NEZ PERCE NATIONAL FOREST

16TH & 17TH ANNUAL MONITORING AND EVALUATION REPORT

FISCAL YEAR 2003 AND 2004

INFORMATION REQUESTS AND COMMENTS

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

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INTRODUCTION

The Nez Perce National Forest has continued the monitoring program in 2003 and 2004. A lodgepole pine beetle epidemic, increased by drought conditions, continues to affect the Nez Perce landscape and cause widespread mortality. Forest use and perceptions of the forest continue to be influenced by these types of events, which in turn are affecting both local and national policies. In addition to the standard Forest Plan requirements, we continued to monitor and evaluate these and other ecosystem and social trends in 2003 and 2004.

In 2003, the Nez Perce along with the Clearwater National Forest, initiated the process to revise its Forest Plan. At the forefront of this process is a review of forest monitoring and evaluation results and other information to determine which parts of the plan are in the greatest need of revision. The entire revision process will take several years and will include many opportunities for public involvement.

Forest Land and Resource Management Plans (Forest Plans) are intended to provide long-range management direction for each National Forest. Forest Plans provide guidance for balancing the physical, biological, and social components of forest management in the form of goals, objectives, standards, and guidelines.

The Nez Perce Forest Plan was approved by the Regional Forester on October 8, 1987. The Forest Plan has been amended 32 times since this date.

MONITORING ACTIVITIES

Monitoring closes the loop between planning and implementation. This report assess how well we are implementing the Forest Plan, whether Forest Plan direction is effective for achieving management goals, whether implementation of the Forest Plan is achieving the predicted effects, and whether the assumptions made in developing the plan remain valid. Monitoring provides the foundation on which we will build the Forest Plan revision. Monitoring is not a special, one-time, activity or emphasis item. Rather, it is an integral part of every project and manifests itself most successfully in the day-to-day administration and documentation of each project.

Monitoring on this Forest consists of a range of activities. Plan objectives and standards are reviewed as part of NEPA analysis and decision-making. Ongoing projects are reviewed in the field in the context of this continuing awareness. Interaction with the public through contact in the field and in field offices, and through public comment also serves as effective feedback to staff.

The actual preparation of this report consisted of the compilation of respective staff observations for their areas of responsibility.

Monitoring results are reported under three headings: Implementation Monitoring, Effectiveness Monitoring, and Validation Monitoring.

1. **Implementation Monitoring** (sometimes called compliance monitoring) determines if management actions are implemented according to NEPA decisions. For example, making sure a specific required mitigation measure is implemented. The question being asked is: "Did we do what we said we were going to do?" In this report, implementation monitoring is the type of monitoring assumed, unless otherwise specified.

2. **Effectiveness Monitoring** often occurs over a period of years and determines whether actions are effective in meeting management direction and objectives. For example, does a standard for

retaining a certain amount of woody debris on a site effectively maintain soil productivity and reduce erosion? The question being asked in this type of monitoring is: "Did the management practice do what we wanted it to do?"

3. **Validation Monitoring** often occurs via research projects. It determines if assumptions underlying planning and analysis (including computer models) key elements are correct. The question being asked here is: "Are the assumptions being used to make resource predictions and decisions correct and are we progressing toward Forest Plan goals and objectives?"

Two other types of monitoring are presented for some resources. **Base line monitoring** establishes a basis for assessing change from current conditions, making comparison to future conditions possible. **Tracking** is useful as a way to report on the additional activities we are engaged in, such as number of wildfire ignitions and law enforcement incidents.

The Forest Plan monitoring requirements still provide the basic framework for the monitoring today. However, the actual monitoring techniques have evolved and improved over time to provide a more realistic, accurate, and efficient monitoring package to evaluate the effects of management. Some of the newer techniques do not fit the original framework as well as older techniques, but the format has remained unchanged to provide some continuity until the upcoming Forest Plan revision. There will be changes in monitoring at that time and it will likely be more consistent and comprehensive throughout the Northern Region. We continue to develop and assess methods for data acquisition and interpretation useful for evaluation.

For each resource discussed in this report we present the objective of the monitoring, the data source, frequency, acceptable level of variability, evaluation, and the results for the fiscal year (i.e. 2003 & 2004). The item number following most resource titles refers back to the Forest Plan monitoring item, found in Table V-1 of the Forest Plan (pages V-6 and V-7). The sections without item numbers are additional information we provide, but are not required Forest Plan monitoring.

Evaluation is analysis and interpretation of monitoring results. Evaluation assists in reviewing conditions on Nez Perce National Forest lands, as required at least every 5 years by the National Forest Management Act Regulations. Actions resulting from evaluation are reported in the **Plan Amendments,** Section 5, of this report and **what practices need to be changed based on monitoring results** listed under each resource area portion of Section 2. The evaluation that occurs as part of implementation monitoring can lead to immediate operational changes on a project, whereas effectiveness or validation monitoring evaluation can lead to future planning or management changes.

Monitoring and evaluation focus on land and resource management facets most critically affecting 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; and
- Items where accomplishment of an objective or meeting of a standard determines the ability to achieve another goal or objective.

Management activities were monitored and evaluated for each Forest Plan Monitoring Requirement (USDA, 1987a) (USDA, 1987b). This was done to determine how well objectives were met and how closely management standards were applied. Informal and formal field reviews were conducted on a variety of projects during fiscal year 2003 and 2004. These are documented in various ways, including daily diaries, file notes, and letters. Reviews are often conducted as routine inspections of timber sales,

road contracts, mining operations, or while planning or implementing other projects. Key field reviews are summarized in Section D-Other Monitoring.

The development of this monitoring report was postponed during the last few years due to other priorities on the Forest. The monitoring information was collect on an annual basis, but the report was not completed. To catch up and get back to the annual schedule, this report summarizes results of Forest Plan monitoring and evaluation conducted from October 1, 2002, through September 30, 2004

This report is organized into seven sections:

1. **Monitoring and Evaluation Results and Trends**:
    a. Compares planned outputs and services with those actually accomplished
    b. Discusses budget and expenditure history and future projections

2. **Forest Plan Monitoring Requirements:** Summarizes monitoring findings for each Forest Plan Monitoring Element.

3. **Other Monitoring**

4. **Research Needs**

5. **Forest Plan Amendments:** (as of September 30, 2004)

6. **List of Preparers**

7. **Forest Supervisor Approval**

8. **Citations**

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SECTION 1: MONITORING AND EVALUATION RESULTS AND TRENDS

Were outputs and services provided as predicted?

The tables below compare FY 2003 and FY 2004 Forest Plan project activity and output levels, assigned scheduled work targets and actual activity and output accomplishments. Forest Plan project outputs and activities (USFS, 1987, pp II-9 - II-10) are shown in the **Forest Plan Projection** column. Targets represent levels of work assigned to the Forest by the Regional Forester. Targets have been adjusted from projected Forest Plan levels to reflect current funding levels. Accomplishments show work completed in FY 2003 and FY 2004. Some elements changed between FY 2003 and FY 2004, which reflects changes to the Management Attainment Report (MAR) reporting requirements made by the Regional Forester. The reporting period for some monitoring items may be two or more years. However, information from all monitoring items is reported annually on this table. Annual monitoring data will be evaluated in the report at the end of the stated reporting period (from 1 to 5+ years).

Table 1: Forest Plan projection, FY 2003 target and FY 2003 accomplishments and FY 2004 target and accomplishments. ***(MAR Report data) "-" indicates no data collected due to change in reporting of MAR***

Description	Unit of Measure	Forest Plan Projection	FY 2003 Target	FY 2003 Amount Accomplished	FY 2004 Target	FY 2004 Amount Accomplished
Environmental Compliance						
Manage ECAP/AM	Actions	N/A	N/A	2	1	1
Road Construction & Maintenance						
Miles of Road Reconstruction	Miles	0-26	N/A	2	-	-
Miles of Road Decommissioned	Miles	N/A	-	-	8	12
High Clearance Roads as OML 1 or 2 maintained	Miles	N/A	29	-	170	170
Passenger Car Roads as OML 3, 4 & 5 maintained	Miles	N/A	18	-	430	430
Percent of Road Analyses Completed	Percent	N/A	N/A	10%	20%	20%
Percent of Bridges Inspected as Scheduled	Percent	N/A	-	-	100%	100%
Ecosystem Management Planning, Inventory and Monitoring						
Lands Management Plan (LMP) Revisions/New Plans Underway	Plans	N/A	1	1	1	1
Land & Resource Management Plan Revisions/New Plans Initiated	Plans	N/A	1	1	-	-
Watershed Scale Assessment	Assessments	N/A	1	1	-	-
Broadscale Ecosystem Assessments Underway	Assessments	N/A	-	-	1	1
Above-Project Integrated Inventories (million acres)	Acres	N/A	4627	4627	10,000	1,000
GIS Resource Mapping	Quads	N/A	-	-	40	310
Land Management Plan (LMP) Monitoring and Evaluation Reports	Reports	N/A	1	1	1	1
Land & Resource Management Plan Monitoring of Soil Resources	Sites	N/A	-	2	-	-
Land & Resource Management Plan Monitoring of Water Resources	Sites	N/A	-	8	-	-
Air Quality Related Value Monitoring	Sites	N/A	-	1	-	-

