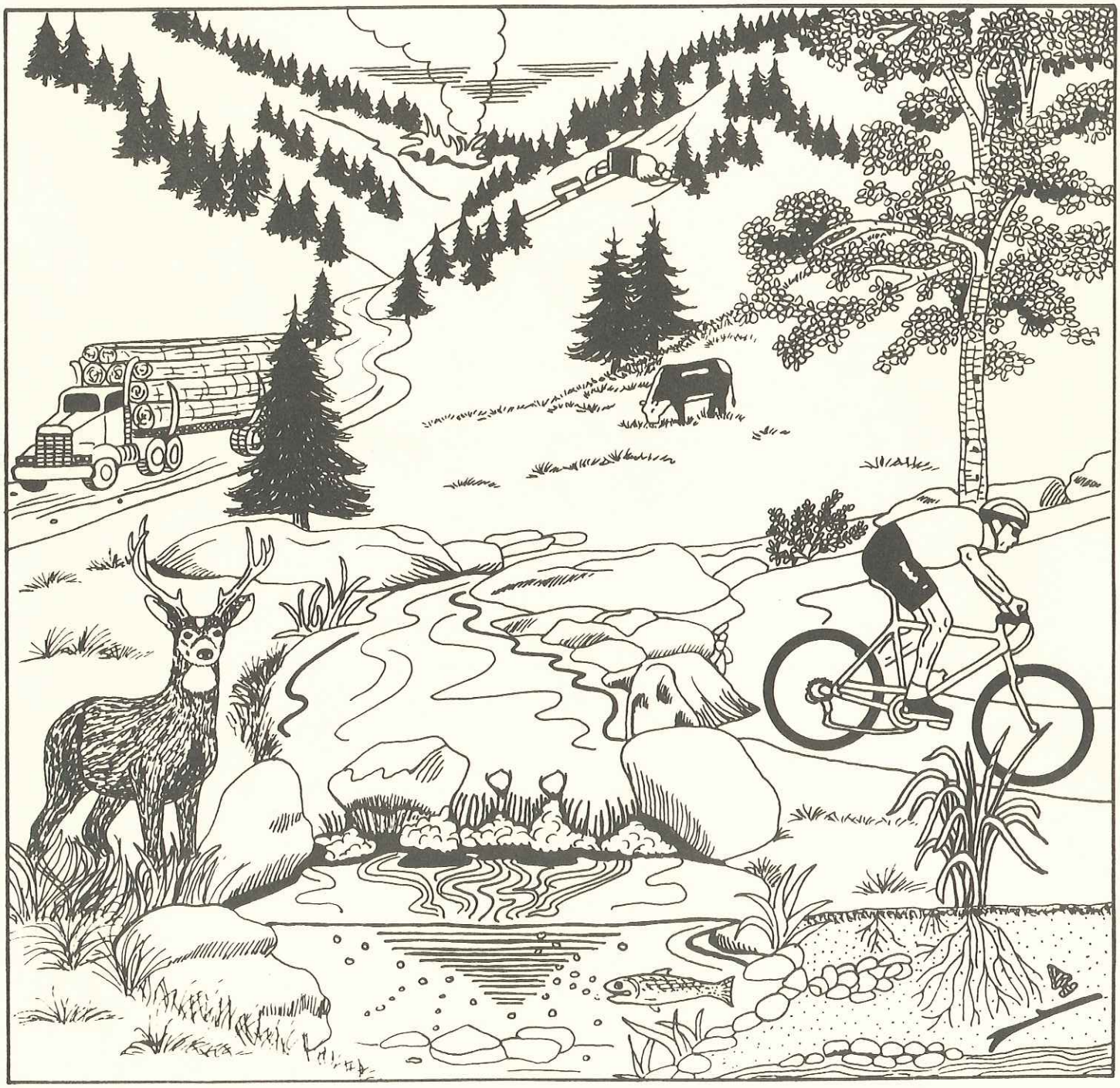
United States
Department of
Agriculture

Forest Service

Nez Perce National Forest Plan

SECOND ANNUAL MONITORING & EVALUATION REPORT



Fiscal Year 1989

INFORMATION REQUESTS/COMMENTS

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

Salmon River Ranger District
Slate Creek Ranger Station
HC01 Box 70
White Bird, ID 83554
(208) 839-2211

Clearwater Ranger District
Route 2, Box 475
Grangeville, ID 83530
(208) 983-1963

Red River Ranger District
Box 23, Red River Route
Elk City, ID 83525
(208) 842-2255

Moose Creek Ranger District
P.O. Box 464
Grangeville, ID 83530
(208) 983-2712

Selway Ranger District
HCR 1, Box 91
Kooskia, ID 83539
(208) 926-4258

Elk City Ranger District
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Nez Perce National Forest Supervisor's Office
Route 2, Box 475
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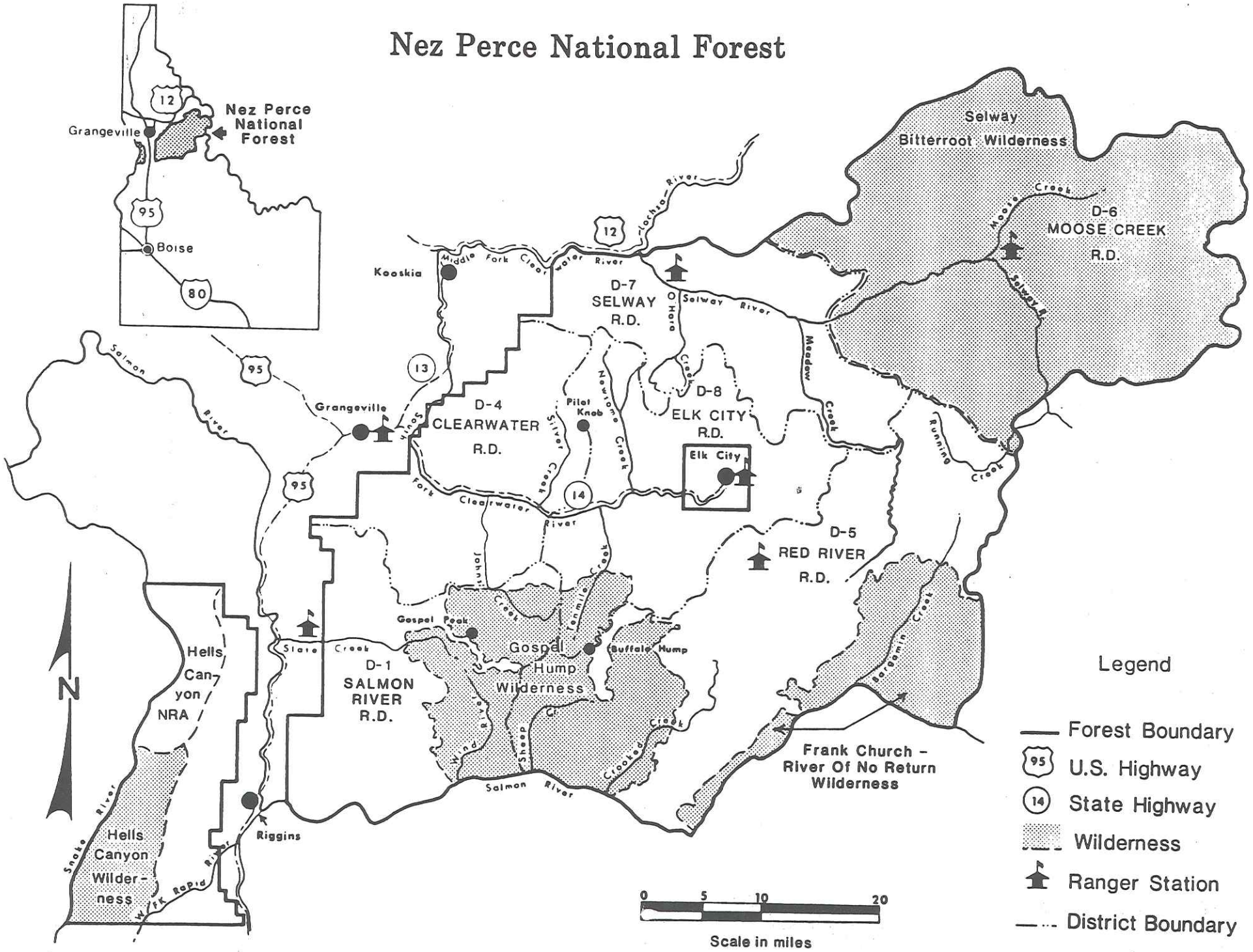
Nez Perce National Forest



From the Desk of TOM KOVALICKY, Forest Supervisor, Nez Perce National Forest

February 22, 1990

Dear Reader:

The Nez Perce National Forest Plan, released in fiscal year 1988, charts a new course for managing the Forest for the next 10 to 15 years. It is our contract with you, the people we serve, our pledge to continue to involve you as we strive to achieve a balance of multiple uses.

We invite you to review and comment on this, our second Nez Perce National Forest Annual Monitoring and Evaluation Report. This is our report on how well we are keeping our land management contract with you.

As always, we welcome you to work with us to improve our land stewardship responsibilities. Please feel free to call, visit, or write us anytime.

Cheers!

TOM KOVALICKY
Forest Supervisor

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FOREST PLAN MONITORING AND EVALUATION REPORT

NEZ PERCE NATIONAL FOREST

FISCAL YEAR 1989

I. 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. Part of the process was a commitment to monitor and evaluate how well the Forest Plan was being implemented. Monitoring and evaluation comprise the management control system, and the results of monitoring and evaluation provide the decisionmaker and the public information on the progress and results of implementing the Forest Plan.

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

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

-**Implementation Monitoring** [1] is used to determine if goals, objectives, standards, and management practices are implemented as detailed in the Forest Plan. The question being asked is, "Did we do what we said we were going to do?"

-**Effectiveness Monitoring** is used to determine if management practices as designed and executed are effective in meeting Forest Plan standards, goals, and objectives. The question being asked in this type of monitoring is, "Did the management practice do what we wanted it to do?"

-**Validation Monitoring** is used to determine whether the data, assumptions, and coefficients used in the development of the Forest Plan are correct. The question being asked here is, "is there a better way to meet Forest Plan goals and objectives?"

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. Planned actions resulting from evaluation are reported in the Planned Actions section.

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 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. Numerous informal field reviews were also conducted on a variety of projects during fiscal year 1989. 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 other projects.

This report summarizes results of Forest Plan monitoring and evaluation conducted from October 1, 1988 through September 30, 1989. This is the second year of Forest Plan implementation for the Nez Perce National Forest. Rationale is provided for the modifications, if necessary, that will be made in the Forest Plan in the form of amendments. Any changes in the Forest Plan will follow the direction outlined in Chapter V and will include appropriate public notification and completion of National Environmental Policy Act (NEPA) procedures. This report also provides a communication link with the public and other levels of Federal, State, private industry, and interest groups to document the status on implementing the Forest Plan.

This Report is organized into seven main sections following the Introduction. Section II compares outputs and services planned to those accomplished and discusses the results of monitoring each item. Section III identifies research needs. Section IV identifies recommended changes that will result in amendments if they are approved. Section V summarizes existing amendments to the Forest Plan. Section VI lists those people who contributed to the preparation of this Report. Following Section VII is the Appendix to this Report.

[1] Implementation monitoring is assumed unless otherwise specified.

II. MONITORING AND EVALUATION RESULTS AND TRENDS

A. Were Outputs and Services Provided as Predicted

Outputs will vary annually due to changing market conditions, weather, and congressional budget appropriations.

Displayed in the Forest Plan (Page II-9, Table II-1) and updated on the following page as Table 1, are average annual projections for activities and outputs. During this past year we discovered that some activities and outputs were omitted or incorrectly displayed in the Forest Plan. These oversights have been corrected and are displayed in Table 1 for fiscal years 1988 and 1989.

Activity and output projections for the remainder of the Forest Plan period (FY 1990 - 1997) are displayed in Table 2. This table replaces Forest Plan Table II-1, Page II-9.

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

In many instances, it is difficult with only one or two year's monitoring data to determine how well the Forest Plan objectives, 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 will be particularly useful during the Forest Plan five year review (i.e. FY 1992) required under the National Forest Management Act's (NFMA) implementation regulations (CFR §219.10 (g)).

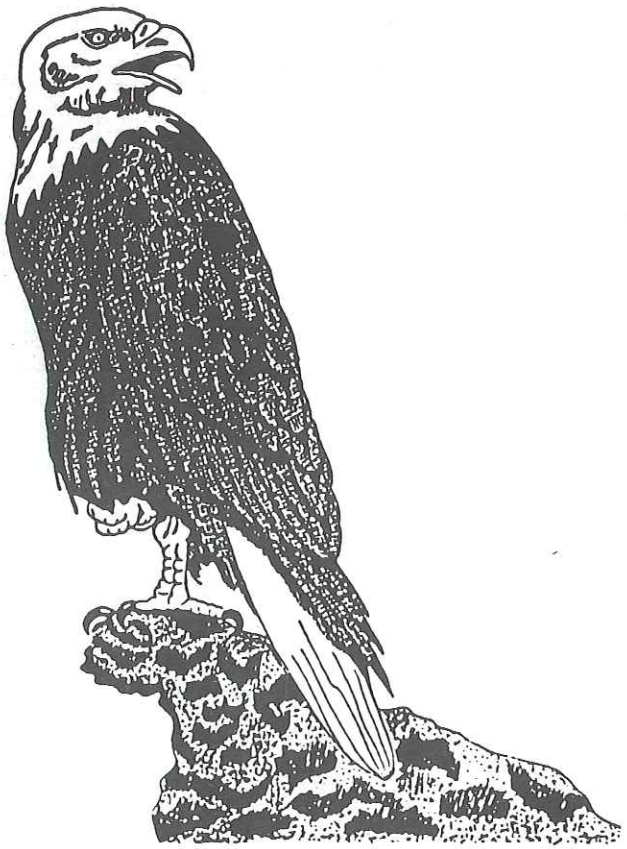


Table 1 - COMPARISON OF OUTPUTS AND ACTIVITIES WITH THOSE PROJECTED IN THE FOREST PLAN

		Fiscal Year 1988			Fiscal Year 1989		
Outputs and Activities [1]	Units [2]	Forest Plan [4]	Targets [5]	Accomplishment [6]	Forest Plan [4]	Targets [5]	Accomplishment [6]
RECREATION							
T01 Developed/Dispersed Use	PAOT Days	323,570	324,000	349,000	783,000	510,000	510,000
Cultural Resource Inventory	Acres	8,000	4,000	3,753	4,000	4,000	2,600
WILDLIFE & FISH							
Wildlife Habitat Improvement							
Non-Structural							
Excess Timber Receipts	Acres	---	0	0	---	400	400
T03 Appropriated Funds	Acres	5,000	1,000	1,020	5,000	2,800	2,800
T26 KV Funds	Acres	100	0	2,040	100	5,358	5,765
Structural							
T29 Appropriated Funds	Structures	0	0	1	0	2	1
T32 KV Funds	Structures	10	0	3	10	23	16
Fish Habitat Improvement							
Non-Structural							
Challenge Cost Share Funds	Acres	---	0	4	---	15	15
Excess Timber Receipts	Acres	---	0	0	---	50	65
T04 Appropriated Funds	Acres	50	108	104	50	40	40
T27 KV Funds	Acres	10			10	12	2
Structural							
Challenge Cost Share Funds	Structures	---	0	0	---	50	50
T30 Appropriated Funds	Structures	350	54	44	350	300	322
T33 KV Funds	Structures	5	0	21	5	110	70
T&E Species Habitat Improvement							
Non-Structural							
T05 Appropriated Funds	Acres	64	0	0	64	0	0
T34 KV Funds	Acres	0	0	0	0	0	0
Structural							
T31 Appropriated Funds	Structures	2	1	1	2	2	1
T35 KV Funds	Structures	0	0	0	0	0	0
RANGE							
T06 Permitted Grazing Use	AUM	42,000	43,000	44,000	45,000	42,000	42,000
Range Improvement							
T07 Non-Structural	Acres	25	370	0	500	0	0
T07A Structural	Structures	0	10	8	7	15	16
T08 Allotment Management Plans	Plans	5	0	0	6	0	0
T09 Noxious Weed Control	Acres	85	160	124	250	160	159
SOIL & WATER							
Soil & Water Resource Improvement							
(Excess Timber Receipts)	Acres	---	0	0	---	45	144
T10A (Appropriated Funds)	Acres	320	49	47	320	200	131
T10B (KV Funds)	Acres	25	0	45	25	0	93
T10 Soil Inventory	Acres	0	0	0	0	0	0
MINERALS							
T12 Minerals Management	Actions [3]	600	453	318	530	477	464

Outputs and Activities [1]	Units [2]	Forest Plan [4]	Targets [5]	Accomplishment [6]	Forest Plan [4]	Targets [5]	Accomplishment [6]
TIMBER							
Acres Harvested							
Clearcut	Acres	1,810	---	1,424	1,810	---	1,583
Shelterwood/Seed Tree	Acres	2,775	---	1,487	2,775	---	961
Shelterwood - Removal Cut	Acres	130	---	111	130	---	1,063
Commercial Cut/Salvage/Sanitation	Acres	225	---	185	225	---	446
Acres Sold							
Clearcut	Acres	1,810	---	2,846	1,810	---	2,133
Shelterwood/Seed Tree	Acres	2,775	---	1,552	2,775	---	731
Shelterwood - Removal Cut	Acres	130	---	1,921	130	---	374
Commercial Cut/Salvage/Sanitation	Acres	225	---	241	225	---	23
Volume Offered							
T13 Allowable Sale Quantity (Total Volume)	MMBF	106	103	109	113	108	105
T14 Allowable Sale Quantity (Salvage Volume)	MMBF	5	5	6.5	5	4	6
T14A Allowable Sale Quantity (Non-Salvage)	MMBF	90	98	95	108	104	99
T28 Advanced Prep (NEPA)	MMBF	220	220	69	165	165	113
T15 Silvicultural Exams	Acres	120,000			109,000		
(Silvicultural Exam)	Acres	---	28,000	15,000	---	30,000	34,370
(Compartment Field Exams)	Acres	---	19,000	17,000	---	25,000	23,359
Reforestation							
Planting							
T16 (Appropriated Funds)	Acres	1,610	1,227	1,180	860	975	931
T19 (KV Funds)	Acres	300	1,467	1,692	3,200	1,884	1,885
Site Prep - Natural							
T17 (Appropriated Funds)	Acres	200	0	0	80	100	132
T18 (KV Funds)	Acres	2,900	153	0	1,100	468	255
Timber Stand Improvement							
T20 (Appropriated Funds)	Acres	300	611	674	700	798	668
T21 (KV Funds)	Acres	700	222	273	300	217	365
PROTECTION							
T23 Fuels Management Activity and Natural Fuels	Acres	950	1,300	1,309	1,060	1529	1529
T44 Fuels Management-Brush Disposal	Acres	4,600	4,600	3,041	3,590	3590	4111
LANDS							
T11 Land Exchange	Acres	80	60	0	25	0	0
T11A Special Uses	Acres	121	121	121	121	133	133

Outputs and Activities [1]	Units [2]	Forest Plan [4]	Targets [5]	Accomplishment [6]	Forest Plan [4]	Targets [5]	Accomplishment [6]
FACILITIES							
T22 Landline Location	Miles	35	23	25	35	22	22
T83 Trail Construction/Reconstruction	Miles	12	25	30	34	27	27
(Excess Timber Receipts)	Miles					5	5
T84 Trail Maintenance Levels I - III	Miles	2,215			2,342		1,102
T81 Capital Investment Roads [7]	Miles	25	8	8	39	90	62
T82 Timber Purchaser Credit Roads [7]	Miles	36	92	92	63	130	127
T86 Road Maintenance							
Level I	Miles			1,084			1,937
Level 2	Miles			599			614
Level 3	Miles			618			618
Level 4	Miles			3			3
Level 5	Miles			30			30
Total	Miles		2,221	2,332	2,175		3,201
Road Construction							
Arterial	Miles	3	---	0	3	---	0
Collector	Miles	24	---	4	24	---	7
Local	Miles	26	---	49	26	---	30
TOTAL	Miles	53	---	53	53	---	37
Road Reconstruction							
Arterial	Miles	2	---	2	2	---	0
Collector	Miles	13	---	17	13	---	102
Local	Miles	15	---	30	15	---	50
TOTAL	Miles	30	---	49	30	---	152
Access Management							
Permanently Closed	Miles	33	---	77	33	---	31
Unrestricted	Miles	17	---	34	17	---	4
Restricted	Miles	33	---	32	33	---	40
TOTAL	Miles	83	---	143	83	---	75
Closure Devices							
Gates	Numbers	---	---	6	---	---	27
Concrete Barriers	Numbers	---	---	14	---	---	10
Earth Berm Barriers	Numbers	---	---	13	---	---	9

Footnotes for Table 1

[1] Northern Region coding for target and activity items.

[2] Unit Abbreviations

PAOT Days	persons at one time
MAUM	thousand animal unit months
MMBF	million board feet

[3] Includes administrative actions to process and administer operating plans, Notices of Intent, leases, and permits, as well as site-specific evaluations, hearings, and appeals.

[4] Forest Plan projection or estimates.

[5] Forest Target for this fiscal year.

[6] Actual units acccomplished during this fiscal year.

[7] FY 1989 includes proposed contract and contract award figures.

