce Forest works with the FWHA in matters related to the forest highway program and ERFO (Emergency Repair - Federally Owned) Program.

Evaluation of Monitoring Results:

In order to meet consultation requirements with National Marine Fisheries Service, a major part of annual funding and personnel have been allocated for work on biological evaluation for all projects and activities. The evaluations ensure that projects and activities have "no effect" or a "beneficial effect" on Chinook salmon and steelhead recovery.

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.

1. 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 participation 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 of 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
Elk City Ranger Station, Red River Ranger District	(208)842-2233

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

Accessible/Easy	Moderate	Difficult
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 managed to provide a 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 portions of sites. These are typically in: 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

Facility	Easy/Accessible	Moderate	Difficult
Fish Creek Pavillion 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*
14 Mile Tree Trailhead			Accessible at this level*
Rocky Bluff Campground			Accessible at this level*
Meadow Creek 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	100		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 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	No 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 1999, it is intended that all surveys and most transition plans for our administrative sites will be complete.

An addition to the Elk City Ranger District Station was completed late in 1996, making that office accessible. 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 which 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 2000.

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 2002. 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.

2. 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 98. 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)[1]
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	11,408	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						
00						
11 Year Avg	4.5	10.0	39,010	2,934	3.2	31.2
Total	49	110	429,108	32,272	---	343.2

[1]Proposed harvest volume figures in this table are different than those exhibited on Table 1 on pages X and X because of the rounding off of numbers.

Three new timber related decisions signed in FY 98 included Morrison Mistletoe (Salmon River Ranger District), CEPAC (Elk City Ranger District), and the Record of Decision for the Middle Fork Environmental Impact Statement (Moose Creek Ranger District). In addition, a decision on the 2021 Project (Clearwater ranger District) was made in January 1998, but was withdrawn in April 1998. A new decision on this same project will be issued in FY 99.

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.

As of the end of FY 98, (11 years since the Forest Plan went into effect), the forest had completed site-specific analysis of 47 percent of the total suitable land base of 911,669 acres.

3. 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, affect 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 move forward with an active 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.

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 greatest concern on the forest continue to be dyer's woad, rush skeletonweed, yellow starthistle, diffuse knapweed, Russian knapweed, toothed spurge, leafy spurge, sulfur sinquefoil, 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.

During the FY 98 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

and Idaho Horse Expo to educate forest users of the risks of weed invasions. Many user groups were contacted to discuss the risk of weed invasion to their interest areas.

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.

The forest used a variety of tools to treat approximately 1,300 acres, during the 1998 field season. Weeds were treated by the release of biological control agents, 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, spotted knapweed, Canada thistle, and goatweed. 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 results of this effort is the integration of the forest 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 the planning of weed treatments in the Frank Church River of No Return Wilderness. It is anticipated that a weed treatment decision will be completed in the summer of 1999, with treatment beginning in the fall.

The Forest received grants for cooperative weed management from the National Fish and Wildlife Foundation and the Rocky Mountain Elk Foundation. These funds were used in the Salmon River canyon as part of the coordinated partnership. Many of the funds were used across property lines to treat and manage high priority weeds, such as yellow starthistle and rush skeletonweed, important to the partnership.

The Forest continues to work with the University of Idaho, Forest Health Protection Group and Clearwater National Forest in the development of a field guide for the management and monitoring of Biocontrol agent for yellow starthistle. This work includes the distribution, release and monitoring of 5 insects that has been approved for release. It also incorporates vegetation monitoring as part of the management of the release sites. The results of the field work will be a protocol guide edited and published through the University of Idaho. The guide is expected to published in the summer of 1999.

4. Snag Fall and Fuel Accumulation after Wildfire

Snags provide important wildlife habitat and sources of large organic debris to soil and streams. The persistence of snags after fire or logging is little understood. We monitored snag fall and fuel accumulation rates in plots established in areas burned by wildfire and not subsequently salvage harvested. Data reported here are from 25 plots located in the Selway-Bitterroot Wilderness on the Nez Perce National Forest. Thirteen plots were established in the Rapid River fire area that burned in 1994, but are not reported here.

The .05 to .1 acre plots were established at about 4500 feet to 5300 feet elevation, in subalpine fir and grand fir habitat types. Eight of these plots are in riparian areas. Two hundred seventeen (217) trees were tagged and measured. Slopes ranged from flat to 50 percent. Aspects ranged from flat to south. Species composition at the time of the fire included grand fir, subalpine fir, Douglas-fir, lodgepole pine, and Engelmann spruce. Diameters ranged from 5 to 40 inches and mean diameter was about 13 inches DBH.

The fire occurred in 1988, so monitoring results are for 10 years. Monitoring has been periodic, at 1 to 3 year intervals. The fire was mostly stand replacing with mortality at 100 percent. Plot 4 in the Selway-Bitterroot was moderate in severity, but subsequent mortality amounted to almost 100 percent.