Description	Unit of Measure	Forest Plan Projection	FY 2003 Target	FY 2003 Amount Accomplished	FY 2004 Target	FY 2004 Amount Accomplished
Recreation Management						
Seasonal Capacity Administered to Standard	Persons-At-One-Time	N/A	500,000	360,00	-	-
Operation of Developed Sites to Standard	Persons-At-One-Time	N/A	-	-	571,071	571,071
Recreation Days Managed to Standard	Days	N/A	8100	8100		
General Forest Areas Managed to Standard	Days	N/A	-	-	1,800	1,800
Recreation Special Uses Authorizations Administered to Standard	Permits	N/A	47	47	51	54
Products Provided to Standard	Products	N/A	4	4	35	35
Wilderness Areas Managed to Standard	Areas	N/A	1	1	1	1
Heritage Resources Managed to Standard	Sites	N/A	23	24	70	72
Miles of Trails Maintained to Standard	Miles	N/A	-	-	439	460
Wildlife, Fish and T&E Management						
Terrestrial Wildlife Habitat Restored or Enhanced	Acres	64 (FY 03) N/A (FY04)	1522	0	512	512
Fish Streams Restored or Enhanced	Miles	N/A	30	11	-	-
Anadromous Fish Streams Restored or Enhanced	Miles	N/A	-	8	-	-
Inland Fish Streams Restored or Enhanced	Miles	N/A	0	3	23	11
Inland Fish Lakes Restored or Enhanced	Acres	N/A	3	0	10	0
Threatened and Endangered Species Recovery Actions Accomplished	Actions	N/A	1	3	-	-
Threatened & Endangered (T&E) Species for Which Actions Were Accomplished	Species	N/A	-	-	1	3
Sensitive Species for Which Conservation Actions Were Accomplished	Species	N/A	2	2	2	2
Provide Interpretation and Education: Products Provided	Products	N/A			10	6
Wildlife Interpretation and Education Products Provided	Products	N/A	6	0	-	-
Forest Management						
Approved Timber Management NEPA Documents through Appeal & Litigation	Documents	N/A	1	1	1	4
Volume Offered - Green	CCF	N/A	12,460	9,868	19,135	415
Volume Offered - Salvage	CCF	N/A	15,550	20,701	26,700	13542
Timber Volume Harvested—All Funding Sources	CCR	N/A	-	27,795	7,000	65,358
Treatment of Harvest-Related Woody Fuels (Brush Disposal-BDBD)	Acres	6,265 (FY03) 6,525 (FY04)	-	606	800	1,167
Special Products Permits Administered	Permits	N/A	-	-	1	1
Establish Vegetation	Acres	5,557	77	18	-	-

Description	Unit of Measure	Forest Plan Projection	FY 2003 Target	FY 2003 Amount Accomplished	FY 2004 Target	FY 2004 Amount Accomplished
Improve Forest Vegetation	Acres	4,800	4558	4418	469	799
Improve Range Vegetation	Acres	N/A	-	-	6,243	6,000
Vegetation and Watershed Management						
Noxious Weed Treatment	Acres	500	930	1193	396	524
Soil & Water Resource Improvements	Acres	50 (FY03) N/A (FY04)	42	107	9	23
Class I Watersheds	Watersheds	N/A	-	10	-	-
Class II Watersheds	Watersheds	N/A	-	8	-	-
Class III Watersheds	Watersheds	N/A	-	8	-	-
Minerals & Geology						
Operations Processed	Operations	N/A	26	17	19	15
Operations Administered to Standard	Operations	N/A	24	37	16	36
Geologic Permits and Reports Completed	Reports	N/A	2	1	1	1
Bonded Non-Energy Operations Processed	Operations	N/A	-	4	-	-
Total Bonded Non-Energy Operations	Operations	N/A	-	23	-	-
Number of Energy Facility Corridor Applications Processed w/in Prescribed Time	% of Total	N/A	-	-	30%	30%
Land Ownership Management						
Land use Authorizations Administered to Standard	Authorizations	N/A	5	5	-	-
Boundary Line Marked or Maintained	Miles	N/A	-	2	-	-
Authorizations Administered to Standard	Permits	N/A	-	-	2	2
Acres Acquired	Acres	N/A	-	-	80	0
Non Federal Acres Placed in Federal Ownership	Acres	N/A	-	-	223	0
Facilities						
Facility Condition Surveys Performed as Scheduled	Percent	N/A	-	-	100%	100%
Master Plans Completed	Percent	N/A	-	-	100%	Not on final target
Energy Audits Completed	Percent	N/A	-	-	10%	Not on final target
Public Drinking Water Systems w/Certified Operators as Required by EPA/State	Percent	N/A	-	-	100%	100%
Drinking Water Systems with Current Sanitary Surveys	Percent	N/A	-	-	100%	100%
State and Private Forestry and Fire						
Firefighting Production Capability	Chains/hour	N/A	-	-	114	124
Fire Protection Management						
Non Wildland/Urban Interface (non-WUI) Hazardous Fuels	Acres	N/A	-	-	10,450	14,722
Grazing and Rangeland Management						
Grazing Allotment Administration to Standard	Acres	N/A	-	-	323,989	323,989
Grazing Allotment Decisions Signed	Allotments	N/A	-	-	1	0

Are The Dollars and Workforce Costs of the Plan Implemented as Expected?

Table 2 shows funds allocated to and spent by the Forest for the last four fiscal years (2001-2004). Table 3 displays FY 2003 and 2004 funds and projected FY 2005 funds by resource. Funds on both tables have been factored to reflect 2004-dollar values.

Various types of funding are mentioned throughout this report. Much of the Forest's funding is obtained directly through congressional appropriations. Additional funding comes from trust funds that include deposits made to the Forest Service by timber purchasers, road users and range permittees to cover resource protection costs. Other funds are derived through partnerships with organizations and private parties on a cost share or matching fund basis. The five funding types are described in more detail below:

1. **Appropriated Funds for National Forest System Lands:** These are dollars appropriated by Congress to provide protection, management, and utilization of national forest lands.

2. **Range Betterment Funds:** A portion of grazing fee receipts finance the range betterment program on national forest lands. Fifty percent (50%) of grazing fee receipts is returned to the Forest to fund structural and nonstructural range improvement such as seeding, fence construction, weed control, water development, and fish and wildlife habitat enhancement. Regional policy states range permittees will split the cost of labor and supplies. Permittees often supply the labor needed to implement and maintain improvements.

3. **Permanent and Trust Funds:**

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

   Timber Salvage Sale: Salvage sale funds are used for: 1) designing, engineering, and overseeing salvage sale road construction; 2) sale preparation; and 3) salvage sale administration. These funds are used to salvage and remove insect invested, dead, damaged, or down trees for stand improvement. Part of the receipts from timber salvage sales are deposited in this account and used to prepare and administer future salvage sales.

4. **Cooperative Work, Knutson-Vandenberg (KV) Funds:** These funds are deposited by timber purchasers and used primarily for resource activities that improve the future productivity of renewable resources on timber sales (i.e. reforestation, timber stand improvement, etc.).

   Cooperative Work Fund: Funds are derived from deposits received from cooperators for protecting and improving resources as authorized by trust agreements. These deposits are used for 1) constructing, reconstructing, and maintaining roads, trails, and other improvements, 2) timber scaling services, fire protection and 3) other resource purposes. Cooperative road maintenance deposits are made by commercial forest road system users in lieu of actually performing their commensurate share of road maintenance. The Forest Service uses these deposits in conjunction with congressionally appropriated funds to provide system road maintenance.

5. **Challenge Cost Share Dollars:** Challenge cost share agreements are federal funds matched by various states, and private non-profit organizations to jointly develop, plan, and implement projects to

enhance specific resource improvement activities. These funds are currently permitted for use in recreation, wildlife, and fish cost-share programs.