TABLE 2 - FOREST PLAN OUTPUTS AND ACTIVITIES, FY 1990 - 1997

Target Item	Output or Activity	Unit of Measure	FY 1990 Forest Plan	FY 1991 Forest Plan	FY 1992 Forest Plan	FY 1993 Forest Plan	FY 1994 Forest Plan	FY 1995 Forest Plan	FY 1996 Forest Plan	FY 1997 Forest Plan
RECREATION										
T01 (FI 09)	Developed/Dispersed Use	PAOT Days	783,000	783,000	783,000	783,000	783,000	783,000	783,000	783,000
WILDLIFE & FISH										
T03 (FI 10)	Wildlife Habitat Improvement (APP)	Acres	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
T26 (FI 28)	Wildlife Habitat Improvement (KV)	Acres	100	100	100	100	100	100	100	100
T29 (FI 10)	Wildlife Habitat Improvement (APP)	Structures	0	0	0	0	0	0	0	0
T32 (FI 28)	Wildlife Habitat Improvement (KV)	Structures	10	10	10	10	10	10	10	10
T04 (FI 10)	Fish Habitat Improvement (APP)	Acres	50	50	50	50	50	50	50	50
T27 (FI 28)	Fish Habitat Improvement (KV)	Acres	11	11	11	11	11	11	11	11
T30 (FI 10)	Fish Habitat Improvement (APP)	Structures	350	350	350	350	350	350	350	350
T33 (FI 28)	Fish Habitat Improvement (KV)	Structures	6	6	6	6	6	6	6	6
T05 (FI 10)	T&E Species Habitat Improvement (APP)	Acres	64	64	64	64	64	64	64	64
T34 (FI 10)	T&E Species Habitat Improvement (KV)	Acres	20	20	20	20	20	20	20	20
T31 (FI 10)	T&E Species Habitat Improvement (APP)	Structures	2	2	2	2	2	2	2	2
T35 (FI 10)	T&E Species Habitat Improvement (KV)	Structures	5	5	5	5	5	5	5	5
RANGE										
T06 (FI 06)	Permitted Grazing Use	MAUM	43	43	43	43	43	43	43	43
T07 (FI 32)	Range Improvement (Non-structural)	Acres	7	7	7	7	7	7	7	7
T07A (FI 32)	Range Improvement (Structural)	Structures	500	500	500	500	500	500	500	500
T08 (FI 06)	Allotment Management Plans	Plans	6	6	6	6	6	6	6	6
T09 (FI 07)	Noxious Weed Control	Acres	160	160	160	160	160	160	160	160
SOIL AND WATER										
T10 (FI 11)	Soil Inventory	Acres	40,000	25,000	25,000	25,000	100,000	200,000	250,000	316,000
T10A (FI 11)	Soil & Water Resource Improvement (APP)	Acres	200	200	200	200	200	200	200	200
T10B (FI 28)	Soil & Water Resource Improvement (KV)	Acres	25	25	25	25	25	25	25	25
LANDS										
T11 (FI 15)	Land Exchange	Acres	25	25	25	25	25	25	25	25
T11A (FI 13)	Special Uses	Acres	133	133	133	133	133	133	133	133
MINERALS										
T12 (FI 08)	Minerals Management	Actions	528	528	528	528	528	528	528	528
TIMBER										
T13 (FI 03,FI 30)	Allowable Sale Quantity (Total Volume)	MMBF	103	113	113	113	113	113	113	113
T14 (FI 30)	Allowable Sale Quantity (Salvage Volume)	MMBF	32	28	28	28	28	28	28	28
T14A (FI 03)	Allowable Sale Quantity (Non-Salvage)	MMBF	71	85	85	85	85	85	85	85
T28 (FI 03,FI 30)	Advanced Prep (NEPA)	MMBF	168	113	113	113	113	113	113	113
T15 (FI 05)	Silvicultural Exams	Acres	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000
T16 (FI 20)	Reforestation - Planting (APP)	Acres	860	860	860	860	860	860	860	860
T17 (FI 20)	Reforestation - Site Prep (APP)	Acres	80	80	80	80	80	80	80	80
T18 (FI 26)	Reforestation - Planting (KV)	Acres	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200
T19 (FI 26)	Reforestation - Site Prep (KV)	Acres	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
T20 (FI 21)	Timber Stand Improvement - (APP)	Acres	700	700	700	700	700	700	700	700
T21 (FI 27)	Timber Stand Improvement - (KV)	Acres	300	300	300	300	300	300	300	300
PROTECTION										
T23 (FI 02)	Fuels Management Activity and Natural Fuels	Acres	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060
T44 (FI 31)	Fuels Management-Brush Disposal	Acres	3,590	3,590	3,590	3,590	3,590	3,590	3,590	3,590
FACILITIES										
T22 (FI 16)	Landline Location	Miles	35	35	35	35	35	35	35	35
T83 (FI 37)	Trail Construction/Reconstruction	Miles	20	20	20	20	20	20	20	20
T84 (FI 18)	Trail Maintenance Level III	Miles	2,342	2,342	2,342	2,342	2,342	2,342	2,342	2,342
T81 (FI 36)	Capital Investment Roads	Miles	28	28	28	28	28	28	28	28
T82 (FI 38,FI 24)	Timber Purchaser Credit Roads	Miles	55	55	55	55	55	55	55	55
T86 (FI 17)	Road Maintenance	Miles	2,175	2,175	2,175	2,175	2,175	2,175	2,175	2,175

B. Are the Dollars and Manpower Costs of the Plan Implemented as Expected

Table 3 displays Forest Plan predicted average annual costs, budget allocations, and actual expenditures for fiscal years 1988 and 1989. Table 4 displays updated projected annual costs of implementation for fiscal years 1990 - 1997. This table updates Forest Plan Appendix K. Dollars have been adjusted to constant 1989 values.

Review and validation of Forest Plan program costs identified calculation errors, oversight in adequate resource coordination and support costs, additional responsibilities such as sensitive wildlife species, and increases needed as the result of field verification during implementation and monitoring. These adjustments have been made to the Forest's outyear program.

Throughout this report various types of funding are mentioned. Much of our funding is obtained directly through Congressional appropriations. Some funding sources include trust funds that include deposits made to the Forest Service by a timber purchaser to cover the cost of resource protection. Other funds are derived through partnerships with other organizations and private parties on a cost share or matching fund basis.

The following paragraphs describe these funding types.

Appropriated Funds for National Forest System Lands

These are dollars appropriated by Congress providing for the protection, management, and utilization of National Forest lands.

Range Betterment Funds

A range betterment program on National Forest lands is financed by appropriations from grazing fee receipts. Fifty percent of the grazing fee receipts are returned to the Forest to fund the installation of structural and nonstructural range improvements. These include 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 costs of labor and supplies. Oftentimes, the range permittee cooperates in these activities by supplying the labor needed to implement the improvements.

Permanent & Trust Funds

Brush Disposal (BD)
These are deposits collected from timber purchasers to dispose of brush and other debris resulting from cutting operations on timber sale areas in order to protect and maintain National Forest resources. Timber cutting usually increases the fire hazard because of the dry fuel that accumulates as logging slash. Slash may also impair reforestation, contribute to the buildup of insect populations, damage stream channels, look unsightly, and limit recreation access. BD funds are used to dispose of brush by crushing, chipping, burning or a combination of these methods. When disposal of brush and other debris from timber sale operations is necessary, timber sale contracts require treatment or deposit of funds for treatment of debris. When economical and expedient, the work is performed by the timber purchaser. The work can also be carried out by the Forest using deposits collected by the purchaser to cover costs of the work.

Timber Salvage Sales
Timber Salvage Sale funds are used for the design, engineering, and supervision of road construction for salvage sales and for sale preparation and supervision of harvesting the timber. These funds are used to salvage insect-infested, dead, damaged, or down timber, and to remove associated trees for

tree 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-Vandenburg (KV) Funds
These are funds deposited by timber purchasers used primarily for reforestation, timber stand improvement, and other resource activities to improve the future productivity of the renewable resources on timber sale areas.

Cooperative Work, Other (CWFS Other) Funds
CWFS Other funds are 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 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 road maintenance appropriation, to provide maintenance of system roads by the Forest Service.

Excess Timber Sale Receipts

These are monies that result from timber sale receipts (revenues) exceeding the amounts budgeted by Congress. Congress appropriates amounts to cover resource management costs. Occasionally revenues exceed the amount initially budgeted. Congress has then given this excess to the Forests to accomplish additional resource management projects not accomplished with the initial appropriations. Excess timber sale receipts can be used for the following programs, trail maintenance, trail construction, wildlife and fish habitat management, soil, water, and air management, cultural resource management, wilderness management, reforestation, and timber sale administration and management.

Challenge Cost Share Dollars

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

Table 3 - COMPARISON BETWEEN EXPENDITURES AND FOREST PLAN PROJECTIONS

Funding Description	Fiscal Year 1988				Fiscal Year 1989			
	Forest Plan (M 1989$)	Allocation (M 1989$)	Expenditures (M 1989$)	% of Forest Plan	Forest Plan (M 1989$)	Allocation (M 1989$)	Expenditures (M 1989$)	% of Forest Plan
GENERAL ADMINISTRATION								
00 General Administration	1,958	1,694	1,723	88	1,958	1,352	1,570	80
RECREATION								
09 Recreation	687	551	551	80	903	594	661	73
WILDLIFE & FISH								
10 Wildlife and Fish	942	670	659	70	1,120	831	859	77
RANGE								
06 Range	244	215	225	92	286	189	235	82
07 Range (Noxious Weeds)	18	16	8	44	18	17	7	39
32 Range Improvement	20	19	26	130	20	19	22	110
SOIL & WATER								
11 Soil, Air, Water	540	314	282	52	534	381	349	65
MINERALS								
08 Minerals	343	259	263	77	346	237	292	84
TIMBER								
03 Timber Sale Prep/Administration	1,790	1,387	1,426	80	1,790	1,484	1,409	79
04 Silvicultural Exams	121	216	273	226	120	140	165	138
05 Timber Planning	350	356	318	91	350	420	436	125
20 Reforestation - Appropriated	571	667	679	119	571	615	484	85
21 Timber Stand Improvement - Appropriated	72	121	166	231	152	140	99	65
23 Tree Improvement	50	42	78	156	0	59	15	---
26 KV Reforestation	1,726	582	747	43	1,288	946	1,208	94
27 KV Timber Stand Improvement	166	45	119	71	68	50	56	82
28 KV - Other	111	193	281	253	463	232	236	51
29 Co-op Work, Forest Service, Other - Trust Fund	194	184	324	167	225	179	375	168
30 Timber Salvage Sales - Permanent Fund	92	110	94	102	107	131	176	165
PROTECTION								
01 Fire Protection	1,060	1,157	1,140	108	1,531	1,227	1,035	68
02 Fire Protection (Fuels)	44	94	81	184	65	45	42	65
19 Cooperative Law Enforcement	61	36	36	59	61	41	54	89
31 Brush Disposal (Perm. Fund)	459	484	353	77	532	423	419	79

Funding Description	Forest Plan (M 1989$)	Allocation (M 1989$)	Expenditures (M 1989$)	% of Forest Plan	Forest Plan (M 1989$)	Allocation (M 1989$)	Expenditures (M 1989$)	% of Forest Plan
LANDS								
13 Special Uses	91	48	57	63	88	45	37	42
15 Land Exchange/Ownership Status	67	39	39	58	62	29	58	94
16 Landline Location	167	120	127	76	167	110	86	52
43 Land Acquisition	11	37	22	200	8	14	589	7,363
FACILITIES								
12 Facility Maintenance	221	179	185	84	221	144	143	65
17 Road Maintenance [1]	711	623	978	138	711	1,034	1,023	144
18 Trail Maintenance	351	474	442	126	556	423	401	72
33 Recreation Construction	74	66	59	80	139	147	123	89
34 Facility Construction - Forest Admin.,Other	148	8	46	31	147	7	1	1
35 Engineering Construction Support	1,914	1,324	1,336	70	1,926	1,461	1,505	78
36 Construction--Capital Investment Roads	2,750	504	504	18	2,749	3,965	1,057	39
37 Trail Construction/Reconstruction	222	329	328	148	379	311	264	70
38 Timber Purchaser Road Construction	1,983	3,409	2,537	128	2,493	2,852	2,515	101
TOTAL	20,329	16,572	16,512	81	22,154	20,294	18,006	81

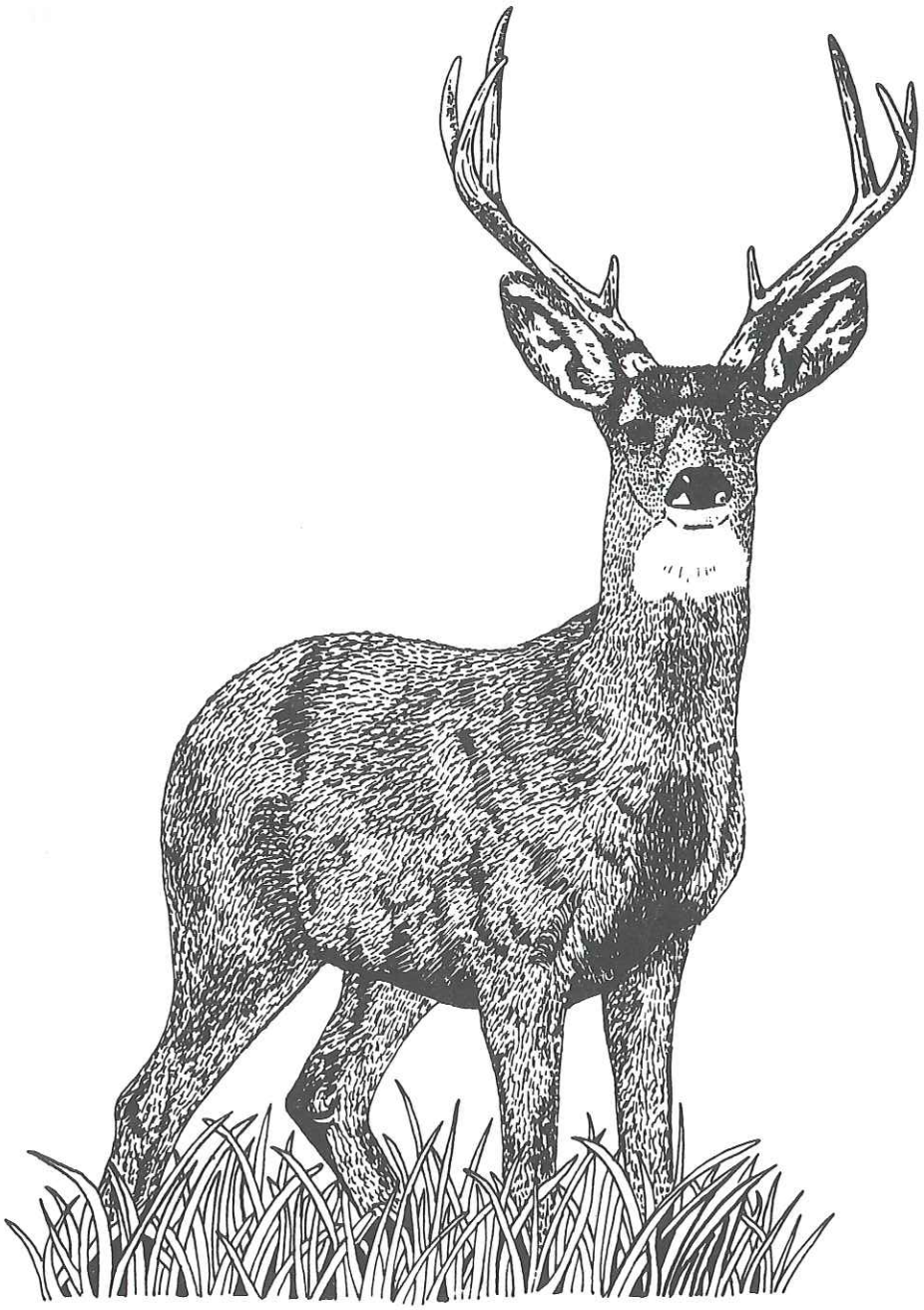
[1] Road Maintenance expenditures include 402.7 M$ (FY 1988) and 474.5 M$ (FY 1989) for Capital Construction (Restoration - Heavy Maintenance).

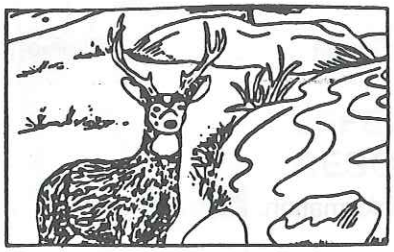
TABLE 4 - FOREST PLAN FUNDING NEEDS, FY 1990 - FY 1997

Funding Item	Description	FY 1990 Forest Plan (M 1989$)	FY 1991 Forest Plan (M 1989$)	FY 1992 Forest Plan (M 1989$)	FY 1993 Forest Plan (M 1989$)	FY 1994 - 1997 Forest Plan (M 1989$)
GENERAL ADMINISTRATION						
00	General Administration	1,932	1,932	1,932	1,932	1,932
RECREATION						
09 (T01)	Recreation	1,051	1,051	1,068	1,073	1,073
WILDLIFE & FISH						
10 (T03,T04,T05,T29, T30,T31,T34,T35)	Wildlife and Fish	1,343	1,322	1,322	1,322	1,322
RANGE						
06 (T06)	Range	326	322	322	322	322
07 (T09)	Range (Noxious Weeds)	35	35	35	35	35
32 (T07,T07A)	Range Improvement	22	22	22	22	22
SOIL & WATER						
11 (T10,T10A)	Soil, Air, Water	686	686	686	686	686
MINERALS						
08 (T12)	Minerals	390	389	389	389	389
TIMBER						
03 (T13,T14A,T28)	Timber Sale Prep/Admin	1,960	2,050	2,100	2,200	2,200
04	Timber Planning	165	165	165	165	165
05 (T15)	Silvicultural Exams	552	462	462	462	462
20 (T16,T17)	Reforestation-Appropriated	564	564	564	564	564
21 (T20)	Timber Stand Improvement - Appropriated	150	150	150	150	150
23	Tree Improvement	49	49	49	49	49
26 (T18,T19)	KV Reforestation	1,222	1,222	1,222	1,222	1,222
27 (T21)	KV Timber Stand Improvement	65	65	65	65	65
28 (T26,T27,T32,T33)	KV - Other	483	483	483	483	483
29	Co-op Work,Forest Service,Other	209	209	209	209	209
30 (T13,T14,T28)	Timber Salvage Sales	300	625	625	625	625
PROTECTION						
01	Fire Protection	1,781	1,781	1,781	1,781	1,781
02 (T23)	Fire Protection (Fuels)	90	90	90	90	90
19	Cooperative Law Enforcement	60	60	60	60	60
31 (T44)	Brush Disposal (Perm. Fund)	505	505	505	505	505
LANDS						
13 (T11A)	Special Uses	86	86	86	86	86
15 (T11)	Land Exchange/Ownership Status	67	67	67	67	67
16 (T22)	Landline Location	165	165	165	165	165
43	Land Acquisition	23	23	23	23	23
FACILITIES						
12	Facility Maintenance	218	218	218	218	218
17 (T86)	Road Maintenance	850	850	850	850	850
18 (T84)	Trail Maintenance	549	549	549	549	549
33	Recreation Construction	132	132	132	132	132
34	Facility Construction - Forest Admin.,Other	0	291	201	233	0
35	Engineering Construction Support	1,706	1,809	1,848	1,848	1,848
36 (T81)	Construction--Capital Investment Roads	2,609	2,609	2,609	2,609	2,609
37 (T83)	Trail Construction/Reconstruction	600	600	600	600	600
38 (T82)	Timber Purchaser Road Construction	2,366	2,366	2,366	2,366	2,366
	TOTAL	23,311	24,004	24,020	24,157	23,924

C. Forest Plan Monitoring Requirements

The results of monitoring and evaluation have been summarized and are 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).





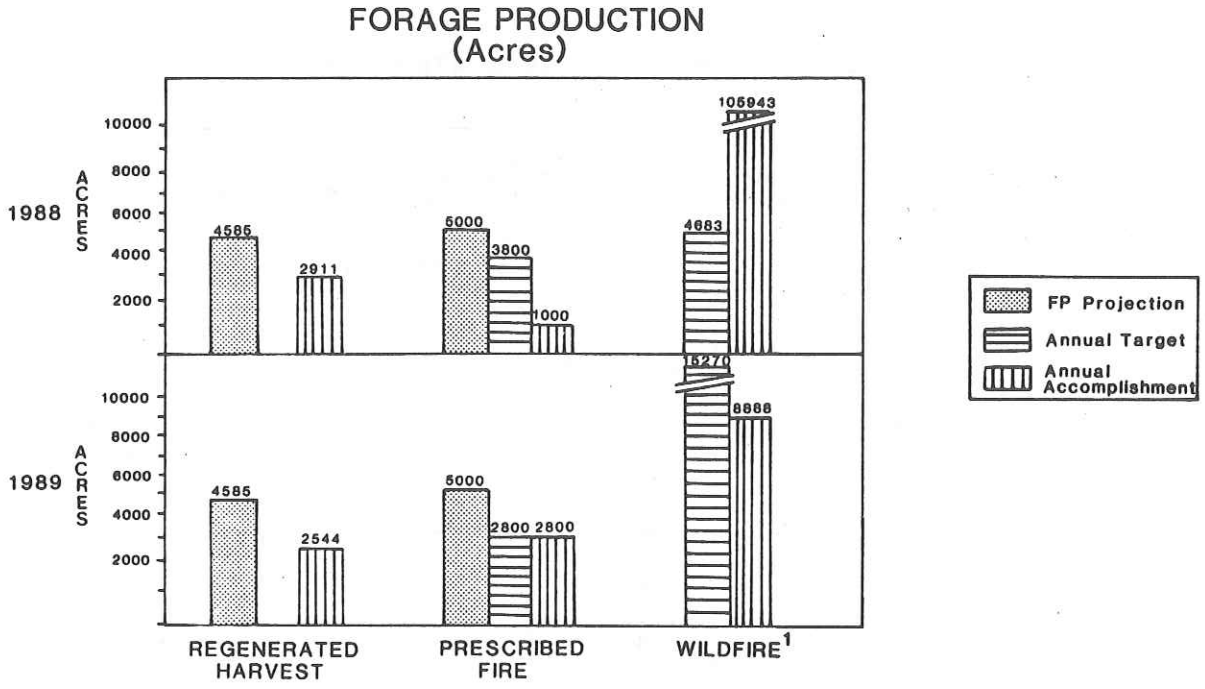
WILDLIFE

Item 1c:	Big-Game Habitat Carrying Capacity
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	5 years (FY 1992)
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:

Acres of harvest, acres burned by prescribed fire, and acres burned by wildfire are used as indices of forage production. Each of these variables is given for the Forest Plan projection, the fiscal year 1989 target, and FY 89 accomplishments in the following graph. FY 88 projections, targets and accomplishments are also shown for comparison.



[1]The values given for FY 88 and FY 89 wildfire targets are not really targets, given the unpredictable nature of wildfire, but reflect a 10-year average of wildfire acreage. This value is updated each year.

Forage production/condition surveys were conducted for the Silver Cougar analysis. No conclusions are yet available from this area.

Evaluation of Monitoring Results:

A minimum of 5 years of data are necessary to evaluate the trend information. No trend analysis will be possible until 1992.

Summer Elk Habitat

Monitoring Results:

Implementation Monitoring: There were a total of 56 project activities Forestwide involving summer elk habitat areas, including ongoing projects initiated prior to implementation of the Forest Plan. "Guidelines for Evaluating and Managing Elk Habitat in Northern Idaho" was used as a tool to evaluate whether or not objectives were met for 77 percent of the projects. The guidelines were not used for evaluating some mining activities and for projects initiated prior to the availability of the guidelines. However, timber harvest projects initiated in FY 88 and FY 89 did use the guidelines. Actual project implementation for cutting units and road location was consistent with the preferred alternative displayed in the NEPA document for all of the ongoing timber harvest activities. Big game calving/fawning area objectives were implemented for all applicable projects. Access management guidelines have been followed in 61 percent of the projects. Failure to follow the guidelines generally occurred in those projects begun before the guidelines were implemented.

Elk model runs for each timber sale decision signed in FY 89 were made for each alternative during the planning and design phase of timber sale projects on summer range. Analysis rules for using the North Idaho Elk Guidelines limit the acreage size of a given analysis. Individual assessment evaluation areas are delineated and numbered for assessment and monitoring purposes. Results for each evaluation area are shown below.