About 79 percent of trees were still standing after 10 years, compared to 92 percent that were standing after 8 years. Subalpine fir and Engelmann spruce seem to be falling the fastest. After 10 years, there was no difference in the persistence of large diameter trees compared to small trees; all size classes have about the same percent of trees still standing.

After 10 years, most snags have decayed to class 3: bark is sloughing, limbs have fallen, and tops may be broken.

Woody fuels, after 10 years, are about 9 tons per acre (25 plots); this is little change from the total first measured in 1994. Small fuels have accumulated while some large fuels (logs burned in the fire) have decayed. Litter and duff depth have appeared to stabilize at about 1 inch after 8 years.

RESEARCH NEEDS

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 HSI 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 specialists comprised of biologists from Idaho Dept. of Fish & 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 forestwide 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. Application of an elk vulnerability model was not addressed by the 1984 elk model in Appendix B of the Forest Plan. 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 Forestwide application of the 1997 version will require incorporation into the Forest Plan Revision Process.

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 which has no Pacific yew component?

3. The consequences of repeated burning, and of maintenance of forest ecosystems in prolonged seral brush stages, need to be evaluated.
4. Determine the relative effectiveness of fertilization compared to burning for improving wildlife habitat.
5. Determine and define corridor attributes needed to link old-growth stands.
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.
7. Habitat relationships and limiting factors for most sensitive 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.
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.
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. More information needs to be gathered and studied concerning the effects on the stream channel, habitats, and aquatic fauna.
10. Gloryholes, remnant of historical hydraulic mining, are large sources of sediment into our streams. Research needs to be completed that examines how we can correct the problem at the source rather than just using methods, like sediment traps, that require constant maintenance.
11. An accurate way of quantifying the short-term and long-term effects of road decommissioning on sediment production needs to be developed.

Accomplishment of Research Needs:

Repeated Burning: In 1991, an evaluation of the results of repeated prescribed fire on big game winter range was initiated. Results from the evaluation document the favorable responses of elk and deer to improved winter forage conditions, as indexed by elk and deer pellet counts and seedling and sprout counts of Scouler willow and redstem ceanothus. Burning appears to be effective throughout the 2000-4500 feet elevation range, and both north and south aspects. By 25 years after burning, elk use had declined. Soil organic matter levels were decreased by burning and by 25 years had not recovered levels typical of forest stands of 125 years or more. Litter nitrogen was lowest the year after burning and appeared to peak about 3 years after burning,

possibly due to the effects of increased decomposition after burning, or due to nitrogen inputs from nitrogen fixing bacteria associated with ceanothus. The natural fire regime in this area is not known, but fire history from 1880 to the present indicates that a return interval of 10-25 years for the Selway Face as a whole might be appropriate, but that individual stands might burn as frequently as every 10 years or as infrequently as 200 years. Aerial photos from 1932 indicate that mature forest cover before the 1934 fire was more prevalent than today.

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.

PLAN AMENDMENTS

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. A copy of any amendment(s) can be obtained by contacting the Nez Perce National Forest 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 an 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 the 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 base line 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 environment 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 found in 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 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 changes in the monitoring program were recommended by the Forest Interdisciplinary Monitoring Team in the Nez Perce National Forest Monitoring and Evaluation Report 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 which 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 FY95.]

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 a 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 1998. Members of the Forest Interdisciplinary Monitoring Team are **highlighted in bold type.**

Name	Area of Expertice
Nick Gerhardt	Hydrology and Watershed
Jerry Weigand	Timber
Leonard Lake	Range, Botany and Noxious Weeds
Nancy Rusho	Minerals
Kara Chadwick	Silviculture, Insects and Disease
Dave Green	Economics
Lois Geary	Budget and Finance
Randy Borniger/Laurie Doman	Recreation
Bruce Anderson	Rivers
Wayne Wright/Laurie Doman	Trails
Cindy Schacher	Heritage Resources
Randy Doman	Fire and Air
Pat Green	Ecology and Soils
Dick Artley	Land Management Planning
Steve Blair	Wildlife
Katherine Thompson	Fisheries
Joe Bonn	Facilities
Kathie Snodgrass	Disabled Persons Access
Daryl Mullinix and Jennifer Stephenson	Lands and Special Uses
Laura Smith	Illustrator
Monica McGee	Technical Support
Elayne Murphy	Public Affairs

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

Monitoring Coord	Salmon River Ranger District
David Harper	Clearwater Ranger District
Heather Berg	Moose Creek Ranger District
Kara Chadwick	Elk City Ranger District

In addition, the report was reviewed by the following individuals:

Bruce Bernhardt	Forest Supervisor
Ihor Mereszczak	Ecosystem Planning & Operations Staff Officer
Michael Cook	Lands, Administration, Trails, Engineering, and Recreation Staff Office
Byron Bonney	Fire Staff Officer
Phil Jahn	Heritage, Watershed, Ecology, and Biology 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

APPROVAL

I have reviewed the annual Forest Plan Monitoring and Evaluation Report for Fiscal Year 1998 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 — 8/25/99

BRUCE E. BERNHARDT — **Date**
Forest Supervisor

* APPENDIX *

Status of Action Items Identified in Prior Years

The action items shown below were identified between Fiscal Year 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 years report, together with an update of the resolution status. Action items that are 'complete" or "resolved" will not be repeated in future reports.