Table 2: Forest Funding Level for FY 2001-2004:

FY 2004 Funding Description	Fiscal Year 2001		Fiscal Year 2002		Fiscal Year 2003		Fiscal Year 2004	
	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
Rec., Heritage & Wilderness	$1005	$1008	$991	$994	$810	$833	$1346	$1308
Title IV National Fire Plan	34	41	34	40	0	0	0	0
Fisheries and Wildlife	1445	1316	1424	1298	996	962	1268	1206
Grazing Management	252	196	249	193	228	205	310	258
Vegetation & Watershed	1702	1771	1678	1746	857	870	1024	979
Title IV National Fire Plan	670	388	661	382	418	384	38	29
Reforestation Trust	0	0	0	0	385	386	347	338
Minerals	345	371	340	366	317	262	356	292
Timber								
-Timber Management	361	330	356	326	903	820	692	675
-KV Reforest/Timber Stand Improv/Other	968	715	955	705	931	728	345	329
-Other-Trust Fund	106	90	105	88	91	40	125	53
-Timber Salvage Sales	1930	1580	1903	1558	1819	1636	1844	1211
Protection								
- Fire Protection & Fuels	5762	5544	5680	5465	6267	5520	6401	6761
- Law Enforcement	64	56	63	55	72	49	0	0
- Brush Disposal	299	206	295	203	305	105	320	167
Title IV National Fire Plan	661	381	651	376	0	0	0	0
Lands Manage & Acquisition								
-Special Uses/Land Exchange & Acquisition/Landline Location	318	316	313	311	53	11	663	657
Title IV National Fire Plan	27	26	27	26	136	135	189	170
Capital Improve & Maintenance	27	28	27	28	0	0	0	0
-Facility Capital Improve & Maintenance	7611	609	750	600	310	266	682	622
-Road Capital Improvement& Maintenance	204	1198	1187	1181	1085	1016	1523	1393
-Trail Capital Improvement & Maintenance	1399	975	1379	961	1176	974	1086	966
-Deferred Maintenance	268	267	264	263	262	204	130	134
Roads & Trails for States	106	107	105	106	57	39	25	23
Title IV National Fire Plan	58	102	58	101	0	0	0	0
Infrastructure Improv. & Maint.	79	79	78	78	7	7	0	0
Ecosystem Management	830	733	818	722	683	566	984	880
RAC	0	0	0	0	710	284	1612	465
Totals	20,681	18,433	20,388	18,171	18,879	15,910	21,310	18,916

Table 3: Forest Funding Level for FY 2003, FY 2004 and FY 2005

Funding Description	FY 2003	FY 2004	FY 2005
Recreation, Heritage, and Wilderness	810	1346	1122
Fisheries and Wildlife	996	1268	1151
Grazing Management	228	310	276
Vegetation and Watershed	857	1024	840
Title IV National Fire Plan	418	38	0
Reforestation Trust	385	347	368
Minerals	317	356	275
TIMBER			
- Timber Management	903	692	512
- Knutson-Vandenberg Reforest/Timber Sale	931	345	672
improvement/Other	91	125	118
- Other-Trust Fund	1819	1844	2016
- Timber Salvage Sales			
PROTECTION	6267	6401	5120
- Fire Protection & Fuels	72	0	0
- Law Enforcement	305	320	295
- Brush Disposal			
LANDS MGMT & ACQUISITION	53	663	84
Special Uses/Land Exchange & Acquisition/Landline Location	136	189	189
CAPITAL IMPROVEMENTS & MAINTENANCE			
- Facility Capital Improvement & Maintenance	310	682	328
- Roads Capital Improvement & Maintenance	1085	1523	1230
- Trail Capital Improvement & Maintenance	1176	1086	882
- Deferred Maintenance	262	130	0
ROADS AND TRAILS FOR STATES	57	25	0
Ecosystem Management	683	984	666
Payments to States – County Projects	710	1612	751
Totals	18879	21,310	16897

To allow comparison, Table 2 and Table 3 were adjusted to reflect inflation at the 2004 level. Table 3 uses 2004 funding descriptions making comparison and use of previous reports inappropriate because there are differences in funding descriptions from year to year. To the best of our ability, previous funds were converted to match 2004 funding descriptions. FY2004 allocations reflect $1,713,000 Fire Suppression Offset withdrawal from wildland fire protection and fuels funds. Payments to States - County Projects were added for the Resource Advisory Council (RAC).

SECTION 2: FOREST PLAN MONITORING REQUIREMENTS

This part of the report summarizes and discusses monitoring and evaluation results. Under most resources a summary answering four questions is presented first:

- What did we accomplish?
- What outputs and/or work were planned that did not get accomplished?
- What practices need to be changed based on monitoring results?
- What is the current condition and trend of the resource when compared to the desired condition?

Summary questions are followed by each Forest Plan monitoring item listing:

- Measurement Frequency
- Reporting Period
- Variability that would initiate further evaluation
- Monitoring Results
- Evaluation of Monitoring Results

The items that follow were arranged by resource and follow Nez Perce Forest Plan (Table V-1) requirements.

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WILDLIFE

1) What did we accomplish?

- We acknowledged unnatural stand-replacing fire risks particularly to old growth reserves in ponderosa pine and dry Douglas-fir cover types and initiated adaptive management to begin reducing the risks of future habitat losses. Forest personnel have begun designing and implementing high-intensity fire risk reduction and ecosystem restoration treatments incorporating timber harvest/thinning and/or prescribed fire plans as tools (i.e. Salmon River Canyon fire project, Meadow Face Stewardship Project, and Clean Slate Project).

- We continue supporting the prudent, careful application of biocontrol agents to suppress noxious weed infestation affecting native plant communities and big game winter range.

- We reviewed the effect of land management activities on federally listed and Forest Service sensitive species and prepared over 40 biological assessments and evaluations to meet Endangered Species Act and Forest Service policy requirements. We maintained protections and habitat conditions for threatened and endangered species through informal consultations and good working relations with U. S. Fish and Wildlife Service.

- We continued broad-scale neotropical migrant bird habitat inventories. Forest personnel continued coordination and data sharing across the Northern Region to help improve landscape-scale monitoring and international biological diversity issues related to land birds.

- We continue population monitoring of Forest Management Indicator Species to the extent possible with available funding, staffing and assigned work priorities.

2) What outputs and/or work were planned that did not get accomplished?

- Big game winter range improvements funded by wildlife dollars fell short of Forest Plan prescribed burning objectives by about 5,000 acres for FY2003, due principally to priority placement of people and resources to wildfire emergencies. However, we have met or exceeded the 5,000 acres through wildland fire use.

- Timber harvest treatment on big game winter ranges fell short of Forest Plan goals for FY2003 and FY2004. However, we have met or exceeded the 5,000 acres through wildland fire use.

3) What practices need to be changed based on monitoring results?

- In times of severely low budgets and limited personnel, monitoring resources must be focused on a reduced number of priority ecological indicator species.

- Population trend monitoring of elk, big horn sheep, and moose should be dropped as Forest Service monitoring items since these species are regulated principally through hunting and are carefully managed and monitored by the Idaho Department of Fish and Game. These species were originally selected as management indicators principally due to their featured status as hunted species rather than serving as ecological indicators.

None of these species is even remotely considered rare or in jeopardy of population viability risk.

- Some federally listed Forest Plan management indicator species (bald eagle, wolf, grizzly, and peregrine) should be de-emphasized and monitored intermittently or dropped entirely as management indicators since: 1) They are monitored across larger landscapes by multiple agencies, 2) Most have made substantial progress toward recovery and have been down-listed or are essentially recovered, and 3) Local populations status and recovery information far exceeds available information on other less studied species whose habitats have been severely reduced.

- Reduce the number of individual management indicator species, based on information above.

- Incorporate and formally adopt the North Idaho old-growth standards in the Forest Plan revision process.

- Change snag monitoring to become a coordinated, joint effort among wildlife, timber, fire and fuel wood administration disciplines to ensure greater integration.

- Change road density monitoring (i.e. open/closed roads and trails) to a multi-resource monitoring element using GIS technology to track it. Consider adapting habitat effectiveness monitoring for elk (summer), forest carnivores, grizzly bear habitat, and other human-activity-adverse species to use this single variable.

- Incorporate habitat diversity (vegetation communities/successional stages status) as a new, GIS-tracked, multi-resource monitoring element Forest-wide, to track structural diversity to better determine quality of wildlife habitat.

- Drop grand fir/Pacific yew (designated management area #21 in the Forest Plan) monitoring due to major shifts in forest management and harvest strategies away from clear-cut/burn techniques.

4) What are the current resource conditions and trends compared to desired conditions?

- Lower elevation habitat types and "protected" old growth areas in ponderosa pine and dry Douglas-fir habitats are generally too heavily stocked and fuel-rich. These conditions can lead to stand replacing fire regimes instead of the historic non-lethal or mixed fire regimes. Active fuel reduction by using fire of mechanical methods (or a combination of methods) may help prevent conversion of late successional habitat to early succession resulting from artificially high intensity fires. Habitats of some Nez Perce Forest sensitive, Management Indicator Species (MIS) and Neotropical birds are transitioning from highly suitable open late succession conditions to lower quality dense late succession habitats. Understory condition, canopy cover and forest composition shifts are occurring as a result of fire exclusion. Recent trends in wildland fire use are helping reverse these artificial habitat transitions.