RESULTS OF TIMBER SALE EVALUATION AREAS

FY 89 Timber Project/Sale Name	Summer Elk Objective (%)								Preharvest Level of Elk Habitat Effectiveness (%)								Level of Elk Effectiveness Under Selected Alternative (%)							
	1/ Evaluation Area								Evaluation Area								Evaluation Area							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Baboon Gulch	25								64								52							
No Business 2/	25																41							
China Cow 3/	50								17								26							
Rimrock 4/	25	25							30	39							30	39						
Clear Creek 5/	50	50	50						89	59	44						71	56	57					
N.F.Red River	50	50	50	50					58	49	66	74					52	49	66	74				
South Fork	75	75	75	50					55	76	87	51					75	73	75	53				
Flint Cr & East Fork American	50	75	50	50	75	75			61	74	78	45	74	68			57	74	62	49	74	70		
Wing Creek-Twentymile	50	50	50	50	50	75	50	75	87	55	87	75	95	76	63	89	58	55	71	65	95	76	54	79

[1] Numbers one through eight correspond to an evaluation area.

[2] Decision signed in 1983. The sale was reevaluated in 1989 because of changes in sale layout and the elk model had been updated. Value for Level of Elk Effectiveness Under Selected Alternative assumes roads remain open. Value increases to 49 percent if roads are closed.

[3] Decision signed in 1984. Sale was redesigned and reevaluated in 1989 because Level of Elk Effectiveness Under Selected Alternative was below summer elk objective (50 percent). Original Level of Elk Effectiveness was 39 percent north and 45 percent south.

[4] Results for Level of Elk Effectiveness Under Selected Alternative are described in the EA as "elk habitat potential objective would be met under the preferred alternative". The values shown are from the Project file.

[5] "Results for Level of Elk Effectiveness Under Selected Alternative" are from Chpt 2, pg 25 of EA. Chpt 4, pg 79 lists a different set of values, i.e., 88 56 53.

Effectiveness Monitoring: Forest Service personnel will randomly select half of the Forests land disturbing activities for evaluation of elk habitat effectiveness to see if the elk habitat effectiveness projected in the environmental analysis is achieved. Results of this monitoring will be reported annually beginning in FY90 when projects initiated under the Forest Plan are first expected to be completed.

Evaluation of Monitoring Results:

Compliance with summer elk objectives has been good for those timber sale decisions signed during FY 89. Forestwide, the level of elk effectiveness under the preferred alternative exceeded the summer elk objective by an average of 6.6 percentage points (8.9 percentage points if the two sales reevaluated in 1989 are included)

There were seven instances when the elk effectiveness rating under the preferred alternative was numerically less than the summer elk objective. However, four of these cases involved a difference of 1 percentage point and one case of a 2 percentage point difference from the objective; these are considered to still meet the summer elk objectives, given the expected variability of the elk model. The deviation of 5 percentage points was noted and addressed in the Flint Creek and East Fork American Environmental Assessments (EA): "Interpretive variability of the model can vary by as much 5 percent. Based on the elk models assumptions, the access coefficients, knowledge of the area and the District wildlife biologists' professional judgment, the intent of the objectives are being met. Timber sales will occur only along the west and northwest boundary of this evaluation area and the timber access road will be open only to snowmobiles. Therefore, the security needs for elk in this area are expected to be met." China Cow did not meet the elk objective, despite revising the sale layout (dropped 10 units and reduced sale by 8.2 mbf) and closing several additional roads, because of previous intensive timber harvest in the area and it was practically impossible to close other roads that are now used as major transportation routes.

Moose Winter Range

Monitoring Results:

Decisions were signed for five timber sale activities in FY 89 that involved moose winter range. Six moose winter habitat complexes totalling 2804 acres were identified within the Wing Creek-Twentymile analysis area. Thirty-four acres (<2 percent) of moose winter range are proposed for harvest under the selected alternative. Over 6525 acres of Pacific yew moose winter range was identified in the Clear Creek Environmental Analysis (EA), of which 112 acres (<2 percent) were scheduled for harvest under the preferred alternative. The Flint Creek and East Fork American timber sale verified 485 acres of moose winter range were present. No management activities were proposed in this habitat area. The presence of Pacific yew

moose winter range was noted in the South Fork EA and the North Fork Red River EA, but in both instances, management activity was not to take place in this habitat type.

Evaluation of Monitoring Results:

Forestwide, the 5-percent-per-decade guideline and other moose winter range management guidelines continue to be met for projects initiated under the Forest Plan. Some concern was expressed that the dependence of moose on Pacific yew for winter range may be overstated in the Forest Plan for some areas of the Forest. A common observation was that some areas of the Forest have no Pacific yew, but do have a notable moose population. Because moose use the same winter habitat used by elk in these areas, it is assumed that meeting the elk objectives will also meet the moose's habitat needs.

Item 1d:	**Nongame Habitat**
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
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

Monitoring Results:

A total of 39 project activities, that were initiated in FY 89 or were ongoing from previous years, involved old-growth habitat. In all cases, there was no timber harvest scheduled in allocated old growth stands until decade 10 and/or in replacement stands until decade 16. Protection of old-growth areas from firewood cutting were evaluated in NEPA documents for 45 percent of the projects.

Evaluation of Monitoring Results:

Compliance with the old-growth standards continues to be very good.

Snag Habitats

Monitoring Results:

There were a total of 52 projects, initiated in FY 89 or were ongoing from previous years, where snag management standards were applicable, of which 83 percent identified measures needed to protect existing snags and replacement trees in cutting units. Non-merchantable snags were left in addition to replacement snags and snags needed to meet the snag management objectives in nine projects. The quality, amount and distribution of snags within a project area boundary were inspected or verified for 15 projects during project planning.

Evaluation of Monitoring Results:

Monitoring results show that the amount of effort given to verification of quality, amount, and distribution of snags during project planning varies greatly across the Forest. There is also a great deal of variability in the quality of snags left in a sale area and problems still exist with identification of snags/replacement snags. A snag workshop held in February 1989 resulted in a snag planning/marking guide being released

for use in October 1989. The guide will be implemented during FY 90. Broadcast burning of clearcuts is still resulting in loss of some existing snags within clearcut areas. Voluntary cooperation from contractors having sales that took place prior to the implementation of the guidelines has resulted in some retainment of snags in these areas.

Threatened and Endangered Species Habitats

Monitoring Results:

The protection of Threatened and Endangered species was evaluated in the NEPA document through the biological evaluation or opinion for all FY 89 projects. There are currently no known active bald eagle or peregrine falcon nests on the Forest. The Forest provides significant winter habitat for bald eagles along the major river corridors. Forest personnel assisted in the National Wildlife Federation's annual Bald Eagle survey.

The Forest accomplished several inventories through challenge cost-share agreements with the Idaho Natural Heritage Program. These included the following species: Idaho douglasia (Douglasia idahoensis), Tall swamp onion (Allium validum) and Crinkle awn fescue (Festuca subliflora). In addition monitoring and inventory for the following species were completed through contracting: Broad fruit mariposa lily (Calochortus nitidus), Bank monkeyflower (Mimulous clivacola), Payson's milkvetch (Astragalus paysonii), California sedge (Carex californica) and Dasynotus (Dasynotus daubenmirei).

Project clearances were also completed for Idaho Douglasia (road reconstruction, trailhead construction and trail relocation), Bank monkeyflower (road reconstruction) and Payson's milvetch (timber sale).

Evaluation of Monitoring Results:

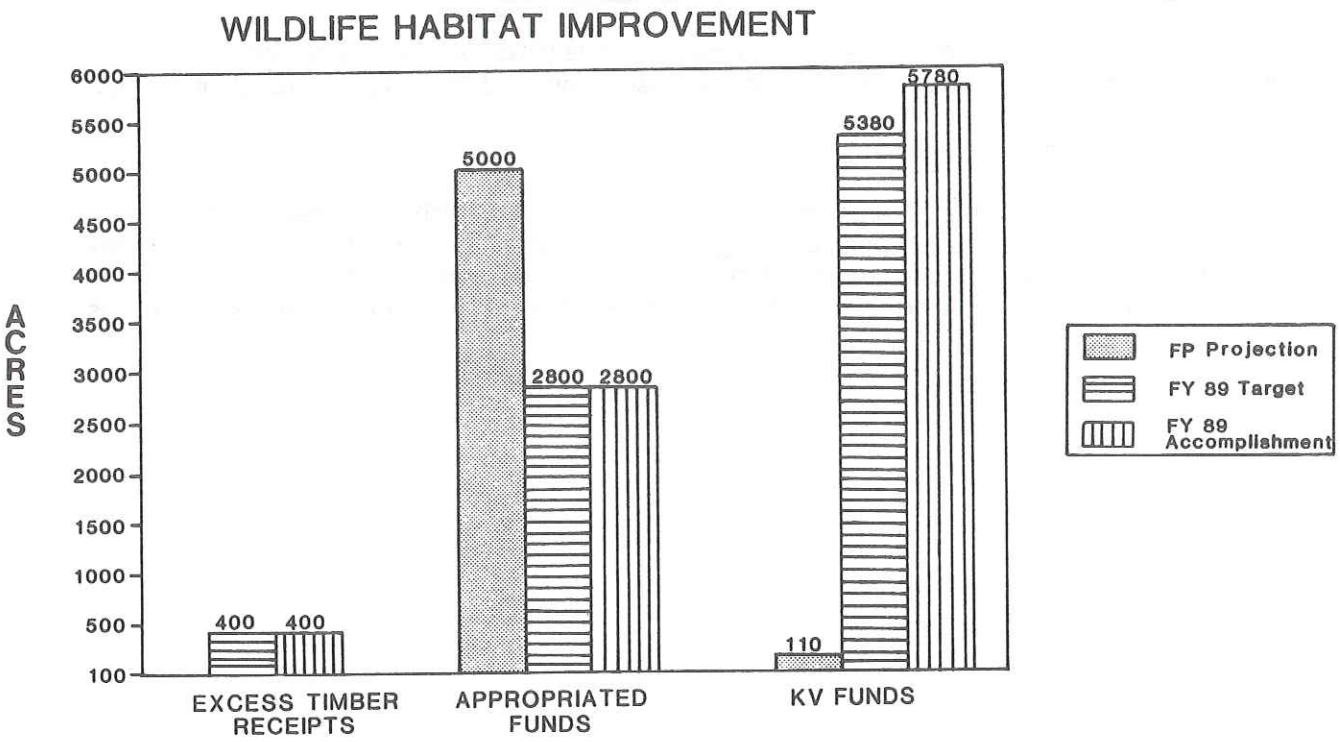
Monitoring results show that no projects were approved in FY 89 which would result in deterioration of habitats for the gray wolf, grizzly bear, bald eagle, or peregrine falcon. A question was raised whether or not T&E regulations apply to fire control decisions on the Moose Creek District. It may be that the Forest could be considered in violation of Section 7 of the T&E Act under current fire suppression actions.

Item 1e:	Acres of Big-Game Habitat Improvement
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
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:

The number of acres burned with prescribed fires is shown below for each funding source.



Evaluation of Monitoring Results:

The combined Forest Plan projection for prescribed fire for FY 88 and FY 89 is 10,000 acres, therefore, the Forest is currently 6200 acres behind using appropriated funds. If the Forest falls more than 8000 acres behind on planned winter range burn acreage, then the process will explore, evaluate, and recommend alternative ways to achieve compensatory winter range forage improvement. If no satisfactory alternatives are found, the previous burn accomplishment records will be reviewed and the Forest Plan objective of 5000 acres/year will be amended proportionally downward.

Presently, it appears that additional funding sources (KV funds) are providing enough additional winter range forage improvements to meet Forest guidelines. However, the number of acres shown for other funding sources involve fertilization of winter range in lieu of burning. The relative effectiveness of fertilization compared to burning has not yet been determined.

Suggestions were made that prescribed fire projects need additional studies to verify that the burns are beneficial to wildlife. Site-specific data for pre-project analyses are not currently available and make it impossible to make "before and after" comparisons.

Item 10:	Population Trends of Indicator Species--Wildlife
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	3 to 5 years (FY 1990 to 1992)
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, inexact, or nonexistent can only be determined after sufficient baseline population data is collected. Except possibly for big-game and some T&E species, several years of population data must be collected before variability thresholds can realistically be determined.

Elk

Monitoring Results:

Hunt Units 19 and 20 were surveyed by Idaho Department of Fish and Game (IDFG) personnel, using the "Elk Sightability" method developed by the IDFG. Results are listed below:

Unit No.	Population estimated by sightability
Unit 19	1,467 +/- 37
Unit 20	1,044 +/- 48
Unit16A*	1,028 +/- 261

*1988 data correction: Unit 16A was incorrectly listed as having a population estimate of 2,814 +/- 261 in the 1988 Annual Monitoring Report.

Evaluation of Monitoring Results:

Despite modest financial assistance from the Forest, insufficient funding prevents IDFG personnel from surveying the same hunting units every year. Therefore, it will require several years to obtain enough data to determine elk population trends in each hunting unit. Elk populations appear to be stable Forestwide, although some concerns have been expressed regarding the reduction of bulls in the herd, as a result of hunting pressure.

Moose

Monitoring Results:

Moose populations are surveyed by the Idaho Department of Fish and Game coincidentally with winter range counts of elk, deer, and other ungulates. Six and three moose were seen in Units 19 and 20, respectively. Moose continue to be seen in areas where they were absent before.

Evaluation of Monitoring Results:

Limited information suggests that moose populations are growing slowly across the Forest.

Bighorn Sheep

Monitoring Results:

Bighorn sheep populations are surveyed by the Idaho Department of Fish and Game coincidentally with winter range counts of elk, deer, and other ungulates. Ninety-one and 152 bighorn sheep were counted in Units 19 and 20, respectively. Twenty-nine bighorn sheep were reintroduced into the Selway-Bitterroot Wilderness during January 1989 as part of an attempt to reestablish bighorn sheep into areas where they occurred historically.

Evaluation of Monitoring Results:

Limited information suggests that bighorn sheep populations are remaining relatively stable across the Forest.

Gray Wolf

Monitoring Results:

Population monitoring is based on sighting and vocalization reports categorized as "probable". The Idaho Natural Heritage Program (INHP) data base listed 11 such reports for the Forest in 1988. Eight sighting and vocalization reports were listed for 1989, plus five reports of probable wolf tracks.

Evaluation of Monitoring Results:

The results of monitoring are **scheduled to be fully evaluated in the Monitoring and Evaluation Report for fiscal years 1990 to 1992.**

Grizzly Bear

Monitoring Results:

One grizzly bear track was located on the Bitterroot NF within 1/4 mile of the Nez Perce NF boundary. (Source: Idaho Natural Heritage Program [INHP] data base).

Evaluation of Monitoring Results:

The results of monitoring are **scheduled to be fully evaluated in the Monitoring and Evaluation Report for fiscal years 1990 to 1992.**

Peregrine Falcon

Monitoring Results:

One peregrine falcon was sighted on the Selway District, July 24, 1989, near the junction of Falls Point Road and Road 9720. Five birds were successfully hacked from the Graves Point Lookout site on the Salmon River Ranger District. The proposed Pilot Knob area hack site was not used because of difficulties bringing birds into the country from Canada. Arrangements were made to use birds from a breeder in Canada, but the breeder provided inadequate subspecies documentation to U.S. Fish and Wildlife personnel and the birds were therefore not allowed to enter the western United States. Another attempt to establish a Pilot Knob area hack site will be made in FY 90.

Evaluation of Monitoring Results:

The results of monitoring are **scheduled to be fully evaluated in the Monitoring and Evaluation Report for fiscal years 1990 to 1992.**

Bald Eagle

Monitoring Results:

No nests have been discovered on the Forest. Most bald eagle occurrence on the Forest is during the winter months. Three FY 89 winter survey routes within or along the perimeter of the Forest yielded six mature and three immature birds. Transects sampled and the yearly counts from 1983-1984 and 1986-1989 are shown below.

	YEAR	83	84	86	87	88	89
Salmon River: White Bird-Vinegar Cr.	Adult	1	1	2	1	2	2
	immature	0	0	0	0	1	0
S.F. Clearwater: Farrens Cr-Crooked R	Adult	1	3	0	1	2	0
	immature	0	1	0	0	0	0
M.F. Clearwater: Clear Cr-Selway	Adult	5	9	6	5	10	4
	immature	1	0	2	2	2	3
	Total	8	14	10	9	17	9

Survey efforts are a part of the National Wildlife Federation's Annual Bald Eagle Winter Survey, in which district biologists take part.

Evaluation of Monitoring Results:

Bald eagle populations appear to be relatively stable during the winter.

Pileated Woodpecker

Monitoring Results:

A total of 12 miles of survey route were sampled using five look/listen transects during May. A variety of old-growth habitat types and elevations, including sites both adjacent to clearcuts and those in unharvested areas, were included in the survey route. Pileated woodpeckers and all other breeding birds were censused by contract. A summary of 2 years of data shows that nine pileated woodpeckers were counted

in the 1988 and nine in the 1989 surveys. The most common species during the surveys were American robin, red-breasted nuthatch, MacGillivray's warbler, Townsend's warbler, black-capped chickadee and dark-eyed junco. Ten different cavity-nesting species were documented. Early seral (brush, burns, harvested unit) users included warbling vireo, MacGillivray's warbler, orange-crowned warbler, chipping sparrow, lazuli bunting, and blue grouse.

Evaluation of Monitoring Results:

The results of monitoring are **scheduled to be fully evaluated in the Monitoring and Evaluation Report for fiscal years 1990 to 1992.**

Pine Marten/Fisher

Monitoring Results:

Four track count survey routes for fishers and pine marten, totalling 66 miles, were established during 1989. Twenty-one sets of tracks were counted on 94 miles of trail (one route was done twice), although one animal is thought to have crossed a route twice and was thus counted twice. Results are combined for fishers and pine martens because of the difficulty in differentiating between the two in snow conditions. One set of wolverine tracks was also seen. A survey route of 20 miles will be added for FY 90. A draft report of a cooperatively funded study for fisher on the Forest is available through the Supervisor's Office.

Evaluation of Monitoring Results:

The results of monitoring are **scheduled to be fully evaluated in the Monitoring and Evaluation Report for fiscal years 1990 to 1992.**

Goshawk

Monitoring Results:

No population monitoring data for active nest territories has been collected to date. This is due to a combination of factors, including difficulty in locating nests, lack of suitable habitat (old growth with open understories) in many areas of the forest, and a lack of adequate funding for monitoring this species.

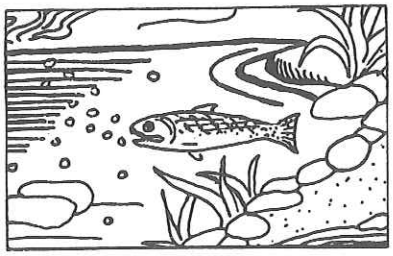
Evaluation of Monitoring Results:

The results of monitoring are **scheduled to be fully evaluated in the Monitoring and Evaluation Report for fiscal years 1990 to 1992.**

Item 11:	Validation of Resource Prediction Models: Wildlife
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	2 to 5 years (FY 1989 to 1992)
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. Local biologist judgment and experience is currently being used to supplement and temper the elk guidelines model in specific management situations as recommended in the guidelines.

Discussion:

The Forest is participating in the development of a study plan to validate and, if needed, refine the North Idaho elk effectiveness model. The study plan will review applicable, ongoing elk research in northern Idaho. Model changes and refinements will be incorporated into the Nez Perce Forest version of the elk effectiveness model, and the amended version of the model will be used in future Forest planning. Biologists from the Clearwater NF are currently taking the lead in coordinating a study designed to validate the model. The Forest intends to become involved in this study to the extent that funding levels allow.



FISH

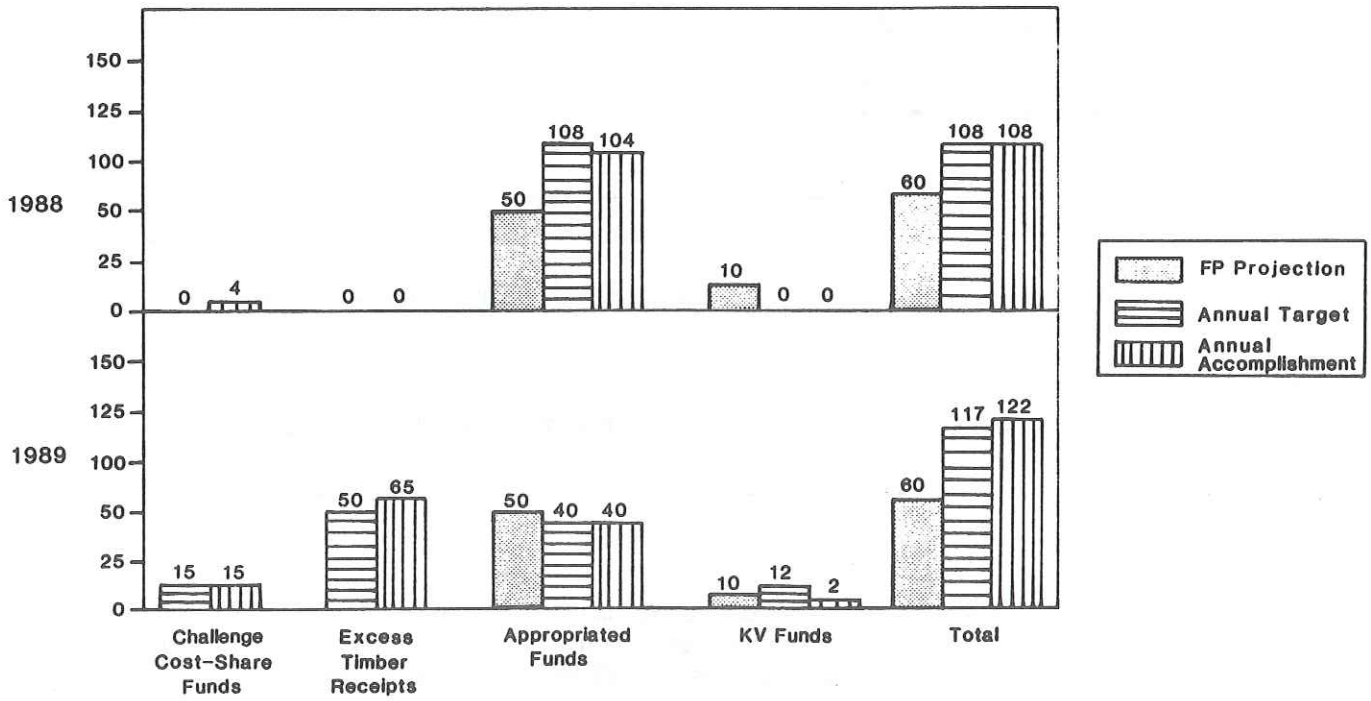
Item 1f:	Acres/Number Fish Habitat Improvements
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	Annually
Variability Which Would Initiate Further Evaluation:	+/- 10% of Plan targets within a decade.