Action Item (s) Related to Timber	
Item #1	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 Years when the Action Item was 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.

Action Item (s) Related to Monitoring	
Item #1	Review the appropriateness of adding a monitoring element to the Forest Plan addressing the Forest situation regarding the existence and treatment of commodity vs. non-commodity vegetation.
Fiscal Years when the Action Item was identified	Fiscal Year 91
Current Status	Ongoing
Discussion	Under ecosystem management, vegetation with potential commodity use as well as other vegetation will be inventoried and analyzed through the landscape assessment process. Historic and existing vegetation will be evaluated and the desired future vegetation conditions will be defined. Progress towards achieving desired vegetative conditions (including harvest of those with commercial value) will be monitored and displayed in future M&E Reports as the assessments are completed in FY 96-99. Commercial vegetation removal and harvest will continue to be reported at years end in the Annual TSPIRS Report.

Action Item (s) Related to Wildlife

Item #1	The Forest needs to determine how fire or silvicultural prescriptions might be used to protect designated old growth from stand-replacing fires.
Fiscal Years when the Action Item was identified	Fiscal Year 93
Current Status	Ongoing
Discussion	Appendix F, Old Growth, in the South Fork Clearwater River Landscape Assessment speaks directly to the old growth protection issue. Several management themes were developed in the assessment to meet ecosystem management objectives including old growth protection and maintenance in various habitat types.

Item #2	Concise snag identification and marking directions to Forest Service timber marking crews must be included in timber marking guidelines. Consistent, noncontradictory timber sale contract clauses are needed to help retain snags and trees for replacement snags.
Fiscal Years when the Action Item was identified	Fiscal Year 93
Current Status	Ongoing
Discussion	Field monitoring of 4 timber sales in 1993 revealed the Forest Plan snag management guidelines were not being met in all cases. The problem is not with the timber sale contract clauses. The clauses contain adequate language to meet the desired snag numbers. Retention of an adequate number of snags requires that they be designated as "leave trees" by marking them with paint. It is vital that the intent of the silvicultural prescription be clearly translated into easily understood marking guides. It is also important that the actual marking is reviewed frequently by silviculturists and biologists to assure the desired end result is being implemented. State and Federal safety requirements are making it more difficult to retain snags in the working area. New OSHA regulations require that each danger tree shall be felled, removed or avoided. Snag marking in the future must consider safety. Marking snags in clumps and marking snags that are least likely to be considered a "danger tree" are options that will be used in the future

Action Item (s) Related to Wildlife (continued)	
Item #3	The Forest needs to continue to discuss with the Nez Perce Tribe alternatives to prescribed fire in achieving big game winter range improvements.
Fiscal Years when the Action Item was identified	Fiscal Years 93, 94 and 95
Current Status	Ongoing
Discussion	The natural fuels/hazardous fuels reduction program exceeded the Forest Plan projected output of 6,265 acres for the 1998 to 2007 period by accomplishing 7032 acres this year. This also met our MAR target of 6,085 acres. Current hazardous fuels accomplishment by prescribed burning meets a number of ecosystem management objectives including big game winter range improvements. Fuel treatment from all funding sources increased by 32% over 1997, the second year of program increase. Rocky Mountain Elk Foundation contributed funding to prescribed burning projects. The trend of accomplishments over the last three years shows improvement in meeting Forest Plan projected outputs. An Interdisciplinary Team established for the Salmon River canyon Project continued an interagency and multi-forest effort to increase fire use in support of ecosystem management. This large planning effort will increase the number of acres treated by prescribed burning.

Item #4	Fisher/pine martin transects need to have consistent annual readings to produce more useful data.
Fiscal Years when the Action Item was identified	Fiscal Years 93, 94 and 95
Current Status	Incomplete
Discussion	In FY 96, consistent annual readings of winter track count transects were precluded by erosion of funding for this kind of activity. Budget earmarked priorities (such as neotropical migratory bird monitoring) and reduced available personnel resources have both contributed to this weakness. The need to monitor fisher populations is greater than that for pine marten due to the relative scarcity and difficulty in monitoring the fisher versus the relative abundance of pine marten track sign.