- Most federally listed terrestrial species with the exception of lynx are in relatively good condition with upward trends or are essentially recovered. Recovery for bald eagles and

wolves is on schedule or ahead of schedule. Peregrine falcons were de-listed in 1999. Grizzly bear reintroduction and recovery is uncertain and has been temporarily shelved by the Department of the Interior.

- Big game winter range condition imbalances and forage distribution is being cited along with declining summer forage conditions as key factors in slow recovery of local elk population numbers from heavy hunting pressure and effects of current predator populations. In the longer term, species such as wolverine, wolf, and potentially lynx depend on the proper amounts and distribution of early seral habitats in the forest landscape which support key species used as prey and carrion. Forest carnivores including wolverine, wolves, lynx, and other species have likely been indirectly affected by past fire exclusion and unchecked forest succession in many habitat types. Current wildland fire use trends are helping to reverse the negative effects of fire exclusion in our fire-adapted habitats. These trends are helping to reestablish and sustain appropriate successional stage and forest type distributions. See Table 4 below.

Table 4: Nez Perce Forest timber harvest, prescribed fire and wildland fire acres from 1988-2004.

Year	Regeneration Timber Harvest Acres	Prescribed Fire Acres	Wildland Fire Acres	Total Acres
1988	2,911	1,000	105,943	109,854
1989	2,544	2,800	8,888	14,232
1990	2,521	6,898	643	10,062
1991	2,931	2,600	2,207	7,738
1992	2,616	2,325	44,966	49,907
1993	2,304	690	4,700	7,694
1994	2,554	620	9,118	12,292
1995	1,454	550	26	2,030
1996	2,416	1,500	40,132	44,048
1997	489	2,530	29	3,048
1998	721	400	233	1,354
1999	495	4,850	1,278	6,623
2000	292	1,090	33,097	34,479
2001	514	1,950	18,160	20,624
2002	168	798	15,741	16,707
2003	411	1,035	44,689	46,135
2004	1,105	8,958	1,136	11,199
Total Acres	26,446	40,594	330,986	398,026
Average	1,556 acres per year	2,388 acres per year	19,470 acres per year	23,413 acres per year

BIG-GAME HABITAT CARRYING CAPACITY
(Forest Plan Monitoring Item 1c)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years

Variability that would initiate further evaluation: Significant trend deviations (evaluated at 5-year intervals) from planned or expected forage-generating activities or events (timber harvest, prescribed fire, and wildfire).

Forest Plan Appendix O Requirement: Available forage produced will be measured. Production trends will be based on 5-years of data. Forage production has been documented in Table 4 by displaying Nez Perce Forest acres of timber harvest, prescribed fire, and wildland fire from 1988 through 2004.

Forest Plan Appendix O Requirement: Use big-game winter range counts to establish population trends. Survey about half of the big game winter range annually. Get trend data from IDF&G. Table 5 displays available elk winter survey results (1987-2004) for Nez Perce National Forest game management units (GMUs). The table shows estimates for total population size, bull:cow, and calf:cow ratios.

Summer Elk Habitat: The Forest Plan identified approximately 1,887,000 acres of elk summer range on the Nez Perce National Forest. Of this amount, approximately 866,000 acres (46 percent) of elk summer range are within the Forest's three designated wildernesses. The Forest Plan designated elk summer range habitat effectiveness objectives at 25 percent on approximately 207,132 acres; 50 percent on approximately 463,372 acres; 75 percent on approximately 274,033 acres; and 100 percent on approximately 942,258 acres.

Forest Plan Appendix O Requirement: One-half of all land-disturbing activities will be evaluated annually using the "Guidelines for Evaluation and Managing Summer Elk Habitat in Northern Idaho." The Nez Perce Forest wildlife biologists consistently evaluate all land-disturbing activities to address summer elk habitat conditions. All environmental assessments and environmental impact statements evaluate summer elk habitat using the guidelines referenced above. Table 6 shows Nez Perce National Forest has been divided into 173 elk evaluation units. Currently 130 (75%) of the units are being managed according to Forest Plan standards.

Table 5: Elk winter survey results for Nez Perce National Forest game management units (GMUs) for estimated total population size, bull:cow, and calf:cow.

Zone	Game Unit		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Elk City	14	Total Bull:Cow Calf:Cow		1799 26.1 50.3		1572 18.1 31.7			2259 18.1 34.3						2309 13.6 27.2					2584 29:7 33:7
	15	Total Bull:Cow Calf:Cow	903 26:2 25:7			895 20.4 40.4			1321 11.1 44.0			1544 9.6 32.4		1388 17.5 32.8		945 13.5 25.0		Na Na 34.8	Na Na 27.4	Na Na 29.5
	16	Total Bull:Cow Calf:Cow	1750 20.9 27.6			861 9.9 16.3			1538 18.7 21.0			1148 11.9 17.9				1246 12.9 21.5				
Hells Canyon	13	Total Bull:Cow Calf:Cow			603 33.4 34.5					1344 12.0 33.3							1425 20.9 39.3			
	18	Total Bull:Cow Calf:Cow				421 47.4 36.1		591 50.3 28.8								950 45.3 24.9				
Selway	16A	Total Bull:Cow Calf:Cow		1034 30.1 30.8			1088 19.3 32.2				475 19.6 14.7				539 12.7 21.5					695 21.1 28.5
	17	Total Bull:Cow Calf:Cow		4430 24.8 29.0			3942 21.1 24.4				4955 20.9 22.2				3188 16.0 11.9			Na Na 15.9	Na Na 16.2	2897 23.4 15.9
	19	Total Bull:Cow Calf:Cow	1472 19.2 34.2		1555 19.4 24.3			1653 18.4 31.7				1566 15.9 20.4					2143 16.0 26.2			
	20	Total Bull:Cow Calf:Cow	805 18.8 27.6		1155 24.8 26.3			1380 32.4 33.7		1145 19.1 24.8		1277 31.4 15.2					854 23.3 20.2			

Table 6: Nez Perce National Forest elk evaluation units managed at or above Forest Plan standards.

District	Total Elk Units	Elk Units at or above Forest Plan Standard	
		Number	Percent
Slate Creek/Salmon River	33	24	73
Clearwater	32	25	78
Selway/Moose Creek	16	10	63
Red River/Elk City	92	71	77
Nez Perce Forest	173	130	75

Moose Winter Range (MA 21):

Forest Plan Appendix O Requirement: ID Team review of all land-disturbing activities occurring in moose winter range (MA 21)

Late seral grand fir with pacific yew canopy cover habitats along with other associated browse are important components of moose winter habitat. Timber harvest on moose winter range is limited by the Forest Plan to 5 percent of MA 21 (moose winter range) per decade. In 2003 there were approximately 190 acres of moose winter range treated. These treatments were associated with fire suppression activities (fireline and safety zone construction) for the Slims Fire.

Monitoring Results

Forage Production: Table 4 displays the projected acreages for each variable identified in the Forest Plan and their FY 2003 and FY2004 accomplishments.

Summer Elk Habitat*:* Projects analyzed and implemented in FY 2003 and FY 2004 maintained or improved summer habitat objectives in the elk evaluation areas affected.

Moose Winter Range: In FY 2003, 189 acres of MA 21(moose winter range) were treated using a special cut prescription (select trees were removed) along Trail 334 in East Fork Horse Creek on the Moose Creek Ranger District. This activity was associated with fire suppression (fireline and safety zone construction) for the Slims Fire. Due to wholesale changes in forest management and harvest type philosophies in recent years, current levels and types of harvest-related impact are no longer considered damaging to long-term moose habitats. Fiscal year 2003 harvested acres represent less than 0.5% of the 1987 Forest Plan identified moose winter range; well below the 5 percent per decade limit. The dramatic reduction in clear-cut/burn prescriptions used widely before the early and mid-1990's has virtually eliminated risks to grand fir/Pacific yew moose habitats. With the currently applied ecosystem management emphasis, and types of harvest now employed, the urgency to protect critical grand fir/yew winter habitats from clearcutting and burning has become a declining concern. In FY2004, no acres of MA 21 were harvested.

Evaluation of Monitoring Results

Forage Production: Over the past 10 years, timber harvest that has increased big game forage has averaged approximately 807 acres per year (18 percent of the Forest Plan projection). Prescribed burning has averaged 2,366 acres over the past 10 years (47% of the Forest Plan projection). Though timber harvest and prescribed burning have fallen short of projected acreages, wildfires have compensated for the shortfall. Wildland fires have averaged 15,452 acres per year over the past 10-years (329% of the

Forest Plan projection). Combined, these activities have altered an average of 18,625 acres per year over the past 10 years (130% of the Forest Plan projection).