Monitoring Results:

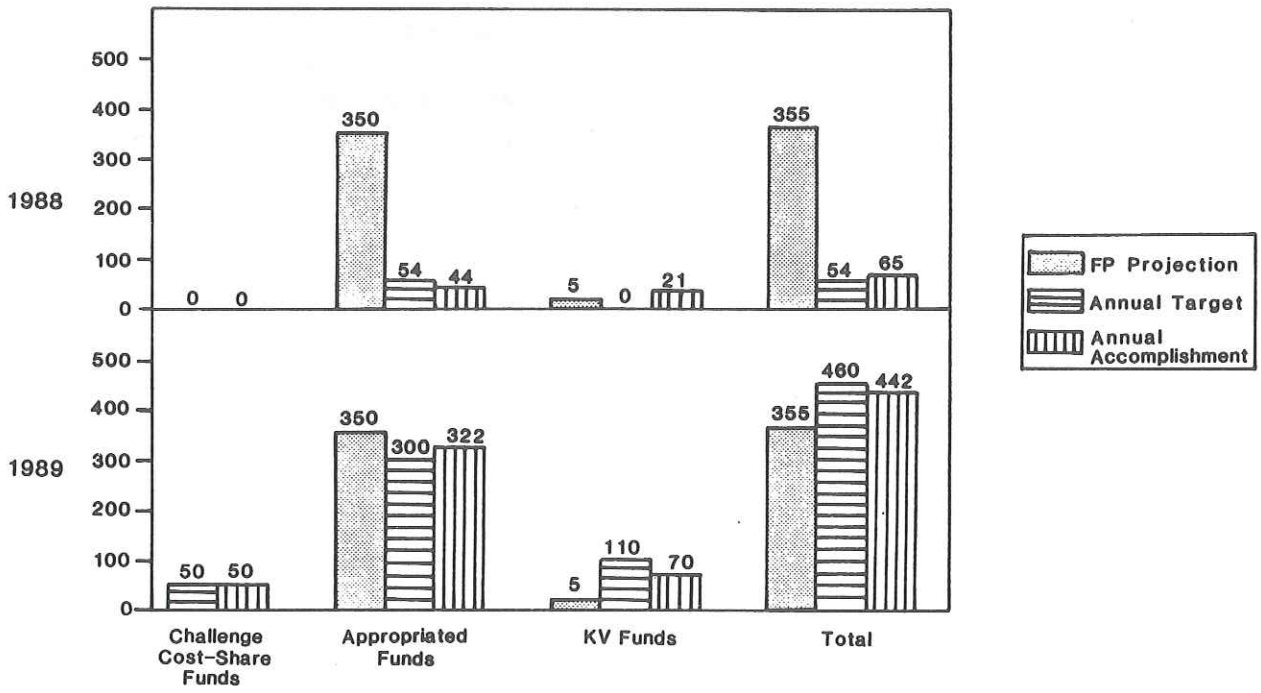
Number of fish habitat structures and acres of habitat improvement are used to report habitat improvements. Fish habitat structures include structures used to provide fish cover, feeding, and rearing habitat (e.g., log check dams), to improve fish habitat by reducing bank or channel erosion (e.g., gabions and log deflectors), and to allow fish passage (e.g., fish ladders). Acres of habitat improvement refers to nonstructural habitat improvements that benefit fish. This includes the improvement or establishment of spawning and rearing habitat through gravel placement or cleaning, stream bank stabilization, riparian vegetation restoration, and the number of acres of fish habitat made available to fish by removal of barriers to fish movement.

The Forest accomplished 322 structures and 40 acres of direct habitat improvements using appropriated funds for fiscal year 1989. This amounts to 92 percent and 80 percent of Forest Plan projections for structures and acres, respectively. Funding from additional sources accounted for an additional 90 structures and 82 acres of habitat improvement. This work brings the Forest total to 442 structures and 122 acres, which is 125 percent and 203 percent of Forest Plan projections and 96 percent and 104 percent of FY 89 targets for structures and acres, respectively. The number of structures and the number of acres accomplished in FY 89 are shown for each funding source in the graphs on the following page.

Number of Acres of Fish/Habitat Improvement



Number of Fish Habitat Improvement Structures

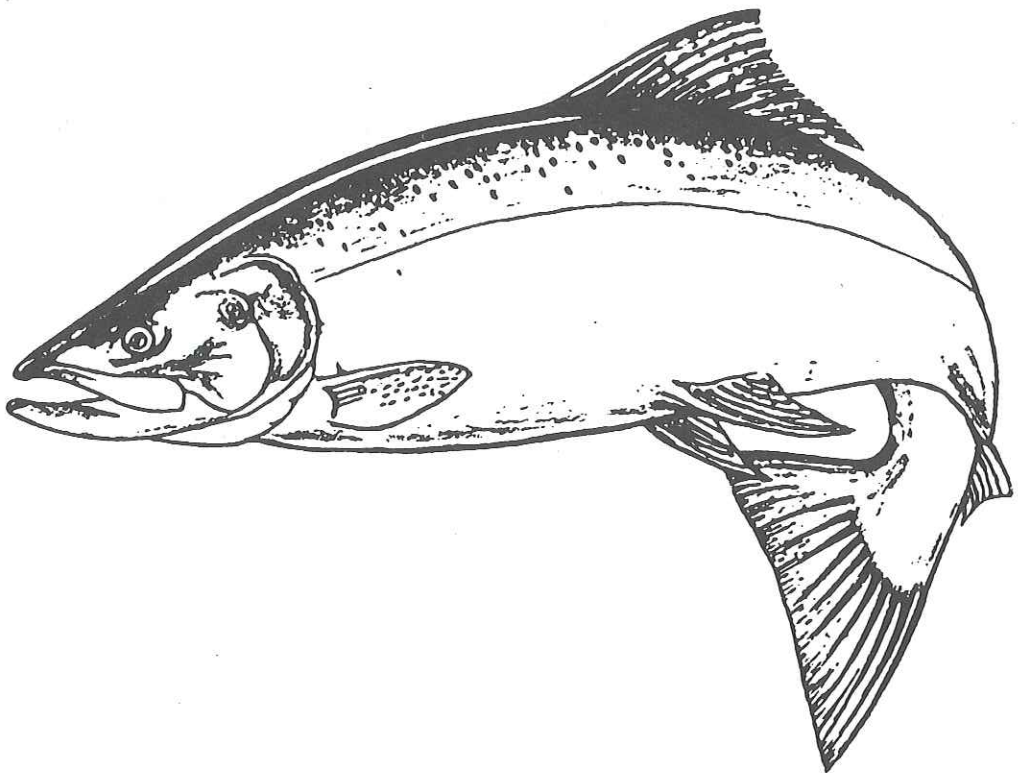


Evaluation of Monitoring Results:

The combined total Forest Plan projection for FY 88 and FY 89 was 710 structures and 120 acres. Appropriated funds were used to accomplish 366 structures (51 percent of the Forest Plan) and 144 acres (120 percent of the Forest Plan projection) for FY 88 and FY 89 combined. Plan objectives were not accomplished due to lack of funds appropriated for this management function. Funding from additional sources accomplished an additional 141 structures (20 percent of the Forest Plan) and 86 acres (72 percent of the Forest Plan). Funding from all sources accomplished 72 percent of structures and 192 percent of acres of the combined FY 88 and FY 89 Forest Plan projection.

An inconsistency in reporting fish habitat improvements accomplished using Bonneville Power Administration funds, and problems identifying the cost of individual projects (only the total program budget is being tracked now) were identified while writing this report. Therefore, beginning in 1990, Districts will be requested to show the costs of habitat improvements for both structures and acres of stream improvement for each project. This will allow better tracking of costs associated with habitat improvements.

No field monitoring was done in 1989 to confirm that habitat improvements improved stream habitats to the stated objectives because of insufficient funding levels and time constraints. The response of fish populations to habitat improvement structures is currently being evaluated at Crooked River. Results of this study will be presented in 1990. Concerns were expressed that the Forest also needs to evaluate whether increased fishing pressure occurs at habitat improvement structures, and if so, the impacts to fish populations.



Item 2e:	Fish Habitat Trends by Drainage
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	1 to 5 years (FY 1988 to 1992)
Variability Which Would Initiate Further Evaluation:	A measured decrease of 10% or more below established objectives

Monitoring Results:

A minimum of five years of data are necessary in order to establish baseline habitat conditions and determine relative change in condition at the permanent monitoring stations. The following table summarizes the type of information collected to date at each monitoring station.

Permanent Monitoring Station Name	Site Surveyed in FY 89?	Years Having Habitat Survey Data	Years Having Fish Density Estimates	Habitat Map of Site Available?
N.Fk.White Bird Creek*	Yes	1988,1989	1988,1989	No
S.Fk.White Bird Creek	Yes	1988,1989	1988,1989	No
N.Fk.Slate Creek*	Yes	1988,1989	1988,1989	No
Little Slate Creek	Yes	1988,1989	1988,1989	No
Johns Creek*	Yes	1987,1988,1989	1987,1988,1989	Yes
North Meadow Creek	Yes	1988,1989	1988,1989	Yes
Trail Creek[1]				
N.Fk.Red River Upper*	Yes	1988,1989	1989	No
N.Fk.Red River Lower*	Yes	1989	1989	Yes
Trapper*	Yes	1988,1989	1989	No
S.Fk./W.F.Red River[2]	Yes	1988,1989		No
Upper Big Mallard Cr.[3]	Yes	1987,1989	1989	No
Running Creek*	Yes	1988,1989	1988,1989	No
Bear Creek*	Yes	1988,1989	1988,1989	No
O'Hara Creek	Yes	1988,1989	1988,1989	No
Gedney Creek	Yes	1989	1989	No
Meadow Creek Lower[4]*	Yes	1988,1989	1988,1989	Yes
Meadow Creek Middle[5]*	No		82-83,87-88	No
Sable Creek	No	1987,1988	1983,1987,1988	No
Butte Creek	No	1987,1988	1987,1988	No
Tenmile Creek*	No	1988	1988	No
Lower Crooked River*	No	1988	1988	No
Lower Newsome Creek*	No	1988	1988	No
Upper Newsome Creek*	No	1988	1988	No

*Stream also monitored by Idaho Dept. Fish and Game (IDFG) for population densities.

[1] Anticipated activities and coordination with IDFG did not materialize, station not needed at this time. Forest Plan will be amended to delete this station.

[2] These stations were dropped from Forest Plan (amended in FY 88), but a channel and substrate survey was conducted in cooperation with Intermountain Research Station personnel.

[3] This station is incorrectly called "Slide Creek" in the Forest Plan, after the Slide Creek Sale. Actual site is on Big Mallard Creek. It is being used to monitor a road crossing. The Forest Plan will be amended to reflect this name change.

[4] Station location moved upstream 100m in 1989 to a location with a better diversity of habitat.

[5] Fish only station.

Information regarding whether or not a fisheries survey was completed prior to the signing of a decision notice is shown below for 1988 and 1989:

Environmental Analysis	Fish Habitat Surveys Completed prior to Signing of Document
FY 1988	
Spike Ridge[1]	No
Shooting Star[2]	NA
Lower Crooked River[3]	No
Boyer [4]	No
FY 1989	
Baboon Gulch[5]	No
Flint Cr. & E.F. American[6]	Yes
South Fork	Yes
North Fork Red River[7]	Yes
Clear Creek	Yes
Rimrock[8]	Yes
Wing Creek-Twentymile	Yes

[1]Sale did not sell but will be readvertised this year with revisions. There are no plans to survey streams at this time.

[2] No streams occur in the analysis area.

[3] The only stream in the analysis area, Deadwood Creek, was surveyed in 1989.

[4] Siegal Creek was surveyed in 1987. There are no plans to survey French Gulch.

[5] Surveys are planned for FY 90.

[6] Based on data collected in 1978, streams resurveyed in 1989.

[7] Based on data collected during last 10 years.

[8] Only Fish Creek contains (resident) fish. It was surveyed in 1982.

Evaluation of Monitoring Results:

A total of 16 out of 22 permanent monitoring sites were measured in 1989. No trends can be established until additional data is collected. The results of monitoring were scheduled to be fully evaluated in the Monitoring and Evaluation Reports for fiscal years 1990 to 1992, but the majority of streams will not have sufficient data until 1991 or 1992. The 1988 Annual Monitoring and Evaluation Report listed Sable Creek, Butte Creek, and Upper Big Mallard Creek (i.e., Slide Creek) as having 4, 4, and 3 years of available data, respectively. However, a review of District records revealed that only 2 years of data can be found for Sable and Butte Creeks and only 1 year of data (prior to 1989) was collected for Upper Big Mallard Creek. Data from other years for Sable and Butte Creeks has apparently been lost.

Baseline fisheries habitat surveys were conducted and the data analyzed for streams in six out of the seven timber sales that had decisions signed in FY 89. This is an increase over 1988 when no stream surveys were completed for timber sales that had decisions signed that year.

A modified survey procedure was implemented in 1989, based on a "basinwide survey" procedure. Stream habitat variables are similar to the previous survey technique, but are no measured for each habitat "unit" (e.g., pool, riffle, glide) instead of using a transect methodology. The new procedure is expected to increase the statistical validity of the survey data. Response to Environmental Assessments released

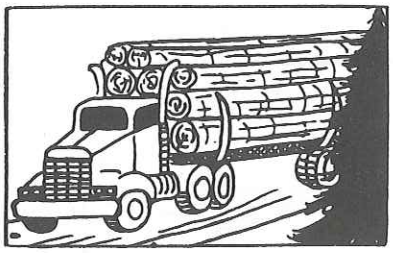
during FY 89 indicates that several "publics" expect to see stream surveys completed and the results included in all Environmental Assessments prior to their release.

Item 10:	**Population Trends of Indicator Species--Fish**
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	3 to 5 years (FY 1990 to 1992)
Variability Which Would Initiate Further Evaluation:	Variability in population trends is expected to be very high. Population trends of indicator species will be monitored in relation with habitat monitoring (item 2e) and used in the analysis of habitat condition only.

Discussion:

Population densities of indicator species by age class were measured in 17 of the 21 monitoring sites in 1988. No trends can be established until additional data is collected.

The results of monitoring are **scheduled to be fully evaluated in the Monitoring and Evaluation Reports for fiscal years 1990 to 1992.**



TIMBER

Item 1h:	Allowable Sale Quantity (ASQ) By Components
Frequency of Measurement:	Annual (October 1, 1988 - September 30, 1989)
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 (Forestwide 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 volume that may be sold during the planning period from the suitable land base. The ASQ is a sold-volume ceiling, and is monitored yearly using the average annual ceiling of 108 MMBF chargeable volume. This chargeable volume is divided into two components: regular (green live and recently dead resulting from insect/ disease or fire) and noninterchangeable (pulp/cedar products and endemic mortality). Fuelwood volume (both commercial and personal use), volume on unsuitable lands, and volume that is too small or defective to meet Regional Utilization Standards for sawlogs/pulp/cedar products is nonchargeable and is not considered as part of the ASQ achievement.

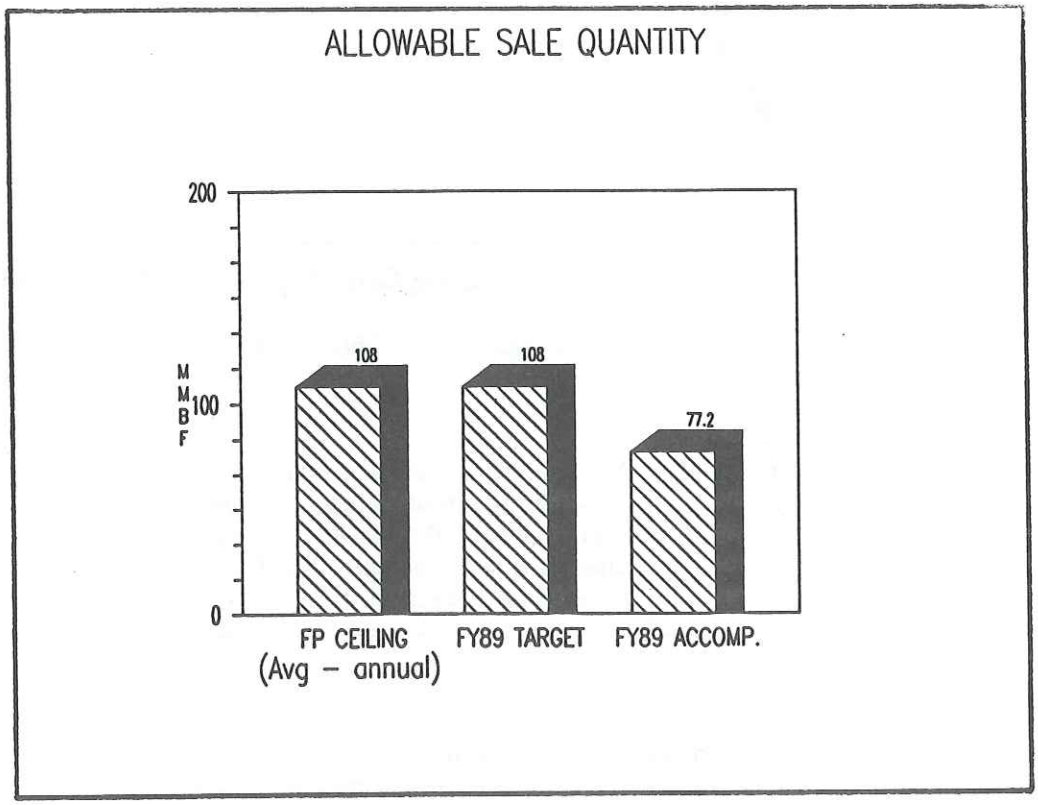
Although this item is monitored on an annual basis, actual ASQ achievement will be based on the decade total. Yearly figures may be above or below the Forest plan ASQ ceiling of 108 MMBF (103 MMBF regular and 5 MMBF noninterchangeable).

Monitoring Results:

CHARGEABLE VOLUME SOLD IN FY 1989[1]

Components	Volume (MMBF)
Regular	68.5
Noninterchangeable (NIC)	
Pulp	7.6
Cedar Products	1.1
Total FY 1989 ASQ	77.2

[1] The ASQ breakdown was based on the Nez Perce Periodic Timber Sale Accomplishment Report accumulated as of September 30, 1989 (fiscal year summary).



In addition, there was 7.9 MMBF offered for sale in fiscal year 1989, that received no bids.

In fiscal year 1989, the Forest sold 3.5 MMBF of the nonchargeable component (not counted as part of the ASQ). This was primarily firewood and post/pole material of a size that is too small to meet utilization standards.

Avg. Annual ASQ Ceiling	1989 Chargeable Volume Sold	Total Chargeable Volume Sold to Date*	% of Avg. Annual ASQ Sold for 2 Years
108.0 MM/year	77.2 MM	185.7 MM	86

* In fiscal years 1988-1989, which are the first 2 years of the decade covered under the Forest Plan.

Evaluation of Monitoring Results

It is not possible to make a definitive decision concerning the "achievability" of the decadal ASQ ceiling based on only 2 years worth of data. Certainly, the 86 percent ASQ achievement for first 2 years of decade means that to meet the decadal ASQ, the 108 average must be exceeded in 1 or more years in the future.

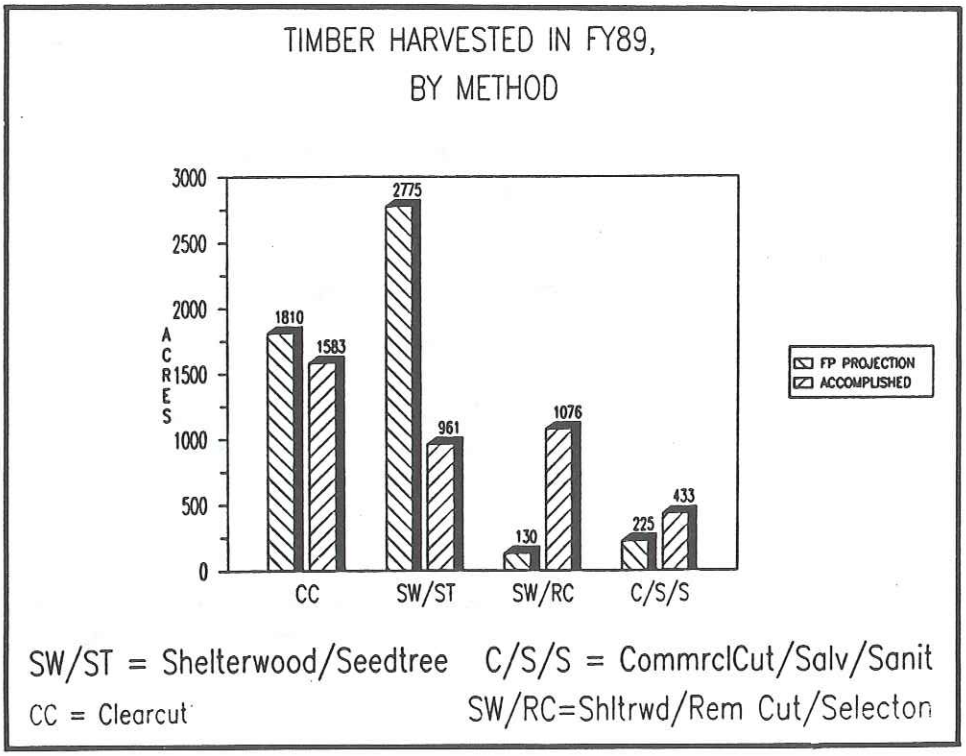
During the first 2 years of the decade, the Forest exceeded the Forest Plan average annual scheduled timber sold acreage by 3 percent (see Table 11-c), yet undersold the average annual ASQ ceiling by 14 percent.

Although selling the full decadal ASQ ceiling is a possibility, preliminary outyear volume/acre and silvicultural prescription predictions indicate it is not likely.

Item 1i:	Acres Timber Harvested by Method (Includes Precommercial Thinning)
Frequency of Measurement:	Annual (October 1, 1988 - September 30, 1989)
Reporting Period:	Annually
Variability Which Would Initiate Further Evaluation:	Unacceptable results of an interdisciplinary review.

Monitoring Results:

Precommercial thinning occurred on 1033 acres which is approximately 103 percent of planned accomplishments. Harvesting took place on 4,053 acres (39 percent clearcut, 50 percent seed cut from shelterwood and seed tree, and 11 percent from other cutting methods). The average stand size harvested was 26 acres.



Evaluation of Monitoring Results:

Harvested acres are primarily from sales sold before Forest Plan implementation and are reflective of market conditions.

Item 2f:	Vegetative Response to Treatments
Frequency of Measurement:	Annual (October 1, 1988 - September 30, 1989)
Reporting Period:	5 years (FY 1992)
Variability Which Would Initiate Further Evaluation:	Data and analysis which would indicate that projected yields are in error.

Discussion:

Permanent plots are continuing to be established and remeasured after treatment, but the number of growth remeasurements is insufficient to compare with predicted results.

The results of monitoring are **scheduled to be fully evaluated in the FY 1992 Monitoring and Evaluation Report.**

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, 1988 - September 30, 1989)
Reporting Period:	5 years (FY 1992)
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 and summarized with the reforestation history (12/5/88) and reforestation index (12/6/88) report. Inventory results for FY 1989 will not be available until March 1990.

Monitoring Results:

First, third, and fifth year exams were conducted on 13,246 acres of plantation. Eighty-nine percent of these acres are progressing towards satisfactory stocking. Two droughty summers accounted for most of the seedling mortality. Replants are scheduled on acres needing additional stocking. Natural regeneration was accomplished within 5 years of final harvest on 97 percent of stands harvested since 1976.

Evaluation of Monitoring Results:

The results of monitoring are **scheduled to be fully evaluated in the FY 1992 Monitoring and Evaluation Report.**

Item 5:	Unsuited Timber Lands Examined to Determine Suitability
Frequency of Measurement:	Annual (October 1, 1988 - September 30, 1989)
Reporting Period:	10 years (FY 1997)
Variability Which Would Initiate Further Evaluation:	Significant changes in suitable acres.