Action Item (s) Related to Wildlife (continued)	
Item #5	The Forest should reinitiate Pileated woodpecker surveys with sample size and regularity increased to improve data reliability.
Fiscal Years when the Action Item was identified	Fiscal Year 95
Current Status	Incomplete
Discussion	Work is dependant on funding and personnel availability.

Item #6	As funding permits, the Forest should gather management data to better describe preferred moose winter range characteristics.
Fiscal Years when the Action Item was identified	Fiscal Year 94
Current Status	Incomplete
Discussion	Reductions in available budgets along with shifting priorities and reduced staff time continue to reduce the Forest's ability to clarify and better describe moose winter range characteristics. The forest-wide yew wood inventory (from FY 93) remains available for review and to assist in conflict resolution when and if funding and personnel resources can be diverted to the task.

Item #7	The Forest needs to concentrate on completing more accurate inventories of snags before and after timber harvest.
Fiscal Years when the Action Item was identified	Fiscal Year 95
Current Status	Ongoing
Discussion	Work continues as funding and personnel permit.

Action Item (s) Related to Recreation

Item #1	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 Years when the Action Item was identified	Fiscal Year 89-91, 94 and 95
Current Status	Not Completed
Discussion	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. 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 the principle mitigator for timber harvest. This is having significant effects on the long-term potential for recreation use and opportunities on the Forest.

Item #2	Implement the National system called Infrastructure, which will be used to improve the gathering and documentation of visitor use information
Fiscal Years when the Action Item was identified	Fiscal Years 94 and 95
Current Status	Ongoing
Discussion	The Nez Perce Forest has implemented Recreation Infrastructure, however, more work needs to be done on the RIM system as it relates to this database. The current estimates of recreation use by activity are not statistically accurate. Higher priority needs to be given to gathering recreation use information.

Action Item (s) Related to Recreation (continued)

Item #3	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 Years when the Action Item was identified	Fiscal Years 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 project proposal for ecosystem management funding. It was the third priority project submitted for recreation and was not funded.

Item #4	Establish a system of measurements for more precise monitoring of sites eligible to the National Register of Historic Places.
Fiscal Years when the Action Item was identified	Fiscal Years 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.

Item #5	Continue to replace substandard signs in the wilderness.
Fiscal Years when the Action Item was identified	Fiscal Year 94
Current Status	Ongoing
Discussion	The Forest is continuing to replace substandard signs in wilderness as funding levels allow.

Action Item (s) Related to Recreation (continued)

Item #6	The Middle Fk of the Clearwater River Management Plan needs to be updated and the administration of scenic easements needs more emphasis
Fiscal Years when the Action Item was 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.

Item #7	Formally adopt a new "roaded modified" Recreation Opportunity Spectrum (ROS) class for the forest.
Fiscal Years when the Action Item was identified	Fiscal Year 95
Current Status	Ongoing
Discussion	Work continues in this area as funding allows.

Action Item(s) Related to Fisheries

Item #1	Fishery 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 Years when the Action Item was 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.

Action Item (s) Related to Fisheries

Item #2	Monitoring of fish habitat condition needs to be adequately funded, staffed and given a higher priority for accomplishment.
Fiscal Years when the Action Item was identified	Fiscal Years 93 and 94
Current Status	Ongoing
Discussion	The Forest is experiencing reduced budgets and as a result, is downsizing the workforce. In FY 96, the Forest will complete a workforce analysis in order to prioritize the work and match with existing skills. The results are unavailable at this time.

Action Item(s) Related to Soil and Water

Item #1	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 Years when the Action Item was identified	Fiscal Year 94
Current Status	Ongoing
Discussion	Work continues as funding and personnel permit

Item #2	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 Years when the Action Item was identified	Fiscal Year 94
Current Status	Incomplete
Discussion	The priority of such work has not been high enough to warrant funding. Noting done to date.

Action Item(s) Related to Soil and Water (continued)

Item #3	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 the Action Item was identified	Fiscal Years 93 and 94
Current Status	Ongoing
Discussion	In FY 97, the Forest worked on two Ecosystem Analysis at the Watershed Scale: Slate Creek and Newsome Creek. Also, in FY 97, the Forest worked on the first of 3 landscape assessments at the 4th code HUC scale (750,000 - 1,000,000) acres in preparation for Forest Plan revision. This first landscape assessment will cover the South Fork Clearwater River drainage. The second such landscape assessment is planned for early FY 99 completion in the Selway River drainage. In FY 99 work will begin on the Salmon River landscape assessment.

Item #4	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 Years when the Action Item was identified	Fiscal Year 95
Current Status	Ongoing
Discussion	Meadow conditions were evaluated in the summer of 1996 and spring of 1997. A restoration plan is being refined with implementation ongoing.

REFERENCES

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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