Summer Elk Habitat: Forty-three (25%) elk analysis units remain below Forest Plan summer habitat objectives for a variety of reasons. Forest-wide elk summer range conditions assessment indicates:

1. Elk habitat effectiveness objectives are being met or exceeded on 75 percent of the Forest's elk summer range; and

2. Needed adjustments to meet Forest Plan elk objectives can conflict with motorized vehicle access objectives more than originally anticipated.

3.

Moose Winter Range: Forest Plan direction to limit timber harvest to 5 percent per decade has been followed. No harvesting occurred in MA 21 acres in FY2004. Harvest in moose winter range in FY2003 amounted to about 0.5% of Forest Plan identified moose winter range.

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NON-GAME HABITAT
(Forest Plan Monitoring Item 1d)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years

Variability that would initiate further evaluation: Significant deviation from Forest standards on a project-by-project basis triggers further evaluation.

Forest Plan Appendix O Requirement: Review old growth and T&E habitat in the environmental assessments process and during project layout. ID teams will review timber sales midway through the sale or near completion to assess compliance with snag management guidelines.

Forest Plan Appendix O Requirement: Population data will be collected annually on a random sample of 10 percent of the Forest. Survey breeding-bird density transects.

The North American Breeding Bird Survey (BBS) is a long-term, large-scale, international avian monitoring program initiated in 1966 to track the status and trends of North American bird populations. Each year during the height of the avian breeding season, typically in June, participants skilled in avian identification collect bird population data along roadside survey routes. Each survey route is 24.5 miles long with stops at 0.5-mile intervals. At each stop, a 3-minute point count is conducted. During the count, every bird seen within a 0.25-mile radius or heard is recorded. Surveys start one-half hour before local sunrise and take about 5 hours to complete.

It is extremely important to examine the sample sizes used for each trend estimate, and to compare trends across scales (e.g. state or strata trends vs. regional trends). The BBS does not adequately sample rare species or certain habitats (e.g. wetlands, riparian, and forest interior). Further, route

coverage in the western states and provinces has been spotty and inconsistent - looking something like Swiss cheese. Interpretations should be made with caution!

The trend estimates should always be used in context of other available information and with an understanding of the data's limitations. Perhaps the most valuable use of these estimates is to give a broad perspective on population changes and to indicate areas where greater information is needed. Since no habitat information is collected concurrent with the bird surveys, correlations cannot be made with habitat changes.

Breeding bird survey information was accessed at http://www.pwrc.usgs.gov/bbs/retrieval/summary/statyearform.cfm. There have been 244 species observed in Idaho. There are six breeding bird survey transects in Idaho County, where Nez Perce National Forest is located. Within Idaho County, 137 bird species have been documented. This indicates high species diversity in Idaho County, perhaps as a result of high habitat diversity. Five of the observed Idaho County species are listed on the 2002 US Fish and Wildlife Service (FWS) Birds of Conservation Concern list. Two species of concern (golden eagle and Lewis's woodpecker) show possible declines when comparing the 2000-2004 count averages to the 1987-2004 count averages. Additional data collection would be necessary to determine if possible declines are significant. Table 7 displays Idaho County breeding bird observations for birds listed as FWS Birds of Conservation Concern (2002)

Table 7: Idaho County breeding bird observations for birds listed as FWS Birds of Conservation Concern (2002)

Observed 2002 FWS Birds of Conservation Concern	1987-1989 Average Number of Observation	1990-1994 Average Number of Observation	1995-1999 Average Number of Observation	2000-2004 Average Number of Observation	1987-2004 Average Number of Observations
Golden Eagle	4	4	5	3	4
Lewis's Woodpecker	4	5	5	2	4
Red-naped Sapsucker	22	32	25	33	29
White-headed Woodpecker	0	0	0	0	0
Williamson's Sapsucker	1	1	1	3	1

Forest Plan Appendix O Requirements: Attempt to obtain indices to furbearer populations (fisher and marten) by establishing track-transects or scent-post lines. Population status of furbearers will also be inferred from data on population age and sex structure obtained from IDF&G. In FY2003, the Forest hosted a multi-agency and public furbearer track training session in cooperation with Idaho State Trappers Association. Twenty six people attended the training session. Five furbearer transects have been established across the Forest. Snow conditions in FY2003 and 2004 prevented survey of some transects. In both years, 3of the 5 transects were completed at least one time during the winter field season.

Old Growth (MA 20): The Forest Plan does not allow timber harvest in designated old growth forest until decade 10 and/or in replacement stands until decade 16. No harvest occurred in MA20 during FY 2003. In FY2004, 65 acres in four areas were treated. Unit 12 (32 acres) and Unit 32 (13 acres) of the 2021 Timber Sale appear to be ponderosa pine/Douglas fir restoration treatments on the Clearwater Ranger District. The silvicultural prescription for Unit 12 was a commercial thin and Unit 32 was a special cut (individual tree selection). Treatments in Unit 27 (5 acres) and Unit 32 (15 acres) of the

Starbucky Timber Sale occurred on the Red River Ranger District. The silvicultural prescription for both units was an improvement cut (done prior to pre-commercial thinning). This prescription indicates these units were inaccurately classified as old growth. Intensive regeneration treatment methods (i.e. clearcutting) in late seral and over-mature habitats have declined dramatically since the early to mid 1990's. This significant change in management has substantially reduced and minimized current harvest-related impacts and risks of habitat loss or fragmentation on old growth-associated wildlife species. Adherence to Forest Plan Old Growth standards is contributing to maintaining sufficient amounts, quality, and distribution of old growth habitats necessary for the maintenance of viable populations of old growth associated species across the Forest landscape. Recognition of risks to old growth habitats from stand-replacing fires have led to proposals to partially thin from below in some ponderosa pine and dry Douglas fir old growth areas.

Monitoring Results

Old Growth (MA 20): Previously used 40-acre clearcutting and burning practices in late seral stands are no longer routinely done. To help ensure long-term old growth sustainability in dryer habitat types, thinning fuels is necessary to simulate natural fires. Increased awareness of stand replacement fire risks in lower elevation ponderosa pine and dry Douglas fir habitat types is stimulating changes in how dry conifer habitats are managed. Considerations are being given to treating dry site old growth to restore these fire dependent habitats which have been affected by fire suppression.

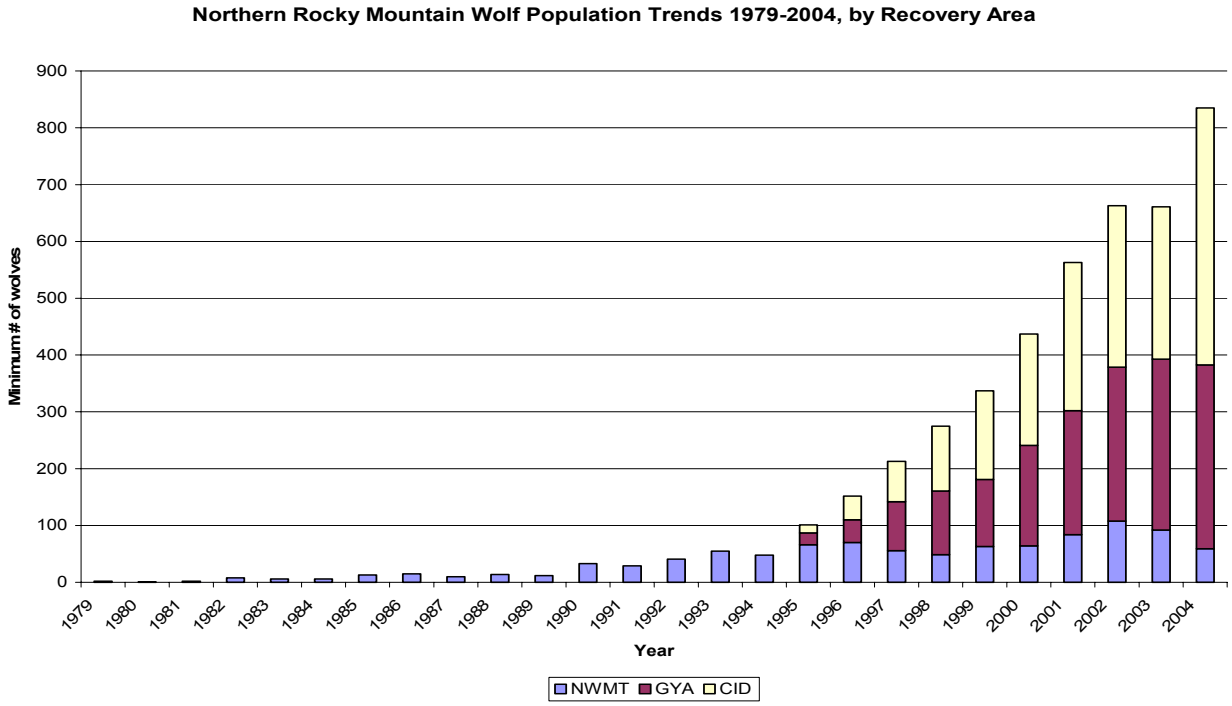
Threatened and Endangered Species Habitats/Populations Monitoring