Discussion:

Unsuitable lands are currently being inventoried as part of the Forest's standard examination process. The inventory will be completed in 1991. Suitability is currently being evaluated in a systematic manner by management area in Environmental Assessments for proposed projects. An evaluation and summary of changes will be provided at the 5-year review (end of FY 92).

The results of monitoring are **scheduled to be fully evaluated in the FY 1997 Monitoring and Evaluation Report.**

Item 6:	Maximum Size of Opening for Harvest Units
Frequency of Measurement:	Annual (October 1, 1988 - September 30, 1989)
Reporting Period:	Annual
Variability Which Would Initiate Further Evaluation:	Unacceptable results of an interdisciplinary team review.

Monitoring Result:

Of the 157 stands harvested in fiscal year 1989, one exceeded the 40-acre size-of-opening criteria. This unit was a clearcut. Final cut on older seed tree and shelterwood units over 40 acres are 42, 52, 56, 80, 87, 93, 123 and 154 acres. The units were adequately stocked with regeneration prior to harvest. Two timber sales sold in fiscal year 1989 had three units that exceeded 40 acres and all were reviewed by an interdisciplinary team and found to be acceptable in meeting resource objectives. These units ranged from 43 to 47 acres.

Evaluation of Monitoring Results:

All harvest activities greater than 40 acres and those adjacent to other openings are evaluated against National Forest Management Act and Forest Plan requirements. Interdisciplinary review determined that resource objectives are being met.

Item 11:	Validation of Resource Prediction: Timber (Sold Acres in FY 88-89)
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	2 to 5 years (FY 1989 to 1992)
Variability Which Would Initiate Further Evaluation:	If validation efforts show a need for changes to existing resource predictions.

Monitoring Results:

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 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 Forest Plan estimates as well as actual FY 88-89 data taken from sold sales during this period. Sales contained in the actual FY 88-89 sold data include all sales having an appraisal (supervisor and ranger authority timber sales). Offered sales that did not sell are not included.

Table II-a -- Sold Net Volume/Acre by Silvicultural System

Silvicultural System	Forest Plan Estimated Volume/Acre	FY 88 Vol/Acre	FY 89 Vol/Acre	Weighted Avg* FY 88 - 89 Volume/Acre
Clearcut (Units)	32.5 MBF	24.5 MBF	24.1 MBF	24.4 MBF
Clearcut (Rd ROW)	32.5 MBF	29.4 MBF	16.4 MBF	24.5 MBF
SW Prep Cut [1]	none planned	19.3 MBF	none sold	19.3 MBF
SW/ST Seed Cut [2]	18.3 MBF	15.5 MBF	15.4 MBF	15.5 MBF
SW/ST Final Cut [3]	5.0 MBF	5.6 MBF	8.4 MBF	5.8 MBF
Sanitation/Salvage	none planned	8.9 MBF	11.1 MBF	9.5 MBF
Commercial Thin	5.9 MBF	none sold	none sold	none sold
Selection Cut [4]	12.6 MBF	4.6 MBF	none sold	4.6 MBF
Weighted Average	22.6 MBF	16.3 MBF	20.6 MBF	17.7 MBF

*Weighted by acres sold

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

Silvicultural System	Forest Plan Scheduled Distribution %	FY 88 Distri.%	FY 89 Distri.%	Weighted Avg* FY 88 - 89 Distribution %
Clearcut (Units)	36	40	61	47
Clearcut (Rd ROW)	included above	3	4	4
SW Prep Cut [1]	none planned	<1	none sold	<1
SW/ST Seed Cut [2]	56	24	22	23
SW/ST Final Cut [3]	3	29	6	23
Sanitation/Salvage	none planned	1	1	1
Commercial Thin	2	none sold	none sold	none sold
Selection Cut [4]	3	3	none sold	2
Totals	100.0	100.0	100.0	100.0

*Weighted by acres sold

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

Silvicultural System	Forest Plan Scheduled Acres/Year	FY 88 Acres Sold	FY 89 Acres Sold	Average FY 88 - 89 Acres/Year
Clearcut (Units)	1,710	2,607	1,989	2,298
Clearcut (Rd ROW)	included above	239	144	192
SW Prep Cut [1]	none planned	3	none sold	1
SW/ST Seed Cut [2]	2,705	1,549	731	1,140
SW/ST Final Cut [3]	130	1,921	374	1,148
Sanitation/Salvage	none planned	52	23	37
Commercial Thin	100	none sold	none sold	none sold
Selection Cut [4]	125	189	none sold	95
Totals	4,770	6,450	3,261	4,910

[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 uneven aged management...either group or individual tree selection.

Table 11-d -- Total Acres Sold by Management Area (MA)

MA Code	Management Emphasis	Forest Plan Scheduled Acres/Year	FY 88 Acres Sold	FY 89 Acres Sold	Average FY 88 - 89 Acres/Year
10	Riparian	180	139	70	
12	Timber	1,543	5,083	2,374	3,728
13	Aggreg(12/17)	75			
14	Aggreg(12/16/17)	60			
15	Aggreg(12/16)	702			
16	Elk/deer WR	500	1,245	509	877
17	Visual/Scenic	388	71	173	122
18	Aggreg(16/17)	197			
20	Old Growth	none planned	35	22	29
21	Moose WR	110	126	44	85
23	Municipal Watersheds	15			
To-tals		4,770	6,560	3,261	4,910

Note: WR = winter range. Management Areas 13, 14, 15 and 18 are aggregates of other MAs. These aggregate MAs were included because the distribution and size of the included MAs was such that they could not be accurately mapped. During the site-specific project analysis, these aggregate MAs will be displayed on a smaller scale showing only the "pure" MAs (i.e., 10/12/16/17/18/20/21/23).

[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 uneven aged management...either group or individual tree selection.

Evaluation of Monitoring Results:

From the actual data for sold sales in FY 88 and FY 89 the following trends are beginning to appear:

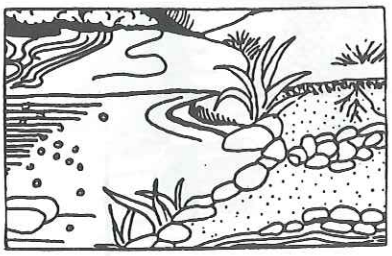
- Actual net cruised volume/acre (all silviculture systems) on sold sales is 22 percent less than that estimated in the Forest Plan (see Table 11-a). In looking at individual silviculture systems, the largest volume/acre difference between Forest Plan and actual FY 88-89 figures is in clearcut (25 percent less), followed by SW/ST seed cuts (15 percent less). The SW/ST final harvest units yielded 16 percent more net volume than the Forest Plan estimate. Other systems also varied, but the sample size was too small to be significant.

- Actual FY 88-89 data for silvicultural system distribution also varies significantly from the Forest Plan estimates (see Tables 11-b and 11-c). More clearcut and final cut units are being sold, with less sold in SW/ST seedcut systems.

- More harvesting is occurring in Management Area 12 (timber emphasis) than was scheduled in the Forest Plan (see Table 11-d).

- The combined FY 88-89 sold acres slightly exceed the average yearly sold acres estimated in the Forest Plan (3 percent more acres than the Plan estimate). However, as was seen on the distribution table (11-b), the Forest Plan average annual acreage figure by production is exceeded in clearcut (units plus road ROW) and in final cut prescriptions.

In order to be more consistent with the Forest Plan, future sales should consider less clearcut/final harvest prescriptions and more shelterwood/seed tree regeneration seed cuts. Also, given the falldown in volume per acre in sold sales compared with Forest Plan estimates, the Forest will continue to monitor closely and explore existing inventory data to determine if the FY 88-89 trends can be expected to continue.



SOIL AND WATER

Item 1j:	Soil and Water Rehabilitation and Improvements
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	Annually
Variability Which Would Initiate Further Evaluation:	If the Forest did not achieve its assigned target for the fiscal year.

Monitoring Results:

The Regionally assigned target for soil and water improvements using appropriated funds in fiscal year 1989 was 200 acres. The Forest Plan projection is 200 acres per year. Funding was available to accomplish 135 acres of direct improvement. Additional improvements were accomplished using other funding sources.

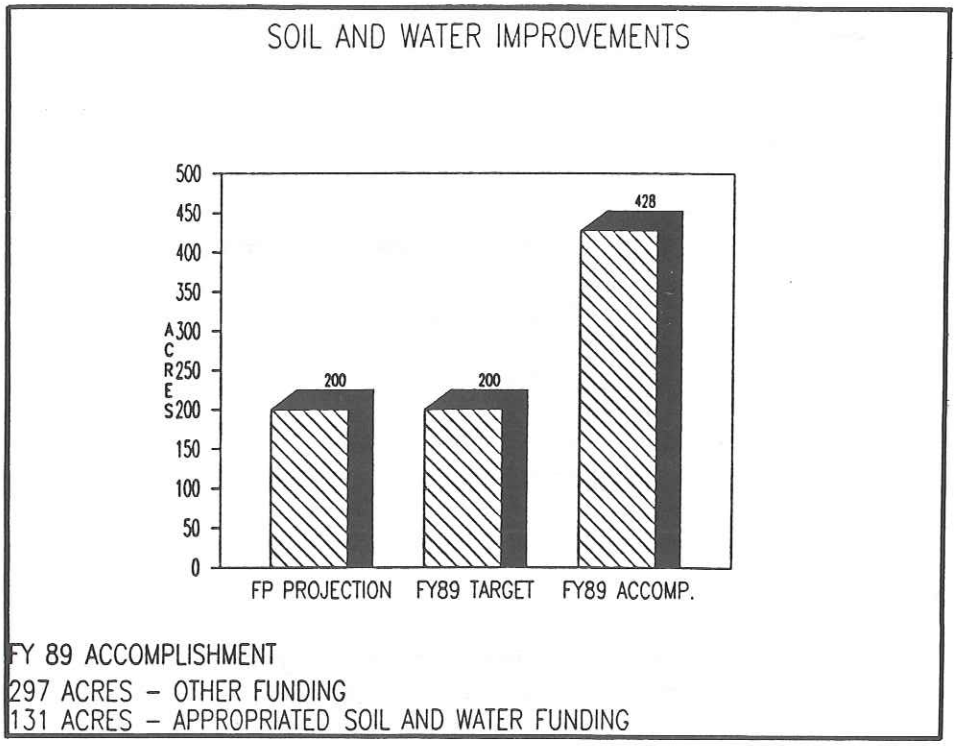
The following improvements were accomplished in fiscal year 1989:

SOIL AND WATER IMPROVEMENTS ACCOMPLISHED IN FISCAL YEAR 1989

Improvements by Funding Source	Acres
Appropriated Soil and Water	131
Knutsen-Vandenburg Act (KV)	93
Bonneville Power Administration (BPA)	3
Excess Timber Sale Receipts	144
Road Maintenance	57
TOTAL	428

Evaluation of Monitoring Results:

Although funding was inadequate to accomplish all assigned soil and water improvement targets intended for appropriated soil and water funds, the Forest exceeded its Forest Plan goals by accomplishing work through other funding sources.



Item 2g:	**Impacts of Management Activities on Soils**
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
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.

Discussion:

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 appropriately designated best management practices (BMPs) were applied. Soil implementation monitoring was conducted on two timber sales and one prescribed fire for wildlife habitat enhancement.

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 or puddling; and 2) minimize erosion and sloughing on road cuts and erosion on other activity areas. Soil effectiveness monitoring was conducted on two wildfires.

Monitoring Results:

Implementation Monitoring: Soil implementation monitoring was conducted on two timber sales and one prescribed fire for wildlife habitat enhancement. Additional monitoring was conducted during the course of project administration and district field reviews.

Environmental analyses on both timber sales used soil information to predict sediment production. Predicted sediment was used to help select number, location, and scheduling of activity areas. Soil and riparian inventories were used to help identify areas of wet soils susceptible to displacement and puddling.

Soil properties were not evaluated to identify areas of compactible soils. On one sale, designated skid trails were prescribed to limit extent of soil compaction by log skidding, but on the same units prescribed machine scarification is likely to result in soil compaction and displacement that exceeds Forest Plan standards. The second monitored timber sale prescribed broadcast burning for site preparation, which typically maintains soil productivity, but the same units have no provision for restricting skidding. Excessive soil compaction and displacement are a likely consequence.

The environmental analysis for the prescribed wildlife burn documented geologic types in the activity area, but did not use any soil or landform information to evaluate alternative sites or burn strategies, predict soil and water response, or discuss the need for any mitigation measures to maintain soil productivity. Implementation of the project was as designed.

Effectiveness Monitoring: Quantitative soil effectiveness monitoring was conducted on two wildfires. Additional qualitative monitoring was conducted during the course of District and multilevel field reviews of active timber sales and a prescribed fire for wildlife habitat enhancement.

District field reviews of harvest unit tractor-skidding impacts resulted in additional mitigation measures to protect slope hydrologic function, control erosion, and reduce soil disturbance.

Field review of the wildlife burn indicated that generally low fire intensities left sufficient organic matter in place to minimize surface erosion. Areas of high fire intensity and resulting bare mineral soil were small, and typically confined to ridgetops where the erosive force of water is less than on steeper sideslopes.

Two wildfires were quantitatively monitored to assess (1) effects of rehabilitation measures to control erosion or (2) document erosion as a consequence of wilderness fire.

Seeding and fertilizing of a small fire that had severely burned in 1988 on a very steep site adjacent to a perennial stream resulted in virtually no erosion on the sideslopes. The cereal rye established very successfully, and did not appear to be currently inhibiting survival of planted trees or recovery of native forest forbs and shrubs.

Erosion plots in an area severely burned in 1988 in the Selway-Bitterroot Wilderness were monitored. Results suggest that erosion on these steep slopes and granitic soils is apparent, but most material delivered to the stream systems comes from stream channel scour, fire ash, and limited areas of oversteepened concave upper slopes that collect runoff. Erosion on most slopes is confined to discontinuous sheet and rill erosion, resulting in redistribution of some surface soil, but relatively little delivery of surface soil to the stream system.

Validation Monitoring: Three validation monitoring projects were in progress on the Forest in 1989.

The grand fir/wild ginger project neared completion with analysis accomplished. This project monitored vegetation development and pocket gopher response to management activities on sites in the grand fir/wild ginger habitat type and sites in alder/coneflower/bracken fern plant communities. Response was found to vary with disturbance type and intensity, as well as the ecological site type that can be identified using soil characteristics and indicator plants. The research need for this project is identified in the Forest Plan (II-12: Timber Nos. 1 and 2).

The riparian classification project was initiated in 1989. Its objective is to describe the stream systems, soils and vegetation of these areas, their site potential, and response to management activities. This responds to the research need to predict cumulative effects of management on watershed and fishery values (Forest Plan II-12: Fish/Water No. 8) and to the need for a classification system with which to delineate and evaluate riparian areas (Forest Plan II-22: Forestwide Management Direction for Riparian Areas), as well as the needs to develop appropriate best management practices and standards for monitoring impacts.

An administrative study to examine differences in soil moisture retention in mixed and intact volcanic ash-influenced surface soils was begun in 1985. Data analysis is not yet complete. This project responds to the identified research needs to determine the value of this material and to describe effects of soil displacement on soil productivity (Forest Plan II-12: Soils No. 1 and II-13: Timber No. 3).

Evaluation of Monitoring Results:

Implementation monitoring while land-disturbing projects are active, is an important source of information for project adjustment and future project design to reduce extent and severity of soil compaction, displacement, and erosion. Improved monitoring will result from employing consistent criteria for recognizing soil damage. These criteria are available in Forest Service Handbook 2509.18, Chapter 2: Soil Quality Monitoring.

Training in the application of these criteria to recognize when unacceptable soil damage is occurring will be given in 1990.

Soil information can be used in integrated resource analysis and project design to identify areas with specific soil limitations and to design practices which control soil damage. Some Districts are making progress in this area.

Training in application of soil survey and site-specific data to integrated resource analysis and project design will be given in 1990.

Limited quantitative data from 1986 through 1988 suggest that unrestricted tractor skidding and machine piling of slash result in compaction and soil displacement that exceed Forest Plan standards.

Additional data are needed to document the relationship among these common forest practices, impacts on the soil resource, and changes in long-term productivity. These data would significantly assist our ability to disclose environmental effects of timber harvest and evaluate alternative management practices.

Additional funding and expertise will be sought in 1990 to begin this monitoring effort. At the same time, alternative site treatment practices will be sought and evaluated for their effectiveness in protecting the soil resource. This monitoring effort will address a basic research need identified in the Forest Plan (II-12: Soils No. 1).

Extensive use of fire for fuel reduction and wildlife forage enhancement has been proposed in the Forest Plan. The consequences of repeated burning and of maintenance of forest systems in prolonged seral brush stages need to be investigated for effects on soil productivity.

Monitoring of vegetation response to prescribed fire for wildlife enhancement is scheduled for 1990. This information can be used to help evaluate program results. Additional monitoring of effects on the soil resource is recommended.

Item 2h:	Impacts of Management Activities on Water Quality
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
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.

Monitoring Results:

Effectiveness and Validation Monitoring: The Forest collected water quality data at nine stations (Rapid River, Little Slate Creek, Johns Creek, Upper Red River, South Fork Red River, Trapper Creek, Wall Creek, South Fork Clearwater River, Selway River, Main Horse Creek, and East Fork Horse Creek). Variables measured varied between stations, but included discharge, suspended sediment, bedload sediment, water temperature, and conductivity.

The Forest maintained seven precipitation storage gages and five precipitation recording gages.

Stream channel characteristics data were collected at seven sites coordinated with fish habitat monitoring stations (Running, Bear, Gedney, Tenmile, and Trail Creeks, and two sites on Crooked River). Variables measured included channel slope, channel cross-sections, benchmark elevations, and substrate particle size distribution. All sites were photo-documented.

A report entitled "Hydrologic Data Summary - Water Year 1988" was issued. This report summarizes stream-flow and climatic data collected on the Forest during the year.

Monitoring plots were set up on two wildfires following the 1988 fire season. On one fire, channel cross-section and cobble embeddedness transects were established by the Intermountain Research Station. On the other fire, Forest personnel established transects on a major stream, three small tributaries and adjacent burned areas. Variables included channel cross-sections, embeddedness, soil erosion, and vegetation recovery. These plots were remeasured in 1989.

Monitoring results from one of the two fires suggest that substantial erosion occurred after the fire. Erosion was evident on the sideslopes and in small tributary channels. Deposition was noted in the major stream in reaches directly adjacent to heavily burned areas. Cobble embeddedness did not increase in a reach at the downstream end of the fire.

Evaluation of Monitoring Results:

Analysis of data from the fixed water quality monitoring stations is ongoing. The Forest was unable to complete a planned report evaluating all water quality data collected since 1975. It is now anticipated that this report will be completed in Fiscal Year 1991.

Item 2i:	Water Quality: Project Level Administrative Reviews and Fleld Studies
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
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 Monitoring: Interdisciplinary administrative field reviews were conducted by the Forest on three timber sales, one mining project, and one prescribed wildlife burn. Results of these reviews which pertain to water quality are summarized below.

The first timber sale was reviewed after all of the logging was completed. It was found that the sale met most water quality provisions of the Forest Plan and the Idaho Forest Practices Act Rules. Skidding occurred on slopes exceeding those stipulated in the FPA Rules, but evidently did not result in offsite sedimentation. The high quality of sale administration on this project directly contributed to minimizing impacts.

The second sale was reviewed after sale layout was completed, but prior to logging or road construction. Considerable attention had been paid to road sediment mitigation measures and riparian management prescriptions. If implemented as designed, the sale should exceed Forest Plan and Forest Practices Act provisions in these areas.

The third timber sale was reviewed after road reconstruction was completed, but prior to logging. The reconstruction was major on this sale in order to improve drivability and reduce erosion on the road. It is expected to result in a short-term increase in sediment production followed by a long-term improvement.

A small placer operation was reviewed following completion of rehabilitation activities associated with the most recent phase of mining. Mitigation measures specified in the environmental assessment for the project were carried out. Additional improvement needs remain, but these were the result of an earlier phase of mining.

A prescribed wildlife burn was reviewed about 2 weeks after ignition. Little evidence of erosion was observed on burned areas following a rainfall of approximately 1 inch. It was noted that additional opportunities for coordination with soil and water resources exist in the planning phase of prescribed wildlife burns.

Numerous informal field reviews were conducted on a variety of projects during 1989. These are documented in various ways, including daily diaries, file notes, and memos. These reviews are often conducted as routine inspections of timber sales, road contracts, mining operations, or other projects.

Results of informal reviews on two timber sales revealed that sale contract provisions and road design specifications are sometimes insufficient to ensure protection of soil and water resources. In the case of these sales, the sale administrator and road construction inspectors were able to make onsite modifications to minimize damage.

Effectiveness Monitoring: Water temperature monitoring was conducted on Clear Creek in 1988 in conjunction with a Coordinated Resource Management Plan. This is a joint project with significant involvement by the Idaho Division of Environmental Quality, US Fish and Wildlife Service, Soil Conservation Service, Nez Perce Tribe, and Forest Service. Monitoring was conducted at the Forest boundary and near the Kooskia National Fish Hatchery located several miles downstream.

The following summarizes maximum daily temperatures recorded:

MONTH	FOREST BOUNDARY	HATCHERY
JUNE	0 days at 20° C or more Max = 18° C (2 days) (Started 6/21/88)	17 days at 20° C or more Max = 27° C (1 day) (Started 6/1/88)
JULY	0 days at 20° C or more Max = 19° C (7 days)	27 days at 20° C or more Max = 28° C (1 day)
AUGUST	0 days at 20° C or more Max = 18° C (3 days)	28 days at 20° C or more Max = 27° C (1 day)
SEPTEMBER	0 days at 20° C or more Max = 16° C (4 days)	14 days at 20° C or more Max = 25° C (1 day)

Evaluation of Monitoring Results:

Field reviews and project-level studies conducted during 1989 suggest that the Forest is strongly committed to management of water quality. Awareness of the agency's role in implementing the Clean Water Act through the Idaho Water Quality Standards and the Forest Practices Act (FPA) is increasing. Proper use of an FPA variance procedure under development will eliminate some of the "procedural" violations detected during field reviews. Improved training and coordination with field personnel in water quality management techniques will be beneficial to accelerate movement toward 100% compliance.

Evaluation of the Clear Creek water temperature data suggests that much of the temperature increase noted at the fish hatchery is occuring below the Forest boundary. Temperature effects resulting from our management are important and our activities will be monitored to assure Idaho State law standards are met.

Item 2j:	**Impacts of Management Activities on Riparian Areas**
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	Annually
Variability Which Would Initiate Further Evaluation:	Activity areas found in significant violation of Forest Plan standards.

Discussion:

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

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

Riparian implementation monitoring was conducted on three timber sales, one mining operation, and one prescribed fire. Additional monitoring was carried out through work of District personnel in project design and implementation.

An informal review of an active timber sale in a riparian area was conducted and documented on one District. In this case, blowdown and logging damage to designated leave trees resulted in streambank erosion and channel blockage.

Effectiveness monitoring determines if management practices have caused detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment that seriously and adversely affect water conditions and fish habitat; and if cover and security for riparian-dependent species have been maintained.