Gray Wolf: A healthy and growing wolf population was evident in FY 2003 and FY2004. An apparent wolf pack's tracks were documented (6 sets) near Lytle Cow Camp in February 2002. Other wolf reports occurred at Pete King Creek near Lowell and up the Selway River near Moose Creek. Wolf tracks (1 set) were reported at Dentist's Parlor and Road 642 near Burnt Flats Salvage Sale. Three sets of wolf tracks were reported from the Clear Creek drainage. A third wolf pack was confirmed using the area 9 miles north of Elk City. The Salmon River District reported wolf presence and activity in Little Slate Meadows, Wind River Meadows, Round Bottom Meadows, North Fork Slate Creek, as well as activity by the Gospel-Hump and numerous track and sign reports. A New pack was confirmed as being established at Cold Springs in the summer of 2004. A total of five packs now occupy the Red River District. The Forest is home to a total of seven confirmed wolf packs.

At the end of 2003, the Central Idaho Experimental Population Area had over 350 wolves and 422 at the end of 2004 including 44 known wolf packs, as seen in Figure 1. The Northern Rocky Mountain Recovery Region population recovery goal was achieved in 2002. (http://mountain-prairie.fws.gov/wolf.htm)

Given wolf recovery progress within the Central Idaho Recovery Area (CID), no restrictions on human access or activities are required to protect wolves from human disturbances on the Nez Perce Forest. Central Idaho confirmed wolf packs easily exceed fifteen. The Wolf Reintroduction Final Rule (Federal Register: Nov. 22, 1994) stated that "when six or more breeding pairs are established in an experimental population area (Central Idaho), no land-use restrictions may be employed outside of national parks or national wildlife refuges, unless wolf populations fail to maintain positive growth rates toward population recovery levels for two consecutive years."

Figure 1: Northern Rocky Mountain Wolf Population Trends 1979-2004, by Recovery Area



Grizzly Bear: In FY 2003 and FY 2004, there were no reported observations of grizzly bears by Forest Service biologists or employees, forest visitors, or Idaho Department of Fish and Game personnel.

Peregrine Falcon: The peregrine falcon was de-listed on August 25, 1999. Population monitoring is scheduled to continue through 2004. The Shingle Creek and Sheep Gulch peregrine falcon aerie sites were monitored in 2003 and 2004. No use was reported at Shingle Creek in 2003 and 1 lone bird was observed in 2004. Biologists Joanne Bonn and Rita Dixon monitored the Sheep Gulch site on June 28, 2003; three young and one adult were observed. In June and July 2004 a nest and 2 young were observed. Numerous other potential nesting-site habitat acres occur in the Salmon River Canyon, but no incidental reports occurred. Monitoring was accomplished in cooperation with the Idaho Department of Fish & Game personnel.

Bald Eagle: The bald eagle was down-listed from endangered to threatened status in August 1995, by the U.S. Fish and Wildlife Service. Bald eagles have been monitored through the Forest's participation in the annual bald eagle mid-winter census. Transects, counts, and populations trend are shown in Table 8 below.

Table 8: Bald Eagle Monitoring 1984-2004

Survey Route	Salmon River: White Bird to Vinegar Creek		South Fork Clearwater: Farrens Creek to Crooked River		Middle Fork Clearwater: Clear Creek to Selway		Grand Total
	Adult	Immature	Adult	Immature	Adult	Immature	
1984	1	0	3	1	9	0	14
1986	2	0	0	0	6	2	10
1987	1	0	1	0	5	2	9
1988	2	1	2	0	10	2	17
1989	2	0	0	0	4	3	9
1990	5	0	0	0	1	1	7
1991	3	0	1	1	4	4	13
1992	2	0	3	0	12	4	21
1993	10	5	0	0	7	1	23
1994	2	1	3	1	9	3	19
1995	6	0	3	6	15	3	33
1996	4	0	2	0	3	1	10
1997	3	0	3	0	5	1	12
1998	11	1	2	1	No data	No data	15
1999	3	0	3	0	5	1	12
2000	10	0	3	0	No data	No data	13
2001	10	0	3	0	No data	No data	13
2002	10	0	2	1	11	6	30
2003	6	0	2	0	8	2	18
2004	4	1	2	0	11	8	26

Sensitive Species Monitoring Results*:* Limited funding and staffing precluded opportunities to monitor most Forest Service sensitive species.

Sensitive Plant Monitoring Results: Four permanent plots to monitor Puzzling Halimolobos were revisited in 2003, and two in 2004. The plants are beginning to recover after being set back by a spring burn in 2001. A population of candystick in Florence was monitored in 2003, and for the second year has not produced new shoots. The population is next to a road. The first population of giant heliborine was discovered on the Forest in FY2003. Other sensitive plant surveys were conducted in FY2003 and FY2004 they were: Slate Point Lime Mineral Project (20 acres); Microgold Mine (5 acres); Morrison Mistletoe (100 acres); Florence Project (100 acres); Moose Creek Trail (0.1 acres); Red Pines Project (6,000 acres); American and Crooked River Project (3,600 acres); Meadow Face Soil Restoration (200 acres); John Boy (100 acres); Adams Camp Rx Burn (40 acres); Upper Sand Creek Mining Project (10 acres); Blue Mt Rx Burn (600 acres); Joe Springs Rock Source (5 acres); Slate point Radio Repeater (1 acre) Pyson's milkvetch, puzzling halimolobos and Spalding's catchfly surveys were done near Boise Creek in association with the Frank Church RONR noxious weed treatment program. Sensitive plant surveys in the American/Crooked Salvage Project are for candystick, Pyson's milkvetch, lance-leaf grape fern, northern grape-fern, green bug on-a-stick, Bouxbaum's sedge and others were negative except for 12 new candystick occurrences. Sensitive plant surveys for the Red Pines project in Red River drainage located: one new occurrence of deerfern in the Red River Campground and one occurrence of least moonwort.

Evaluation of Monitoring Results

Old Growth (MA 20): Forest Plan old growth has been retained and protected. Recommendations and criteria for determining the best, most suitable old-growth sites are being applied when feasible. Locally derived criteria have resulted in selection and designation of more accurate, habitat-type specific determinations of old growth conditions.

Effects of unnaturally overstocked stands and drought stress leading to stand replacing forest fires, especially where old growth retention is desired, continues to be a concern in ponderosa pine and some drier Douglas fir cover types. Using fire and/or some form of silvicultural thinning to remove understory trees and overstocked conditions acting as "ladder fuels" are being considered more frequently to help protect Forest Plan-designated lower elevation old growth forests from unnatural fuel buildups and stand-replacing fires. These types of actions may become increasingly necessary in the future to sustain healthy lower elevation dry-site old growth habitats, which are critical to maintaining well-distributed, viable populations of some old growth associated species across lower elevations Forest landscapes.

Snag Habitats: Dramatic reductions in overall forest harvest levels and roading has helped reverse past declining snag trends on managed portions of the forest landscape.

Increased use of fire is helping to create new snags and thin stands to help grow larger trees, which eventually serve as future snags. In addition, changes in forest process dynamics associated with increased insects and diseases activity are producing snags at increasing rates on thousands of Forest acres.

Threatened and Endangered Species Habitats/Populations Monitoring: Threatened, endangered, and sensitive (TES) wildlife and habitats management and protection are routinely evaluated in biological assessments/evaluations. In FY2003 and FY2004, no projects required terrestrial species formal consultation due to "likely to adversely to affect" determinations. In FY2003 and FY2004 no terrestrial threatened and endangered species targets were assigned to the Nez Perce and no accomplishments were reported.

Gray Wolf: Based on local sightings, sign and formal monitoring results, Forest wolves are very abundant, widely distributed, and the population is growing. Local wolf populations continued a steep upward trend in FY2003 and FY2004. Given the progress of wolf recovery in the Central Idaho Recovery Area, no restrictions on human access or activities are required to protect wolves from human disturbances on the Forest.

Grizzly Bear: In FY2003, there were no reported grizzly bear observations. Since Forest Plan initiation (1987-present), no confirmed, permanent grizzly occupation exists on the Forest.