Qualitative effectiveness monitoring was conducted on field reviews of one road reconstruction, one timber sale, and one prescribed fire.

Quantitative monitoring was done on two wildfires. See this discussion under monitoring item 2h.

Monitoring Results:

Implementation Monitoring: The delineation and evaluation of riparian areas for project development improved significantly in 1989 over earlier years. Superior performance was noted on one timber sale in the development of prescriptions through interdisciplinary analysis of site-specific riparian resources. Timber sale projects developed after 1987 generally show prescriptions that meet or exceed provisions of the Idaho Forest Practices Act.

The prescribed burning project did not demonstrate delineation or evaluation of riparian areas or considerations of wetlands. The prescription was modified in implementation to avoid ignitions in these areas, and was successful.

The road reconstruction in a riparian area was generally in compliance with the Forest Practices Act. With knowledge of the provisions of the Act and the variance procedure, an alternative site to a landing in the riparian zone might have been developed, or a variance sought for the present location.

The sale in which riparian area blowdown occurred demonstrated the danger of certain prescriptions in wind-prone areas and the need for heavier leave marking in these situations.

Preferential consideration of riparian-area-dependent resources has improved in 1989. There is increasing consensus in reviews of projects on the measures appropriate to protect or enhance riparian areas.

Effectiveness Monitoring: Impacts of road reconstruction in riparian areas were mitigated through use of special design features, sediment control measures during the work, and control of livestock after the work. Further monitoring is required for complete evaluation of effectiveness.

Avoiding ignitions in riparian areas in the prescribed burning project was generally successful in protecting local riparian areas from fire.

Rapid and thorough rehabilitation of a riparian area severely burned by wildfire was effective in restoring bank stability and sediment storage capacity of the stream channel. Shade and cover for dependent species are being restored rapidly through grass seeding and planting of trees and shrubs.

More quantitative monitoring of stream sediment and temperature conditions is discussed under item 2h, Impacts of Management Activities on Water Quality.

Methods to monitor effectiveness of riparian prescriptions in maintaining cover and security for riparian-dependent wildlife species, particularly big game, are poorly developed.

Evaluation of Monitoring Results:

Site-specific riparian prescriptions have been recognized as important elements of a project design. Information is needed on how to assess woody debris needs or other resource values for different riparian systems. Development of the riparian classification system from the study initiated in 1989 will help provide this information as well as suggest monitoring standards for different riparian systems.

Improved awareness of best management practices and the variance procedure should be sought for new employees or resource functions that did not get training in 1988. A formal variance procedure is being developed and will be implemented in 1990.

There is a need to develop language for environmental documents that clarifies the intent of riparian management in a project area, while leaving flexibility in choice of specific practices for site-specific conditions. The draft Guide for Timber Management in Riparian Areas might be strengthened to provide examples of this kind of language.

Item 11:	**Validation of Resource Prediction Models: Water Quality and Fish:**
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	2 to 5 years (FY 1989 to 1992)
Variability Which Would Initiate Further Evaluation:	If validation efforts show a need for changes to existing predictive models.

Monitoring Results:

Validation Monitoring: Validation efforts are ongoing for three of the Forest's predictive models. They are the water yield, sediment yield, and fish habitat response models.

The Intermountain Research Station released a report in 1989 on streamflow responses to road building and timber harvesting in Horse Creek. In this paper, measured data will be compared to model predictions. This report suggests that the equivalent clearcut area (ECA) approach tends to overestimate natural yields and underestimate increases in water yield in small watersheds. The watersheds for which results have been reported to date are smaller than those for which the ECA procedure was developed.

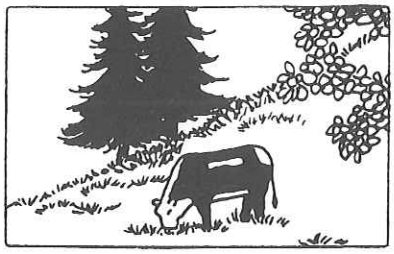
The Intermountain Research Station completed collection of sediment yield data in Horse Creek during 1988. It is planned that these data will be summarized and compared against predicted sediment yield data during 1990.

Validation of the Fish Response Model is not yet complete. Data analysis during FY 89 was disrupted when it was found that erroneous assumptions were being used in the analysis process. Data analysis will resume in FY 90 with results to follow in the FY 90 Annual Report.

Evaluation of Monitoring Results:

Managers should consider the effects of water yield increase on small drainages. Instantaneous peak flows may be more relevant than monthly or annual flow increases in determining effects of timber harvest.

Preliminary analysis suggests that the Forest's sediment yield model may tend to overestimate peak year sediment yields, but underestimate subsequent years.



RANGE

Item 1g:	Animal Unit Months Grazing Permits
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	Annually
Variability Which Would Initiate Further Evaluation:	+/- 10% of Forest Plan Estimate

Monitoring Results:

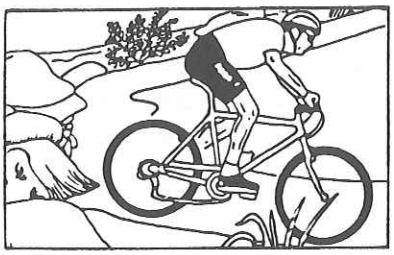
Funding for the range program was approximately 60 percent of the Forest Plan level. The Forest Plan projection for Allotment Management Plan updates in FY 89 was six. The Forest did not accomplish any Allotment Management Plan updates in FY 89. Efforts in FY 89 included permit administration, support to timber sale planning and coordination of needed range improvements.

Evaluation of Monitoring Results:

The Forest needs to consider adding the following monitoring item:

The Forest has 42 active allotments, but has not accomplished any Allotment Management Plan updates since approval of the Forest Plan. More emphasis needs to be placed on this effort to ensure quality range vegetation management, accomplishment of fishery/water quality objectives, successful tree regeneration and adequate forage availability on big game winter range.

In the field, livestock numbers are spot-counted annually as they enter the Forest. The Annual Grazing Statistical Report summarizes permit information by District and Forest. This report along with other file information will be used to monitor permitted grazing use.



RECREATION

Item 1a:	Recreation Visitor Days
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	5 Years (FY 1992)
Variability Which Would Initiate Further Evaluation:	Significantly different trends in recreation use occurring on the Nez Perce following a 5-year evaluation.

Discussion:

During the past several years, the Recreation Information Management (RIM) system has been in a state of flux pending the approval of a new system at the National level. All that is currently being reported is recreation use by activities.

Monitoring Results:

RECREATION USE BY ACTIVITY - FY 1989

Activity Category	Recreation Use (MRVD) [1]
Camping, Picnicking, and Swimming	241.9
Mechanized Travel and Viewing Scenery	193.2
Hiking, Horseback Travel, and Water Travel	76.6
Winter Sports	10.4
Resorts, Cabins, and Organizational Camps	11.5
Hunting	91.4
Fishing	33.7
Non-Consumptive Fish and Wildlife Use	3.2
Other Recreational Activities	59.6
Total	722.5
Wilderness Use (included above)	
Gospel-Hump	21.5
Frank Church-River of No Return	10.0
Selway-Bitterroot	51.6
Total (included above)	83.1

[1]Thousand recreation visitor days

Evaluation of Monitoring Results:

The results of monitoring recreation use are scheduled to be fully evaluated in the fiscal year 1992 Monitoring and Evaluation Report. Apart from traffic count data, however, little effort was placed on

gathering accurate visitor use information in 1989. Only one District tried to update their data; the other Districts used the previous year's figures. Accuracy of RIM use estimates will improve only when gathering such information is given a priority, as may be the case in our current effort to develop a recreation marketing plan. The lack of a National system also needs to be remedied. The Regional Office is taking steps to assist in improving our visitor use data by developing a Regionwide format for reporting visitor use.

Item 1b:	**Acres of Recreation Opportunity Spectrum (ROS) Category**
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	5 Years (FY 1992)
Variability Which Would Initiate Further Evaluation:	Following a 5-year period, variation which would indicate that Forest Plan direction requiring a full range of recreation opportunities is not being met, or if the semi-primitive classes are being lost more quickly than specified in the Plan.

Discussion:

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

Monitoring Results:

Recreation Opportunity Spectrum (ROS) mapping for the existing situation was completed in 1979. No subsequent mapping has been done on a Forestwide basis since then to update ROS categories or to determine adopted ROS classifications for areas resulting from Forest Plan implementation. On individual projects and areas, ROS is being considered some of the time as part of the environmental analyses. This does not present a Forestwide picture, however. A comprehensive review of ROS changes will be needed after a 5-year period to determine if Forest Plan direction is being met.

From interim reports, it is evident that timber harvest activities and road construction in previously unharvested and unroaded areas are substantially reducing areas of semiprimitive nonmotorized and motorized ROS, converting these to roaded natural ROS. This is consistent with effects identified in the Forest Plan Environmental Impact Statement.

In fiscal year 1989, several projects on the Nez Perce National Forest were chosen at random for interdisciplinary team monitoring. Most of the interdisciplinary teams included a District employee with responsibilities in recreation. Documentation of these reviews indicated that although recreation was often considered in environmental analyses, ROS was not being consistently used as a tool to assess the projects. For example, only one District reported that it mapped changes in ROS categories as called for in the Forest Monitoring Plan.

Evaluation of Monitoring Results:

There is a lack of understanding and application of ROS on the Nez Perce National Forest. There needs to be a Forestwide effort in training and implementation of ROS procedures if it is to be a useful tool. What is needed is a review and revision of ROS maps Forestwide, incorporation of ROS into all environmental analyses, and a mechanism for updating ROS acreage changes in a data base. All of these will be necessary in order to adequately monitor ROS after a 5-year period.

The Forest is planning a training session on ROS concept and application during 1990 to help get us on track in this area.

The results of monitoring are scheduled to be fully evaluated in the fiscal year 1992 Monitoring and Evaluation Report.

Item 2a:	**Off-Road Vehicle Impacts**
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	5 years (FY 1992)
Variability Which Would Initiate Further Evaluation:	Unacceptable impacts caused by off-road vehicle use.

Monitoring Results:

The Off-Road-Vehicle (ORV) Monitoring Plan referenced in Appendix O of the Nez Perce Forest Plan is being replaced with a new Access Management Monitoring Plan for the Forest. Methodology for the systematic monitoring of ORV use and impacts is being developed. In the interim, this year's report consists of narrative evaluations prepared by each Ranger District.

ORV use on the Forest has been increasing in popularity and variety. Snowmobiles, three- and four-wheel all-terrain vehicles, and traditional four-wheel drive vehicles all contribute to this use.

The most prevalent ORV impact is illegal use of vehicles on closed roads, nearly all of which are gated. Use is restricted on many roads for wildlife security, to prevent soil erosion, and to reduce road maintenance. Each year, gates are broken or circumvented, with resultant impacts.

Efforts to reduce these impacts include posting of up-to-date orders at each gate, explanatory signs describing reasons for the closures, increased enforcement actions, publicity of successful prosecutions, and weekend hunter patrols to provide contact with visitors and an opportunity to explain road restrictions.

Review of randomly selected projects chosen for monitoring indicate that little is being done in the way of ORV monitoring. Specific instances of ORV abuse are handled on a case-by-case basis.

Evaluation of Monitoring Results:

Through further development and implementation of the Access Management Plan, the Forest needs to develop a systematic method to monitor ORV use and impacts. Some of the methodology is documented in the Access Management Guidelines, but not enough to satisfy the requirements of the Forest Monitoring Plan. The results of monitoring are **scheduled to be fully evaluated in the fiscal year 1992 Monitoring and Evaluation Report.**

Item 2b:	Adequacy of Cultural Resource Protection, Impacts on Cultural Resources
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	5 years (FY 1993)
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:

Implementation Monitoring: During fiscal year 1989, 22 projects were field-inventoried in compliance with section 106 of the National Historic Preservation Act as specified in the Forest Plan. This resulted in 2,600 acres being inventoried for cultural resources and 17 new archaeological sites recorded. Of these, 10 were determined eligible to the National Register of Historic Places and 2 were deemed not eligible. The determinations were made in consultation with the State Historic Preservation Office.

In addition to the new sites recorded, 28 previously recorded sites were monitored and their documentation updated. Of the 28 inspected this year, 3 were determined not eligible to the National Register and 25 were found eligible.

Two National Register properties were inspected for natural deterioration and vandalism. One of these received new shakes on some of the building roofs. It has been recommended to the State Historic Preservation Office that the garage at O'Hara House be replaced as it is in bad shape. State Historic Preservation Office has concurred with the recommendation.

Approximately 20 miles of the Southern Nez Perce Trail was marked with 6" x 6" cedar trail markers. The markers have two crossed feathers as a logo. The marking was accomplished by two Grangeville Boy Scout troops under the supervision of Forest Service employees and private citizens. The marking will continue next summer.

The historic Slate Creek Ranger Station has been renovated and opened on a full time basis during summer months. The displays inside represent activities at an early 1900 Ranger Station. Porches were added to the front and back to match the original configuration of the building.

An interpretation plan was completed for the Florence Boom Town Site. Work will start on the brochure and signs for the site this year.

All projects having cultural resource stipulations were monitored for compliance. No cultural resources were located in the previously surveyed areas that were visited.

One project that was monitored by a Forest interdisciplinary team did not have a cultural resource survey and evaluation done for the area.

Effectiveness Monitoring: None of the archaelogical sites that were inspected in fiscal year 1989 had any indication of recent vandalism, but three were impacted by National Guard training activities last spring. The disturbance was not serious and can be avoided by better communication in the future.

Evaluation of Monitoring Results:

The results of monitoring are **scheduled to be fully evaluated in the fiscal year 1992 Monitoring and Evaluation Report.**

Item 2c:	**Limits of Acceptable Change in Wilderness**
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	5 years (FY 1992)
Variability Which Would Initiate Further Evaluation:	If, after a 5-year review period, changes in wilderness exceeded acceptable limits.

Monitoring Results:

Detailed summaries were prepared in 1989 describing management of the Selway-Bitterroot, Gospel-Hump, and Frank Church River of No Return Wildernesses. These reports to Congress provide good monitoring information on the Nez Perce National Forest's wilderness.

Following is a summary of wilderness implementation plans, Limits of Acceptable Change (LAC) planning, and wilderness fire plans for the Nez Perce National Forest:

Selway-Bitterroot:

Currently operating under Selway-Bitterroot Management Direction approved by Regional Forester 6/25/82. This document is incorporated by reference in the Forest Plan for the Nez Perce National Forest.

Limits of Acceptable Change planning is currently being undertaken for many resource areas in the Selway-Bitterroot. When completed (the current schedule calls for August 1990 completion of planning effort), the changes resulting from the LAC effort will revise the management direction for the Selway-Bitterroot. Whether this will result in a totally new set of management plan direction, a revision of parts of that direction, or an amendment to the Forest Plan is still not known.

Gospel-Hump:

A management plan for the Gospel-Hump Wilderness was completed in 1985 and incorporated by reference into the Forest Plan for the Nez Perce National Forest.

Further assessment using LAC has not begun and is not currently scheduled.

Frank Church - River of No Return:

Currently operating under a management plan tied to Forest Plan. LAC process for validating management direction is tentatively scheduled to begin after the Selway-Bitterroot effort is finished.

Status of Wilderness Fire Management Plans for Wildernesses on the Nez Perce National Forest:

Selway-Bitterroot:

The fire management plan, suspended since 1988, was first prepared in 1978. It is currently being revised, and pending the outcome of public review will be in effect during the 1990 fire season.

Gospel-Hump:

The fire management plan, suspended since 1988, will probably not be revised and implemented until the 1991 fire season.

Frank Church - River of No Return:

The fire management plan, suspended since 1988, has been revised and should be in effect for the 1990 fire season.

Evaluation of Monitoring Results:

A great deal of effort is currently being put into completion of the Selway-Bitterroot Limits of Acceptable Change (LAC) planning process. The result should include detailed resource analysis, and both implementation and effectiveness monitoring requirements. Similar efforts in other wildernesses on the Forest are not as far along. Wilderness management is being given close scrutiny at the local, regional and national levels. Most management activities receive detailed environmental analysis. Problems brought up most by wilderness managers include insufficient funding and personnel, difficulty in keeping qualified personnel because of lack of career opportunities in wilderness management, and a continuing need to better communicate with the public and Forest Service employees regarding the proper use and management of wilderness.

The results of monitoring are **scheduled to be fully evaluated in the fiscal year 1992 Monitoring and Evaluation Report.**

Item 2d	Achievement of Visual Quality
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	5 years (FY 1992)
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 Forestwide over ten years ago, prior to the development and implementation of the Nez Perce National Forest Plan. The major task remains of reviewing these original VRM objectives and updating, or adopting 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 Agriculture Handbook 462 - The Visual Management System, and to specify a methodology for documenting visual quality decisions.

The Nez Perce National Forest has not employed a full-time landscape architect for nearly a decade. During this time, there has been no strong leadership in visual resource management. Visual quality, however, is being considered and documented in most on-the-ground activities. Through a combination of contract landscape architect involvement, assistance from the Forest Architect, and District visual resources management paraprofessionals, all but one District is making adequate progress toward meeting the visual quality objectives of the Forest Plan. Analysis is being made on a project-by-project basis. When VQO's are adopted, the areas are mapped and documented. This documentation will be reviewed during the 5-year assessment of achievement of visual quality objectives.

Evaluation of Monitoring Results:

On most Districts, some progress is being made in understanding and achieving VQOs. The lack of a Forest landscape architect necessitates a reliance upon District paraprofessional visual resource specialists, contract landscape architects, and occasional assistance from the Forest architect. Although this assumption of responsibilities seems to be resulting in achievement of VQO's on some Districts, the program needs to be strengthened on others. One action planned in 1990 is to offer another paraprofessional training session to those District personnel needing such instruction.

The results of monitoring are **scheduled to be fully evaluated in the fiscal year 1992 Monitoring and Evaluation Report.**

PROTECTION

Item 1k:	Acres and Numbers of Wildfires
Frequency of Measurement:	Annually (October 1, 1988 to September 30, 1989)
Reporting Period:	5 years (FY 1992)
Variability Which Would Initiate Further Evaluation:	Unusual amount of person-caused fires over the 10-year average indicating a trend of a specific cause(s). Unusual amount of acres burned if unexplainable, such as unusually severe fire danger based on the burning index and the energy release component.

Discussion:

There was no natural prescribed fire program in 1989 because of National direction that all Fire Management Plans be reviewed prior to allowing any new ignitions to burn in light of the Yellowstone fires of 1988. The three Fire Management Plans on the Nez Perce are in various stages of review.

Monitoring Results:

ACRES AND NUMBER OF WILDFIRES

	Number of Fires			Acres Burned		
Types of Fires	1988	1989	10-Year Avg.	1988	1989	10-Year Avg.
Lightning Fires	122	310	126	102,236	8,850	13,300
Lightning Fires with Control Strategy	106	310	119	59,426	8,850	6,891
Lightning Fires with Contain/Confine Strategy	16	0	7	42,810	0	6,489
Person-Caused/Misc. Fires	21	16	15	3,707	38	1,970
Total Fires	143	326	141	105,943	8,888	15,270

NATURAL. PRESCRIBED FIRES (WILDERNESS)

	1988	1989	10-Year Avg.
Number of Fires	2	0	14
Acres Burned	520	0	3,420

Individual fire reports were completed on all fires (326 fires) in 1989.

Fuel treatment/prescribed fire was planned and utilized in accomplishing land management objectives.

Cost-effective fuel treatment/prescribed fire alternatives are being used to accomplish land management objectives.

Prescribed fire programs were found to be responsive to national and state air quality regulations.

Acres of activity and natural fuels burned in FY 89 under Fuels Management (Forest Fire Protection) totaled 1,529. The Forest Plan projection is 1,060.

Acres of activity fuels burned in FY 89 under Fuels Management (Brush Disposal) totaled 4,111 against a Forest Plan projection of 4,424.

The Forest Fire Management Program was not funded at the most cost-efficient level as described in the National Fire Management Analysis System.

Evaluation of Monitoring Results:

The Forest met the Forest Plan and Regional projections for treatment of activity and natural fuels.

Monitoring has shown a need to monitor prescribed fire activities.

The results of monitoring are **scheduled to be fully evaluated in the fiscal year 1992 Monitoring and Evaluation Report.**

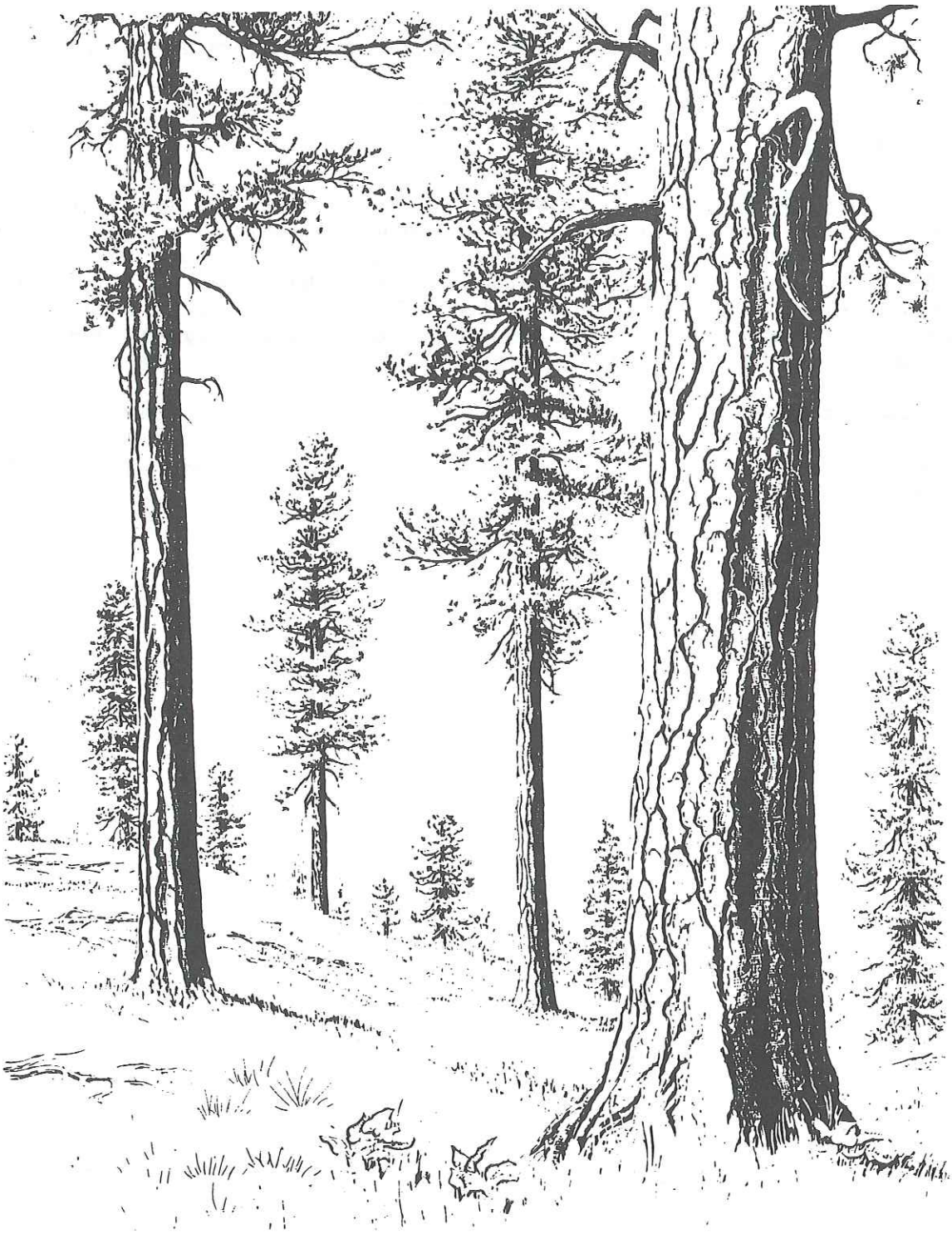
Item 7:	Insect and Disease Activity
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	Annually
Variability Which Would Initiate Further Evaluation:	Significant increases in population or damage levels of insects or diseases

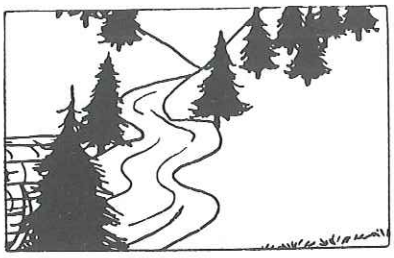
Monitoring Results:

Mountain pine beetle-infested lodgepole pine and ponderosa pine were reduced from 1988. Mountain pine beetle infestations, along with numerous other minor pests, remained relatively stable. Western pine beetle, fir engraver, and western budworm infestations declined from 1988. The balsam wooly adelgid appeared in subalpine and grand firs in 1989. Populations will continue to be monitored. These pests will be tracked as weather patterns change to see if natural decline will occur. Root disease continues to be a major problem in Douglas-fir and a minor cause of mortality in other tree species. (An aerial survey conducted by Regional Office entomologists is the data source).