Peregrine Falcon: Since Forest Plan initiation, an aggressive reintroduction program on the Forest resulted in a steep upward trend from zero to 37 confirmed peregrines (including natural reproduction) during the first 4 years (1988-92). In 1993, ESA consultation requirements focused the Forest's peregrine falcon monitoring on the Shingle peregrine nest due to its location in the center of an ongoing timber sale. In 1997, the Forest's second nest (Sheep Gulch) was discovered. It fledged five young through FY2000, and is still being used through FY2004. Available information indicates the long-term population trend is now considered stable or increasing.

Bald Eagle: Table 8 displays winter bald eagle survey results on three Nez Perce Forest survey routes. 2003 Forest winter survey routes yielded 16 adult birds and 2 immature birds. 2004 surveys yielded 17 adult and 9 immature birds. Total eagles counted (18 and 26, respectively) were consistent with counts from the previous 18 years. Based on monitoring data, local bald eagle population trends are considered stable or slightly increasing.

Forest Service Sensitive Animal Species Program: Long-term follow-up monitoring is planned in the Meadow Face Project area after vegetation treatments and prescription burning are completed to determine if predicted habitat changes result in conditions attractive to flammulated owls during the nesting season. It is likely that black-backed woodpecker numbers will increase in the Red River, Crooked Creek and American River drainages resulting from the mountain pine beetle epidemic. The Forest Service Northern Region plans to continue long-term landscape-scale land-bird population monitoring on Forest.

Sensitive Plant Monitoring Results: All project areas are surveyed for sensitive plants on a site-by-site basis during NEPA analysis. These surveys continue adding to the list of known sensitive plant locations.

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ACRES OF BIG-GAME HABITAT IMPROVEMENT
(Forest Plan Monitoring Item 1e)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: More than one year of variability from planned improvement acreages, excepting variances due to extreme fire conditions.

Forest Plan Appendix O Requirement: Review all habitat improvement (i.e. winter range burning) accomplishments. Table 9 displays harvested acres, prescribed fire and wildland fire occurring on breaklands habitat. Breakland habitats correspond well to Nez Perce Forest big game winter range.

Monitoring Results: In FY 2003, the Forest did not accomplish any terrestrial wildlife species habitat improvements. A moist spring prevented effective burning and extremely dry fall conditions and wildfire emergencies consumed fire resources so prescription burns were not accomplished. In FY 2004, the Forest had an annual target of 512 acres of terrestrial wildlife habitat improvements. The Forest accomplished 512 acres of habitat improvement. Table 4 shows total Big Game Habitat Improvements from 1988-2004.

Evaluation of Monitoring Results: Table 9 shows *breaklands* habitat (winter range) altered by timber harvest, prescribed fire, and wildland fire averages 5,110 acres per year since 1988. The Forest Plan projected 5,000 acres per year of wildlife habitat improvement would occur.

Table 9: Breaklands (winter range) habitat affected by timber harvest, prescribed fire, and wildfire from 1988 through 2004.

Year	Breaklands Regeneration Timber Harvest Acres	Breaklands Prescribed Fire Acres	Breaklands Wildfire Acres	Total Breaklands Acres
1988	742	3,415	1,614	5,771
1989	1,211	5,775	0	6,986
1990	1,114	2,239	5	3,358
1991	949	285	158	1,392
1992	1,988	771	8,303	11,062
1993	986	1,317	0	2,303
1994	1,904	1,630	0	3,534
1995	247	807	0	1,054
1996	676	2,923	538	4,137
1997	160	4,318	0	4,478
1998	224	5,490	0	5,714
1999	509	7,063	0	7,572
2000	203	3,891	7,996	12,090
2001	9	3,667	3,415	7,091
2002	43	1,904	1,032	2,979
2003	0	1,150	43	1,193
2004	64	6,099	0	6,163
Total Acres	11,202	52,744	23,104	86,877
Average	659 acres per year	3,130 acres per year	1,359 acres per year	5,110 acres per year

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POPULATION TRENDS OF INDICATOR SPECIES – WILDLIFE
(Forest Plan Monitoring Item 10)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 3-5 years

Variability that would initiate further evaluation*:* Variability thresholds triggering further evaluation 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 hunter harvest on populations. Evaluating big-game species will be done cooperatively with Idaho Department of Fish and Game.

Forest Plan Appendix O Requirements:

Use big-game winter range counts to establish population trends. Survey about half of the big game winter range annually. Get trend data from IDF&G. See Table 5**.**

Available forage produced will be measured. Production trends will be based on 5-years of data. Forage production has been documented as: acres of prescribed fire, acres of wildland fire, and acres of timber harvest. See Table 4 and Table 9.

One-half of all land-disturbing activities will be evaluated annually using the "Guidelines for Evaluation and Managing Summer Elk Habitat in Northern Idaho."

> All EA and EIS analyses use the Guidelines for Evaluation and Managing Summer Elk Habitat in Northern Idaho to compare alternatives.

ID Team review of all land-disturbing activities occurring in moose winter range (MA 21)

> There was a multi-resource review of treated moose winter range associated with the Slims Fire. There were no activities on MA 21 in FY04.

Review old growth and T&E habitat in the environmental assessments process and during project layout. ID teams will review timber sales midway through the sale or near completion to assess compliance with snag management guidelines.

Population data will be collected annually on a random sample of 10 percent of the Forest. Survey breeding-bird density transects. There are 6 breeding bird survey routes in Idaho County, where the Nez Perce Forest is located. Results of breeding bird survey routes from 1966-2004 indicate stable populations.

Attempt to obtain indices to furbearer populations (fisher and marten) by establishing track-transects or scent-post lines. Population status of furbearers will also be inferred from data on population age and sex structure obtained from IDF&G. In FY2003, the Forest emphases were to conducted track identification training, build partnerships, and accomplish surveys on established Forest Plan furbearer monitoring transects. In FY2004, our goal was to survey established transects multiple time. In both years, poor snow conditions prevented us from accomplishing all of the surveys.

Non-game and threatened/endangered species variability thresholds, for which data is currently limited, can only be determined after sufficient baseline population data is collected. Population viability determinations for most large-bodied or wide-ranging species must be determined across the species' range, often at much larger landscape scales than simply one national forest.

This section covers Management Indicator Species not previously discussed in this report within the Threatened, Endangered, or Sensitive wildlife species categories. Idaho Department of Fish and Game (IDFG) biologists use aerial surveys, harvest data, and special studies, as needed, principally monitoring hunted species, such as elk, bighorn sheep, and moose. Data is stored by IDFG Region 2 in Lewiston, Idaho.

Elk: Elk herds are the product of habitat quality, influenced by the effects of weather, hunting, and predation. Forest management practices directly affect habitat quality and hunter access. To determine Nez Perce National Forest overall elk herd trends, IDFG historically conducts elk winter-census surveys by helicopter. Results of these winter surveys are displayed in Table 1.

Monitoring Results

Elk: Idaho Department of Fish and Game reported elk survey data on Nez Perce Forest hunt units is displayed in Table 1. Game Management Units 14, 15, 16A and 17 were surveyed in 2003 and 2004.

Hunt Unit 14 – Unit 14 was not surveyed in 2003. In 2004, total elk estimated for the unit was 2,584. Estimates yielded 30 bulls per 100 cows and 34 calves per 100 cows.

Hunt Unit 15 - Idaho Department of Fish & Game surveyed calf recruitment in this unit in 2003 and 2004. 2003 estimates yielded 27 calves per 100 cows and 2004 estimates yielded 30 calves per 100 cows.

Hunt Unit 16A - Idaho Department of Fish & Game did not survey this unit in 2003. 2004 estimates yielded 29 calves per 100 cows, 21 bulls per 100 cows, and 695 total elk in the unit. In this sample hunt unit, short-term trend appears slightly upward and recruitment is considered adequate to maintain local populations.

Hunt Unit 17 - Idaho Department of Fish & Game survey estimates yielded 16 calves per 100 cows in 2003. In 2004, estimates indicated 16 calves per 100 cows, 23 bulls per 100 cows and total hunt unit elk estimated at 2,897. Total recruitment numbers are relatively low, and population recruitment in this hunt unit remains at a concerning level.

Moose: Moose continue to be seen commonly and are widely distributed on the Forest. In addition, IDFG controlled hunter permit numbers have been increased in the past 5-10 years. The moose population has been growing in the past 5-10 years.

Bighorn Sheep: In 2003, several bighorn sheep were observed incidentally during IDFG mountain goat surveys in Unit 17. Bighorn sheep continue to be observed commonly along the Salmon River. Thirty-four sheep were counted incidentally in the Upper Selway drainage, suggesting a stable trend in this unit.

Pileated Woodpecker: Monitoring counts from five stratified randomly placed survey transects established in 1988 are used to monitor population trends through a relative abundance index. Results of these survey transects are listed below in Table 10.