Evaluation of Monitoring Results:

General insect and disease conditions don't warrant any control activities but will require monitoring in future years to determine trends.





FACILITIES

Item 2k:	Mitigation Measures Used for and Impacts of Transportation Facilities on Resources
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	5 years (FY 1992)
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 monitoring is conducted during project planning, implementation, and throughout the duration of the facilities' 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.

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

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

a. **Transportation Planning,** which is a detailed office effort using maps, photos, historical 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 road is built.

d. **Administration,** which assures compliance with the contract.

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:

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

f. **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.

g. **Stabilization of road surface and ditch lines over 6 percent 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.

h. **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 a very effective treatment; sediment leaving fill slopes is reduced by 75 to 85 percent.

i. **Seeding and fertilizing cut slopes, fill slopes, and other disturbed areas.** The objective is to reduce soil erosion from these sources after one growing season. Effectiveness has been rated at 85 percent or better once vegetation has become established.

Some of these measures are immediately effective, such as culvert dewatering. Slash filter windrows are effective immediately and during the first few years; after that they may become near capacity and in some instances begin to decompose. By that time though, revegetation becomes established and more effective.

Monitoring Results:

Implementation Monitoring: All engineering projects for FY 1989 included specific mitigation measures to reduce facilities' impacts on resources. The following mitigation measures were used (not all were used on every project).

- Windrowing of construction slash at the toe of the fill.
- Rock surfacing of the entire road or at contributing areas.
- Layer placement and compaction of major fills.
- Grass seeding and fertilization of cut/fill slopes and disturbed areas.
- Rocking of ditchlines.
- Incorporating critical logging system controls into the design to minimize length of time of exposed soil.
- 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.

The following Tables identify principal mitigation measures specified/implemented by project.

Table 2k-1 MITIGATION MEASURES SPECIFIED ON PROJECTS SOLD IN FY 1989

Project	Planned Sedi-ment Mitiga-tion (%)	Windrow Slash	Rock Surfac-ing	Rock Ditches	Grass Seeding Fertiliza-tion	Straw Bales	SPS 204	Layer Place Fills	Critical Logging Controls (designed into Package)	Tempo-rary Water-bars	Gates Traffic Control	Total project cost $M **
PUBLIC WORKS												
McComas Meadows (Crushing)	100				X	X				X		257
Clearwater Bridges	95		X	X	X	X	X	X		X		106
Bean Creek Rock ***	80		X	X	X	X	X	X		X		183
Newsome Creek Road ***	*	X	X	X	X	X	X					146
Elk Summit Bear Creek ***	80	X	X	X	X	X	X	X				137
Gospel Hump ***	80	X	X	X	X	X	X	X		X		418
Hamby Rehab ***	*	X	X	X	X	X	X					217
Dry Saddle (trailhead)			X		X	X				X		19
TIMBER SALES												
China Cow ***	60-80	X	X	X	X	X	X	X	X	X	X	488
Asbestos ***	80	X	X		X	X	X			X	X	81
Chair ***	60-80	X	X	X	X	X	X	X	X	X	X	1074
Black Cougar ***	80	X	X		X	X	X	X	X	X	X	108
Lodge Point ***	80	X	X	X	X	X	X	X	X	X	X	94
West Fork II ***	80	X	X	X	X	X	X	X	X	X	X	258
Lower Crooked River ***	60-80	X	X	X	X	X	X	X	X	X	X	301
Little Egypt ***	80	X	X	X	X	X	X	X	X	X	X	67

*These projects were designed to assist in providing an "upward trend" in the affected watersheds.

Cost of the mitigation measures is only a portion of the total project cost.

***These projects included reconstruction to address sedimentation concerns, safety and/or user serviceability.

Table 2k-2 ADDITIONAL MITIGATION ON PRIOR YEAR PROJECTS UNDER CONSTRUCTION

Project	Description
Boundary Ridge PW	Added pipe for drainage.
Bear Gulch TS	Added rock for stabilization- Added pipe for drainage- Added rock buttress on road 441.
Lower West Fork TS	Added rock for surface stabilization.
Peterson Salt TS	Added rock for subgrade reinforcement- Added pipe for drainage- Added special drainage structures to control erosion.
Station Point TS	Added rock for small areas of subgrade reinforcement.

Table 2k-3 MITIGATION ON MAINTENANCE PROJECTS

ROAD NO.	DESCRIPTION*	COST
470	Installed gabion structures and reconstructed cutslopes, drainage, and inlet structures.	$4000
337	Reinstalled washed out culvert.	$500
244	Reinstalled washed out culvert and installed drop inlet- repaired washed out fill slopes with pit run rock.	$1000
1803	Reinstalled two washed out culverts.	$1000
311	Reinstalled 3 culverts damaged from logging activity- repaired road.	$2000
649	Repaired slides- Installed drop inlets- Repaired fill slopes.	$3000
309	Repaired washed out fill slopes- Cleaned slides blocking drainage.	$2000
1858	Reinstalled culvert- Reconstructed washed out fill.	$500
2081	Repaired mass flow across road- Cleaned up slides and culverts on "closed" road system.	$2500

* All disturbed ground seeded.

MILES MAINTAINED

Maintenance Level	To Standard (Mi.)	Not To Standard (Mi.)
1	851	1085.9
2	408.4	205.4
3-5	650.5	0

Miles Brushing	(Roadside)	200
MUTCD Signing	New	40 each
	Maintenance	40 each

Table 2k-4 MITIGATION ON TRAILS- EROSION CONTROL

TRAIL	DISTRICT	EROSION CONTROL	REHABILITATION	COST $M
881 (CONTRACT)	8	126 WATERBARS	550 FEET	8.8

Table 2k-5 MITIGATION ON REHABILITATION PROJECTS THROUGH FRP FUNDING

NAME	UNIT	AMOUNT	DESCRIPTION	COST $M
Forestwide materials			Purchase seed, straw, and filter cloth for erosion control	8
Crushing	Ton	100,000	Crushed and stockpiled rock for replacement and new placement from the adams pit, solo creek pit, buckhorn springs, and van ridge	270
Upper Red drainage 1853 Erosion control	L.S. L.S.	1	Culvert placement, barriers, driveable dips,and seeding Site rehabilitation.	4 2.5
Orchard Creek pit	L.S.	1	Site rehabilitation, drainage control, and seeding.	7.5
Slate Creek gabions	L.S.	4	Material purchase only. National Guard completed construction.	3
2010-9916 Drainage	L.S.	1	Waterbars, dips, and seeding.	6

Interdisciplinary field reviews were performed on the following projects: 1) Placer Operation, 2) Green Wall Timber Sale, 3) Cole Porter Timber Sale, and 4) Lower Crooked River Timber Sale. In general, the review teams found that mitigation measures specified in the planning documents were incorporated into the project actions. The teams did identify, however, several items of special note. For the Green Wall Sale, the team noted the EA could have been improved regarding required mitigation. On the Lower Crooked River review, the team made note of the lack of variance attainment (from Forest Practices Act) for a log landing. The team also noted special design features employed to reduce sediment from reconstruction activities in the Lower Crooked River review. The complete reports for these reviews are on file in the planning records at the Supervisor's Office in Grangeville.

Implementation monitoring also occurs during the normal execution of the Forest's workload. The Selway Ranger District compiled monitoring documents on a Districtwide basis for FY 89. These documents indicate that appropriate mitigation measures were applied to field design changes that were executed in the administration of some reconstruction projects. These documents are also on file in the planning records at the Supervisor's Office in Grangeville.

In addition, the Forest Engineer and District Rangers reviewed all of the above projects and a majority of large sales and capital investment roads for compliance of mitigation measures, and found overall that measures were being implemented as required.

Effectiveness Monitoring: Effectiveness of mitigation measures is based upon information contained in the research summary "Reduction of Soil Erosion on Forest Roads," Intermountain Research Station General Technical Report INT-264 by Edward R. Burroughs Jr. and John G. King; "Effectiveness of Mitigation Practices and Specific Measures Associated With Facilities Proposed for Wingcreek-Twentymile EIS", Nez Perce National Forest, 1988; State Forest Practices Act and attendant BMP's; "Guidelines for Evaluating and Managing Summer Elk Habitat in Northern Idaho", Wildlife Bulletin No. 11, 1984, Idaho Department of Fish and Game; and in the "Nez Perce Access Management Guide", Nez Perce National Forest, 1988 as amended.

Based upon this information, it is expected that required mitigation for projects implemented in FY 89 will be met.

Full evaluation of the affects of facilities on resources and mitigation measure effectiveness will not be performed until 1992 when the comprehensive evaluation scheduled by the Forest Plan is to be completed. However, some preliminary results are available. In the Green Wall sale area, sediment mitigation effectiveness was estimated on some of the roads. On road 1106C and most of road 1104A, the objective of 60 percent mitigation was estimated to have been met or exceeded. On one pitch of 1104A the 60 percent objective was estimated to have not been met.

On the Selway District concern is raised that required design changes in reconstruction projects, though they employed appropriate mitigation measures, may have resulted in sedimentation greater than that expected during project planning.

Several roads were reviewed on the ground in the Wing-Twenty and Cole Porter environmental analysis areas by John G. King of the Intermountain Research Station. With the inclusion of several design considerations, along with strict haul control, he felt that the required sediment mitigation for the projects would be achieved.

No evaluations were made of the effectiveness of travel management mitigations.

Evaluation of Monitoring Results:

The measures and practices being used to reduce sedimentation are effective. Continual attention and sensitivity to the watershed resource, however, are required to ensure desired results are achieved. Flexibility, to incorporate research findings, and to take advantage of innovative construction and administrative techniques needs to be maintained.

Item 2l:	Adequacy of Transportation Facilities to Meet Resource Objectives and User Needs
Frequency of Measurement:	Continuous
Reporting Period:	5 years (FY 1992)
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 item 2l is continuous. Due to the nature of transportation systems and their impacts upon management and use of the Forest, this monitoring is both very important and very complex. Consequently, sources of monitoring information come from a variety of sources: facility maintenance records, environmental analysis 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:

The following table shows principal maintenance/rehabilitation projects undertaken in 1989 to meet user needs.

Table 2l-1 Maintenance/Rehabilitation Projects Through FRP Funding - Public Safety/User Needs

Project	Unit	Amount	Purpose/Description	Cost
464 Turnouts	Miles	11.0	Construction of turnouts for public safety	$2300
221 Grangeville-Salmon	Miles	29.8	Centerline and shoulder striping for public safety.	$12000
Forest signing			Purchase and Installation of signs to upgrade" on the ground" travel information.	$25000
221 Grangeville-Salmon	Miles	0.1	Base stabilization.	$4000
Wild Horse Bridge	Ea.	1	Abutment reinforcement.	$5000
Running Creek Bridge	Ea.	1	Decking, curbs, and rail replacement.	$21000
487 Cattle guard fence	Ea.	1	Control of range allotment	$5000
221 Grangeville-Salmon	Miles	1	Shoulder widening for public safety.	$15000

Project	Unit	Amount	Purpose/Description	Cost
Hamby Bridge railing	Ea.	1	Upgraded railing to safety standards.	$4000

In 1984, the Forest instituted a traffic surveillance program, using current state-of-the-art inductive loop equipment. The program initially started with 15 sites and has grown to 31 sites. Future monitoring and evaluation will involve moving surveillance sites throughout the Forest as warranted by changes in user trends.

Presently, we have 5 years of data collected from 13 surveillance sites and anywhere from 1 to 4 years on the remaining 18 surveillance sites. Analysis from sites with 4 or 5 years of data shows very little fluctuation in annual use volume. The volume fluctuation that we are experiencing is due to commercial (logging) use and fire traffic on a particular road. There does not seem to be any noticeable increase or decrease attributed to recreational use. We have deduced from our data that the highest recreational use on monitored roads is during hunting season.

The Forest has undergone a full year of implementation of the Access Management Guide. There has been some confusion in understanding the process and the documentation requirements but awareness and understanding of how the process ties to the Forest Plan is rising. Evidence of this can be found in recently completed NEPA documentation. Environmental Assessments from across the Forest are identifying detailed access management requirements for project proposals.

Documentation of access prescriptions for facilities on the Forest varies from District to District. Red River District and Selway District, in particular, have done very well in that they have completed, in at least draft form, analysis and documentation on virtually all their system roads and some of their trails. This information will be used in the Travel Plan update scheduled for 1990.

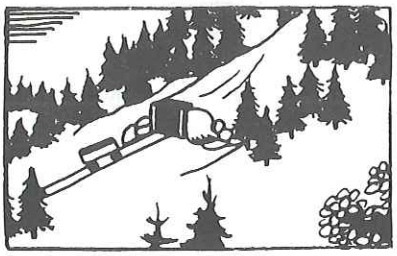
Several items pertaining to the Access Management Guide identified as needing improvement in the 1988 Monitoring Report have been addressed. Chapter II of the Guide has been rewritten to better explain traffic control strategies. The access management analysis worksheets have been revised to better track and tie together access prescriptions with on-the-ground signing and traffic control devices.

Field reviews of signing and traffic control devices were conducted prior to the start of the fall hunting season. These reviews showed that, while signing and consistency in the management of facilties is improving, there is still room for improvement in the areas of gate maintenance and the posting of Supervisor's orders and travel management signing.

Evaluation of Monitoring Results:

Effects of the access management program require time to be realized. Preliminary indication is that the Nez Perce Access Management program is working and that the Guide does provide the tools necessary for successful attainment of an integrated access management program. The recommendation is to continue with the current Nez Perce Access Management Program.

The results of monitoring are **scheduled to be fully evaluated in the fiscal year 1992 Monitoring and evaluation Report.**



MINERALS

Item 2m:	Adequacy of Mining Operating Plans and Reclamation Bonds
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	Annually
Variability Which Would Initiate Further Evaluation:	Operating plans which need to be updated or modified; bonds which need to be increased, decreased, or returned; or case files which can be closed out.

Monitoring Results:

Out of 71 active Plans of Operation, 4 need modification or updating to more accurately describe existing surface disturbance and/or changes in the operation. In three of these cases, the Districts are working with the operators to update their Plans. In one case, the has been unable to gain the cooperation of the operator and the operator has been placed in non-compliance with his approved Plan. A review of the bonds associated with these Plans indicated that 11 need to be increased or decreased to more accurately reflect reclamation costs. Five reclamation bonds, associated with Plans of Operation which are no longer active, need to be released. The following table displays this data:

Ranger District	Active Plans of Operation	Plans Needing Modification	Bonds Needing Revision	Bonds Needing Release
Salmon River	16	0	0	0
Clearwater	2	0	0	0
Red River	9	2	2	0
Moose Creek	0 [1]	0	0	0
Selway	0 [1]	0	0	0
Elk City	46	2	9	5
TOTAL	71	4	11	5

[1] No plans administered in 1989

The Forest also conducted an interdisciplinary field review of two active operations to determine how well they were meeting Forest Plan direction. Both projects predated Forest Plan implementation.

The review of one of the operations indicated that, while the activities were substantially in compliance with the approved Plan of Operations, resource damage had still occurred as a result of soil erosion from the mine site. Although adverse effects to water quality were observed, the interdisciplinary team had a difficult time determining how the water quality objectives in Appendix A of the Forest Plan would apply to this mining operation. Interim reclamation measures were taken during the summer of 1989 to better stabilize the site.

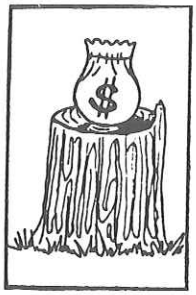
determining how the water quality objectives in Appendix A of the Forest Plan would apply to this mining operation. Interim reclamation measures were taken during the summer of 1989 to better stabilize the site.

The review of the other operation indicated that it was in compliance with the approved Plan of Operations and Forest Plan direction for all resources.

Evaluation of Monitoring Results:

In most instances, these monitoring results would indicate that the Forest is carrying out its minerals management responsibilities in conformance with Forest Plan direction. In all instances where approved Plans of Operations do not adequately describe surface-disturbing activities, remedial action is being taken by the Districts to modify the Plan or to seek compliance from the operator. The greatest discrepency is occurring with respect to reclamation bonding. Approximately 15 percent of all operations on the Forest are not sufficiently bonded to insure adequate reclamation. In the future, emphasis needs to be placed on obtaining adequate bonds and on periodically reviewing bonds to determine if they need to be increased (or decreased). Delay in returning bonds upon completion of reclamation was only identified on one district.

As a result of Forest Plan monitoring, a question was raised with respect to the application of water quality guidelines in Appendix A in the Forest Plan to minerals activities. This question needs to be resolved.



ECONOMICS

Item 3:	Cost of Implementing Resource Management Prescriptions
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
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 effected will necessitate a Forest Plan Amendment.

The Forest's Outyear Program which tracks the funding levels needed to fully implement the Forest Plan is reviewed and updated annually.

Monitoring Results

Review and validation of Forest Plan program costs identified calculation errors, oversight in adequate resource coordination and support costs, additional responsibilities such as sensitive wildlife species, and increases needed as the result of field verification during implementation and monitoring. These adjustments have been made to the Forest's Outyear Program.

Table 1, found in the beginning of this report, displays predicted average annual costs, budget allocations, and actual expenditures for the fiscal years 1988 and 1989. Dollars have been adjusted to constant 1989 values.

Table 4 displays projected annual costs of full implementation for the outyears FY 1990 - 1997. This table replaces Appendix K in the Forest Plan. Corresponding activities and outputs for the Forest Plan period are displayed in Table 2 and replaces Table II-1 in the Forest Plan.

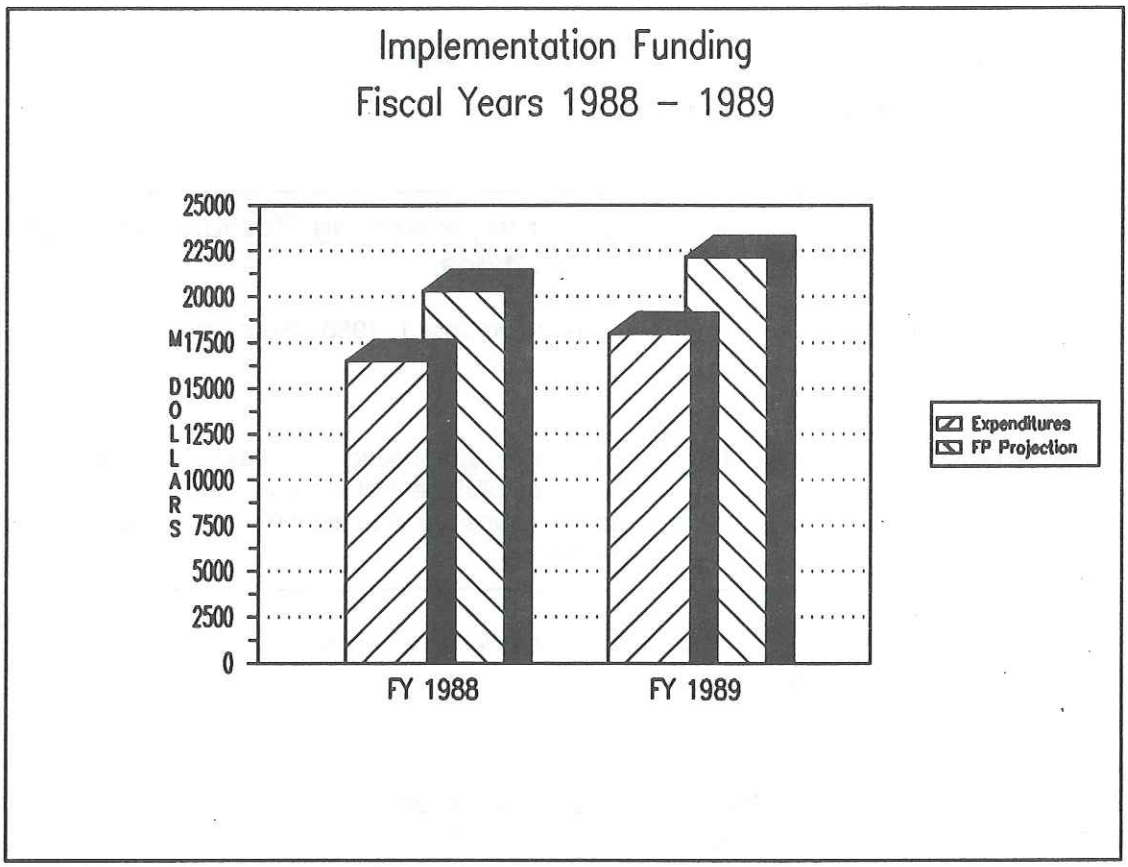
Funding for fiscal years 1988 and 1989 was 80 percent of what is needed to fully implement the Forest Plan.

Evaluation of Monitoring Results

While decreased budgets at this time are not expected to change the long-term goals and objectives of the Forest Plan; the projected activity and output levels of some resources may not be attained.

As displayed in Tables 1 and 3 of this report, targets have been reduced to reflect budget shortfalls.

A detailed evaluation of costs and their effects on the Forest Plan's long-term goals and objectives will be conducted during the five year review scheduled for fiscal year 1992.



The above chart reflects funding levels lower than predicted in the Forest Plan. This reduced funding level does not appear to be constraining Forest Plan implementation since long-term goals and objectives are being attained.

Item 3a:	Forest Resource-Derived Revenues
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	5 Years (FY 1992)
Variability Which Would Initiate Further Evaluation:	Any change in resource-derived revenues altering the implementation Forest Plan long-term goals and objectives will necessitate a Forest Plan Amendment.

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 priced 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

Resource	Forest Plan Revenues	FY 1988 Revenues	FY 1989 Revenues
Timber	$13,252,884	$4,700,782	$7,269,715
Range	$60,601	$35,591	$37,296

Timber Revenues

The differences illustrated in the above timber revenues are due to two factors. First, we are not experiencing stumpage values as high as predicted in the Forest Plan. Second, timber harvest in fiscal years 1988 and 1989 was 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 programatic allocation of the Forest Plan.

Revenue increase experienced in 1989 over 1988 can be attributed primarily to the increase in timber sale receipts. More timber was harvested in 1989, perhaps a function of more favorable market conditions.

Range Revenues

Differences in range revenues can be attributed to changes in grazing fees and a change in how revenues are calculated.

Revenues displayed in the Forest Plan Final EIS were incorrectly calculated. The Forest modeled animal unit months (AUMs) which are determined by the amount of forage needed for a thousand pound animal for one month. Range revenues are based on authorized use which is a function of the actual number of grazing animals. The unit of measure for authorized use is a head month which is a grazing animal six months or older. The range revenues in the Forest Plan were incorrectly calculated by applying the 1986/1987 grazing fee against the number of AUMs instead of the amount of projected authorized use.

The 1986/1987 grazing fee used in the development of the Forest Plan was $1.35 per head month for cattle and horses and $0.27 per head month for sheep.

Fiscal year 1989 grazing fees are calculated at $1.86 per head month for cattle and horses and $0.37 per head month for sheep.

While the Forest provided forage for 43,000 AUMs, only 19,761 cattle and horse head months and 1,462 sheep head months for a total of 21,223 head months were billed in fiscal year 1989.

Evaluation of Monitoring Results

At this time the difference in revenues received and expected are not expected to change the Forest Plan's long-term goals and objectives. A detailed evaluation of revenues their effect on the Forest Plan's long-term goals and objectives will be conducted during the five year review scheduled for fiscal year 1992.

EFFECTS ON ADJACENT LANDS, RESOURCES, OTHER AGENCIES

Item 8:	Effects of National Forest Management on Lands, Resources, and Communities Adjacent to the Forest
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	Annually
Variability Which Would Initiate Further Evaluation:	Unacceptable effects determined by the Forest Interdisciplinary Team.

Discussion:

The management direction in the Forest Plan is intended to provide a balanced consideration of Forest resources in meeting the present and future needs of society as well as those of future generations. It relies on the application of scientific knowledge, conservation leadership, and wise stewardship in partnership with other public agencies, tribal governments, communities, and others that are interested and affected by Forest management.

Although 2 years of management under the Forest Plan is insufficient to identify firm trends developing from implementation of the Forest Plan direction, concerns have been expressed.

Monitoring Results:

Efforts to Improve Anadromous Fish Runs: Some local business people feel the efforts to improve anadromous fish runs in the Elk City/Red River area are having an adverse impact on business. The fishing season has been limited on Red River during the summer months to protect the spawning salmon. It is believed this has reduced the number of campers and summer recreational people utilizing the area because most people want to be able to fish close to where they camp. Many businesses in the Elk City/Red River area are dependent on tourism and recreation.

Effects of Increased Recreation Use on Local Residents: Some local residents are feeling the effect of increased recreation use within our Wild and Scenic River Corridors.

Changes (Any Kind) Within Wild and Scenic River Corridors: Some members of the public have the perception that changes are prohibited in Wild and Scenic River Corridors.

Clear Creek Coordinated Resource Management Plan: A concern has been expressed about monitoring water temperatures in Clear Creek. Water temperature monitoring was conducted on Clear Creek in 1988 in conjunction with a Coordinated Resource Management Plan.

Sales of Miscellaneous Forest Products Such as Beargrass and Mushrooms: Permits are required for mushrooms, but not other miscellaneous products. Charges and permit language are not standardized. Environmental concerns have not been researched and documented.

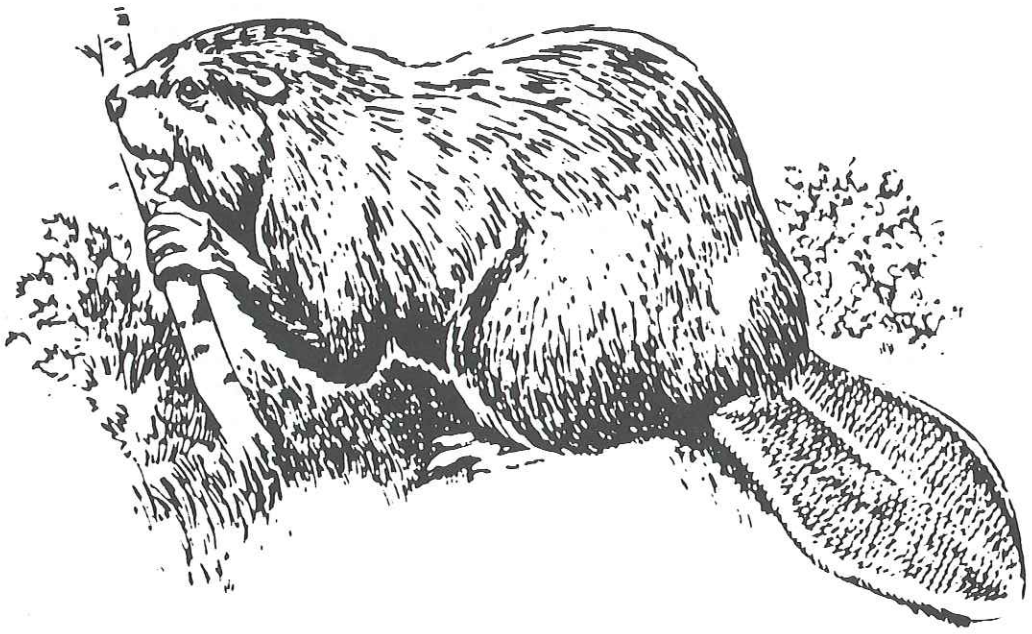
Evaluation of Monitoring Results:

The Forest needs to continue to monitor the effects on the local public of improving the anadromous fish runs and of increased recreation use in the Wild and Scenic River Corridors.

Traffic impacts on residents who live in or near the Wild and Scenic River Corridors may need to be addressed in the next planning cycle.

Miscellaneous forest products permit language needs to be standardized to ensure consistency of charges and permit requirements. Environmental concerns associated with the harvest of miscellaneous forest products needs to be researched and documented.

Direction for outfitter and guide operations needs to be developed with input from our recreation service partners and clients as well as the non-outfitter Forest users.



Item 9:	Effects of Other Government Agencies' Activities on the National Forest
Frequency of Measurement:	Annually (October 1, 1988 - September 30, 1989)
Reporting Period:	Annually
Variability Which Would Initiate Further Evaluation:	Unacceptable effects determined by the Forest Interdisciplinary Team.

Monitoring Results:

State of Montana and the State of Idaho (Air Quality): From time to time the State of Montana and the State of Idaho have asked us to curtail our burning for air quality purposes. This did not happen in FY 1989.

State of Idaho Department of Lands: Under our cooperative agreement with the State of Idaho Department of Lands, cooperation and exchange of firefighting resources is continuing. This has been of benefit to the Forest in fighting Forest fires.

State of Idaho Department of Parks and Recreation: The State of Idaho Department of Parks and Recreation provided funds, equipment, and people to groom ski and snowmobile trails. They also provide dollars to plow parking facilities for these activities. The Department is providing funding for the construction of a recreation vehicle (RV) dump station at the Red River Ranger Station. These programs benefit the Forest and provide services the public demands.

Bonneville Power Administration (BPA) (Fisheries): The Bonneville Power Administration (BPA) is involved in a challenge cost-share fish habitat improvement project with the Forest. This project has been ongoing since 1983. In 1989, BPA contributed a total of $123,000 toward habitat improvements in Red River, Crooked River, and South Fork Clearwater River. The Forest matched this amount of money towards habitat improvements on streams throughout the Forest. The total project is scheduled to last until 1991 with a total commitment of $1.4 million from BPA. The Forest expects to spend approximately $1.0 million.

Idaho Department of Health and Welfare: This agency administers the Idaho Water Quality Standards. The Forest is bound to follow these standards through the Clean Water Act. During 1989, personnel from this Department participated in Forest interdisciplinary monitoring team reviews of two timber sales and provided technical support for the Perseverence Placer operation. This cooperative work has resulted in closer working relationships and a better perspective of the Department's understanding of the Forest's efforts to implement the Forest Plan.

Idaho Department of Water Resources (IDWR): During fiscal year 1989 the Forest consulted with the IDWR with respect to suction dredging activities in conjunction with wilderness validity exams. The Department is the permitting authority for all stream channel alterations and they were consulted on fish habitat improvements and sediment trap construction.

Idaho Department of Lands: State of Idaho and Forest Service access management on winter range is not well coordinated. Effectiveness of Forest Service road closures in big game winter range areas is reduced when State roads connecting with Forest Service roads remain open.

The Department participated in Forest Service employee training on Best Management Practices for the protection of water quality from timber harvest activities. They also provided technical support for the Perseverence Placer operation.

State of Idaho Outfitters and Guides Licensing Board: Through formal agreement, the Forest Service and the Board coordinate the permit process for outfitters and guides providing public services on National Forest System lands.

U.S. Army Corps of Engineers (COE): The COE consulted on proposed sediment and pond construction projects located in wetlands. They assisted in identifying alternative non-wetland sites.

Nez Perce Tribe/Columbia River Inter-Tribal Fish Commission: In FY 1989 the Forest negotiated with the Nez Perce Tribe the settlement of their appeal of the Forest Plan.

The Nez Perce Indian Tribe assisted the Forest in cultural awareness, recruitment, training and firefighting activities. This assistance was of value in helping the Forest diversify the workforce and accomplish resource management objectives.

Negotiations are continuing on the Columbia River Inter-Tribal Fish Commission's appeal of the Forest Plan. This includes negotiators from Forest Service Regions One, Four, and Six. The main effects of settling the appeal with the Tribe and the negotiations with the Commission are:

1. The refinement, type, and amount of wildlife- and fisheries-related data that's being collected and analyzed for project implementation.

2. Stronger acknowledgement of Treaty rights on public lands within the Nez Perce National Forest.

Idaho Department of Fish and Game: Participates, on a regular basis, in the planning process and in reviews of Forest activities. The Department's input in the areas of access management, and the scheduling and administration of activities has influenced Forest practices. They also participated in cooperative studies involving fish and wildlife resources.

Access Management Guidelines are not coming up with answers that address IDFG's new criterion of bull vulnerability. The Department is seeking more restrictive coefficients than currently in use. The new criterion was developed subsequent to issuance of the Forest Plan.

Idaho State Historical Preservation Office (SHPO): The Idaho State Historic Preservation Office 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. In 1989, we consulted with SHPO and the Advisory Council on Historic Places two times to receive permission to make modifications to historic buildings.

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 work results.

Idaho County: The County maintains the Salmon River Road, Dixie Road, Crooked River Road, etc. under cooperative agreements, with good results. Coordination of maintenance soil disposal by the County has resulted in a positive trend for sediment reduction.

U.S. Fish and Wildlife Service: Participated on a regular basis in assessing effects on Threatened and Endangered species during the Environmental Analysis process.

Idaho National Guard: The entire 116th Engineering Battalion held annual training on the Forest. They participated in a variety of mutually beneficial projects.

Idaho State Board of Aeronautics: The Board periodically inspects Moose Creek and Shearer Airfields. The results of the inspections are timely.

Evaluation of Monitoring Results:

In fiscal year 1989 the Forest benefited from cooperative agreements with other government agencies and the Nez Perce Indian Tribe. These agreements resulted in the establishment of closer working relationships, the sharing of technical support, project cost sharing, and better resource protection.

We discovered an opportunity to improve our cooperation with the Idaho Department of Lands and the Idaho Department of Fish and Game on managing access for big game management purposes.

III. RESEARCH NEEDS

The following research needs were identified in the first Annual Monitoring and Evaluation Report (FY 1988):

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.

2. There is a need to develop and evaluate methods to monitor effects of timber management on riparian areas.

3. Systems for monitoring revenues and costs annually need to be refined to facilitate evaluation.

The following additional research needs were identified in the Second Annual Monitoring and Evaluation Report (FY 1989):

1. Moose winter range questions need to be addressed:

   a. What silvicultural system best maintains the yew component in the grand fir/Pacific yew association?

   b. How can fuels be managed and still retain Pacific yew?

   c. What is the optimum spatial arrangement of yew throughout the Forest?

   d. What is the optimum stand size for yew?

   e. How many acres of the grand fir/Pacific yew association exist on the Forest/

   f. Does the Forest Plan adequately address the definition and protection of key moose winter habitat which has no Pacific yew component?

2. Is anadromous fish run improvement work having an adverse impact on business in the Elk City/Red River area?

3. Determine the effect on fish populations resulting from fishing pressure at fish habitat improvement structures.

4. The consequences of repeated burning, and of maintenance of forest ecosystems in prolonged seral brush stages need to be evaluated.

5. Determine the relative effectiveness of fertilization compared to burning for improving wildlife habitat.

6. Determine if habitat improvement measures are improving stream habitats to the stated objectives in the Forest Plan.

IV. PROPOSED AMENDMENTS

Following are proposals to amend the Forest Plan.

Chapter V, page V-6, Table V-1:

A recommendation has been made to change the title of Item 1k to read -- Acres and Number of Wildfires and Prescribed Fires.

Chapter V, page 6, Table V-1:

A recommendation has been made to add a monitoring item for range management to this table. The following is how this insertion into the table would read if this recommendation is approved:

NFMA Requirement 36CFR 219	Item No.	Action, Effects, or Resources to be Measured	Expected Precision	Expected Reliability	Reported Time
.12(k)(1)	1l	Range Analysis and Allotment Management Plan Updates	High	High	Annually

Rationale for Recommendation:

The Forest has 42 active allotments. The Forest has not accomplished any Allotment Management Plan updates since approval of the Forest Plan. More emphasis needs to be placed on this effort to insure quality range vegetation management, accomplishement of fishery/water quality objectives, successful tree regeneration and adequate forage availability on big game winter range.

Chapter V, page V-7, Table V-1:

A recommendation has been made to change the title of Item 5 to read, "Site-Specific Examinations to Determine Suitability of Land for Timber Management."

Rationale for Recommendation:

During the environmental assessment process, site-specific analysis should be done on all lands to determine whether or not they are suitable for timber management. Currently, only unsuitable acres are monitored for suitability. Suitable lands should also be checked to see if they, indeed, are suitable.

Chapter V, page V-7, Table V-5:

A recommendation has been made to add a monitoring item for Wild and Scenic River management. The following is how this insertion into the table would read if this recommendation is approved:

NFMA Requirement 36CFR 219	Item No.	Action, Effects, or Resources to be Measured	Expected Precision	Expected Reliability	Reported Time
.12(k)(2)	2n	Management of Designated or Eligible Wild, Scenic, or Recreational River Segments	Moderate	Moderate	5 Years

A recommendation has been made to add the following language to Appendix O for Wild and Scenic River Management.

Appendix O, page 18, item 2n:

> Each year, Districts will assess whether designated or eligible wild, scenic, or recreational river segments are being managed according to approved management plans or Forest Plan direction. The annual narrative will describe actual or proposed activities or management strategies that occurred during the year, and whether such activities or strategies complied with area management direction.

Appendix O, page 0-5, item 1k:

> A recommendation has been made to add the following language to the existing statement:
>
> Prescribed fire, planned and unplanned, is monitored to determine if cost effective alternatives have been emphasized and if it has been planned to maintain healthy, dynamic ecosystems that meet land management objectives. These monitoring elements can be reviewed and documented by an interdisciplinary team.
>
> Prescribed fire influences air quality. Prescribed fire programs must be responsive to National, State and Local air quality regulations and agreements. Monitoring prescribed fire programs is essential to see that they adhere to these air quality regulations and agreements. Preparation and prescribed fire plans must address air quality.

Appendix O, page 3, item 1g:

> A recommendation has been made to change the item title to read - Item 1g and 1l.
>
> Another recommendation is to change the wording of item 1g and 1l in Appendix O to read:
>
> In the field, livestock numbers are spot-counted annually as they enter the Forest. The annual grazing statistical report provides permit information by District and Forest. This report along with other file information will be used to summarize permitted grazing use.
>
> The Forest will monitor 10 percent of the existing grazing allotment management plans annually to evaluate how closely standards and direction in the Forest Plan are being accomplished.

V. PLAN AMENDMENTS

Amending the Nez Perce National Forest Plan is a normal process of improving our ability to care for the land, and amendments to the Plan are anticipated. Eight amendments have been issued and several others have been proposed. They are listed in the "Proposed Amendments" section of this report.

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 Forestwide 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).

Amendment #2: Clarifies the Forest's definition and management of motorized recreation on the Nez Perce National Forest.

Amendment #3: Modifies standards listed in Chapter II (Forestwide 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 and 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.

Amendment #4: Modifies standards listed in Chapter II (Forestwide 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.

Amendment #5: Corrects errors displayed in the Nez Perce National Forest Plan Appendix A, Forest Fishery/Water Quality Direction by Prescription Watershed. These objectives provide management direction in terms of the maximum estimated increase in sediment over baseline conditions that can be approached or equaled for a specific number of years per decade.

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

Amendment #6: Corrects errors in Forest Plan Chapter II (Forestwide 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.

Amendment #7: Clarifies language found in the following sections:

Chapter II (Forestwide 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.

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 and 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.

VII. 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 1989. Members of the Forest Interdisciplinary Monitoring Team are designated with an asterisk (*).

UNIT	NAME	AREA OF EXPERTISE
Supervisor's Office	Steve Lanigan *	Fisheries, Wildlife
	Nick Gerhardt *	Watershed
	Dick Artley	Timber
	Spike Thompson *	Range
	Roger Ward *	Silviculture
	Liz Mathews *	Minerals
	Joe Bonn *	Facilities
	Kevin Elliott *	Implementation Analysis, Amendments, and Economics
	Brian Vachowski *	Recreation
	Jim Heid	Cultural Resources
	Ollie Goldammer	Fire
	Pat Green *	Soils
	Gary Kellogg *	Land Management Planning Specialist and Forest Interdisciplinary Monitoring Team Leader
	Steve Blair	Wildlife
	Kathy Anderson	Fisheries
	Laura Smith	Non-computerized Graphics
	Bridget Blom	Technical Support
	Gayle Hauger	Technical Support
Salmon River Ranger District	Jerry Thompson *	Salmon River District Monitoring Coordinator/ Silviculture/Timber
	Bobby Lackland	Recreation
	Tim Schommer	Wildlife
Clearwater Ranger District	Sue Paradiso *	Forest Plan Impementation/Monitoring/ Clearwater District Monitoring Coordinator
	Tim Belton	Wildlife, Fisherieseries, Watershed, Minerals,Range
	Rodney Windell	Timber
Red River Ranger District	Doug Wulff	Timber
	Rogers Steed *	Red River District Monitoring Coordinator/Silviculture
	Fred Haas	Recreation
	Kim Clarkin	Watershed, Fisheries
	Laurie Simmonds	Range
	Nick Hazelbaker	Wilderness
	Steve Babler	Wildlife
Selway Ranger District	Jerry Bird *	Selway District Monitoring Coordinator/ Visuals, Watershed, Minerals, Protection
	Andy Hibbs	Silviculture, Recreation
	Steve Weaver	Wildlife, Fisheries, Riparian
	Bill Wilkinson	Recreation, Cultural Resources,Timber, Reforestation, ORV
	Tom Mendenhall	Wildlife, Fisheries, Riparian

Elk City Ranger District	George Regas *	Elk City District Monitoring Coordinator
	Jeff Hammes	Visuals
	Cliff Mitchell	Recreation, Minerals, Facilities
	Kim Mitchell	Riparian, Soil and water, Wildlife
	Howard Sargent	Silviculture
	Klaus Leidenfrost	Fisheries and Wildlife
	Bill Baer	Fisheries and Wildlife
	Steve Hatting	Timber
	Mary Ann High	Wildlife
	Tom Schmidt	Minerals
	Cynthia Onthank	Fisheries and Wildlife

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

Tom Kovalicky	Forest Supervisor
Dave Fischer	Timber, Range, and Minerals Staff Officer
Mike Cook	Forest Engineer, Contracting, Purchasing, and Communications Staff Officer
Joe Bednorz	Planning, Budget, and Information Systems Staff Officer
Dave Poncin	Recreation, Wilderness, Fire, and Lands Staff Officer
Rick Stowell	Fisheries, Wildlife, Watershed, and Soils Staff Officer
Bob Abbott	District Ranger, Salmon River Ranger District
Steve Solem	District Ranger, Clearwater Ranger District
Steve Williams	District Ranger, Red River Ranger District
Dennis Dailey	District Ranger, Moose Creek Ranger District
Gloria Flora	District Ranger, Selway Ranger District
Jim Wiebush	District Ranger, Elk City Ranger District

VII. APPROVAL

I have reviewed the annual Forest Plan Monitoring and Evaluation Report for fiscal year 1989 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 Management Teams on proposed changes to the Forest Plan and will process the necessary Amendments after appropriate notification.

This report is approved:

Tom Kovalicky

TOM KOVALICKY
Forest Supervisor

2-27-90
Date

APPENDIX

ACTION ITEMS

Action items are concerns that were identified during fiscal year 1989 monitoring that need to be acted upon. Action to resolve these concerns will be taken in 1990.

Item 1: For practices that don't meet the Idaho Forest Practices Act, how do we ensure that we get a variance?

Item 2: What constitutes an opening for vegetative management purposes?

Item 3: Application of the sediment model as it relates to reconstruction and future reduction of sediment yield needs to be clarified.

Item 4: Re-examine assignments of elk summer habitat objectives (see FP, page II-18, item 6) to ensure manageable habitat units are delineated that can be coordinated with timber harvest, access management, and livestock use. Current assignments in some areas are fragmented and effects of proposed activities cannot be modeled using the "Guidelines for Evaluating & Managing Summer Elk Habitat in North Idaho." Establish procedures for examining manageability during project planning and involvement of the Idaho Department of Fish and Game, the Nez Perce Tribe, and other affected parties.

Item 5: The Forest Plan decade for modeling sediment yield and entry frequencies began in FY 88 (10/87). Project analyses will consider activities in the decade prior to the Forest Plan to determine the effect of past actions/activities on proposed projects.

Item 6: How do we modify TSMRS to track small inclusions of management areas such as riparian areas?

Item 7: Concern that monitoring cost will continue to increase as public concern over the accuracy of the Forest Plan outputs increase. As monitoring costs rise, the burden of funding the cost from District project funds will become more difficult. Recommend that Forest management codes be created and that all monitoring activities be charged as worked.

Item 8: How should managers consider the effect of water yield increases in small drainages?

Item 9: How is the Forest going to accomplish range management plan updates?

Item 10: How can the Forest develop a systematic method for monitoring ORV use?

Item 11: How to apply the water quality guidelines in Appendix A of the Forest Plan to mineral activities?

Notes