Table 10: Pileated Woodpecker Monitoring Transect Results

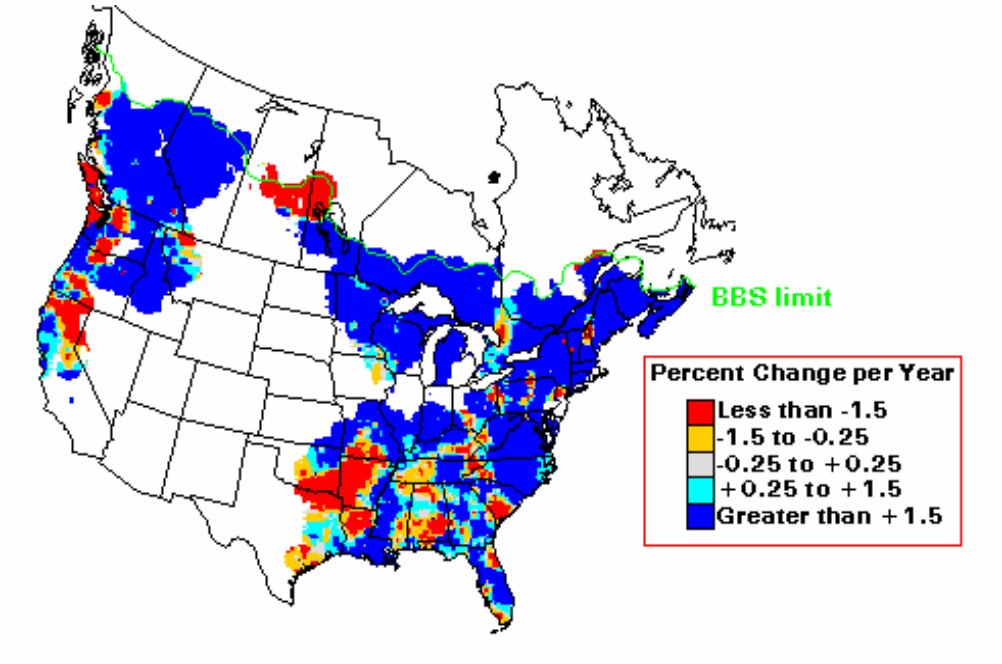
Year	Transects Sampled (#)	Total Counts (Trend index)	Year	Transects Sampled (#)	Total Counts (Trend index)	Year	Transects Sampled (#)	Total Counts (Trend index)	Year	Transects Sampled (#)	Total Counts (Trend index)
			1990	5	6	**1995**	None	No data	**2000**	None	No data
			1991	5	13	**1996**	1	5	**2001**	None	No data
			1992	5	6	**1997**	None	No data	**2002**	4	13
1988	5	9	**1993**	None	No data	**1998**	None	No data	**2003**	5	11
1989	5	9	**1994**	None	No data	**1999**	None	No data	**2004**	1	4[1]

[1] Pileated Woodpecker – one was heard during the transect walk and three were heard walking back to the vehicle after the survey was ended on the Salmon River Ranger District.

During the 2003 Red River drainage summer surveys, six pileated woodpeckers were observed by District Biologist, Sharon Seim. Seim also reported seeing five black-backed woodpeckers, eight hairy woodpeckers and three three-toed woodpeckers in the Red River drainage. District Biologist Joanne Bonn reported the following pileated woodpecker observations on the Salmon River District in 2003: Hartman

Prescribed Burn Area –2; Cow Creek – 1; Victor Creek – 1; Moon Creek drainage – 1; Papoose Prescribed Burn Area – 3. In 2004 Joanne Bonn reported observing one at Cow Creek.

Figure 2: United States USGS Breeding Bird Survey of Pileated Woodpecker Populations



To supplement Nez Perce National Forest pileated woodpecker populations monitoring information, population trends were reviewed across a larger scale on October 16, 2002, from the USGS – Patuxent Wildlife Research Center's North American Breeding Bird Survey web site (http://www.mbr-pwrc.usgs.gov/bbs/bbs.html). Analysis for cavity nesting species revealed that among all Breeding Bird Survey (BBS) cavity nester data from 1980-2000, pileated woodpeckers are an "increasing species".

The pileated woodpecker BBS United States trend map (1966-1996) is displayed in Figure 2 and referenced at: (http://wwwmbr-pwrc.usgs.gov/bbs/htm96/trn626/tr4050.html). Note that the map for pileated woodpeckers indicates the northern Idaho region (including Nez Perce National Forest), is within larger landscape areas showing a 1966-1996 slight upward trend of > +1.5% change per year.

North American pileated woodpecker population data above is courtesy of the USGS Breeding Bird Survey pileated woodpecker 1966-1996 trend map (http://www.mbr-pwrc.usgs.gov/bbs/htm96/trn626/tr4050.html).

Pine Marten/Fisher: In FY2003, a cooperative snow track training session was provided to improve the performance of monitoring and data collection in identified species. The training was open to the public. Representatives from the following groups attended: Idaho Fish and Game, hound hunters, Trapper's Association, Nez Perce Tribe, Clearwater and Nez Perce National Forests.

One adult fisher was observed at milepost 12 on road 244, 2 miles east of McComas Meadows in 2003. In 2003, twenty-seven sets of pine marten tracks were counted on the Elk City/Red River route, along with 15 sets of snowshoe hare, 350 sets of red squirrel, 7 coyote, 2 weasel, 1 elk and many moose and deer. Road 221 (Allison Creek) was monitored for fisher/marten tracks two days after a 12-inch snow; no fisher or marten tracks were reported.

Efforts to collect fisher and marten track data at lower elevations were hampered by absence of snow during the survey period. Previous monitoring efforts have concluded that Nez Perce Forest pine marten appear to be considerably more common than fishers.

In 2004, no pine marten or fishers were observed, but snowshoe hare and bobcats were observed. The snow conditions were poor for fisher or pine marten on the Salmon River Ranger District.

A supplemental population trend index review based on total Nez Perce National Forest fisher sightings and specimen reports per year is available from the Idaho Conservation Data Center's database is summarized from 1985 through 2004 in
Table 11.

Table 11: Fisher Sightings (1985-2004)

YEAR	Sightings	YEAR	Sightings	YEAR	Sightings	YEAR	Sightings
1985	1	**1990**	3	**1995**	2	**2000**	2
1986	3	**1991**	3	**1996**	2	**2001**	0
1987	3	**1992**	13	**1997**	2	**2002**	0
1988	2	**1993**	1	**1998**	1	**2003**	1
1989	5	**1994**	1	**1999**	0	**2004**	0

Current and past trend monitoring suggests relatively low fisher numbers on the Nez Perce National Forest and is difficult to explain without reviewing the scientific literature. Between 1800 and 1940, fisher populations declined or were extirpated in most of the United States and much of Canada due to over-trapping and habitat destruction by logging (Ruggiero et al. 1994). Fishers were reintroduced in Idaho in 1962-63. Information, on fisher densities outside the Northeastern U.S., is limited (Ruggiero et al. 1994). Fisher populations fluctuate with populations prey and in some places exhibit 10-year cycles in response to snowshoe hare population densities. Where fishers were reintroduced (e.g., Michigan, Wisconsin, **Idaho**, Montana), population densities may be low because of insufficient time for populations to build (Ruggiero et al. 1994). A fisher study conducted on the Nez Perce Forest concluded that local fisher populations might be as much influenced by incidental trapping as by changes in habitat (Jones 1991). Finally, current science recognizes that fisher population sizes are difficult to estimate and that all estimates must incorporate considerable sampling error (Ruggiero et.al. 1994).

Figure 3: Canada Lynx

Lynx – No Canada lynx (Figure 3) was observed on the Forest in 2003 or 2004. Regardless of Canada lynx presence or absence, many forest management activities in designated lynx habitats are now governed and guided by the conservation measures in the Lynx Conservation Assessment and Strategy. Recent Idaho Conservation Data Center reports are below in Table 12.

Table 12: Lynx Sightings (1989-2004)

Date	Location
1989	Lightning Creek
1991	Earthquake Meadows
1992	Trapper Cr/Pat Brennan Cr.
1993	Allison Cr./Keating Ridge
1993	Kelly Lakes
1993	Noble Cr./Big Mallard Cr.
1998	Patrol Ridge
2000	Mt. Idaho Junction/Hwy 14
2000	Little Elk Cr. drainage
2001	Schwartz Meadow
2002	Goodwin Meadows
2003	None
2004	None

Wolverine - Wolverine are a Nez Perce Forest Service sensitive species. Previous Idaho Conservation Data Center records are listed below in Table 13.

Table 13: Wolverine Sightings (1979-2004)

Date	Wolverine Location
1979	Corduroy Cr. – W. of White Bird Station
1980	Santiam Cr.
1983	Big Fog Lake – Crag Mtn.
1985	Goodwin Meadows
1985	North Lone Lake
1985	Pettibone Cr.
1987	Road between Elk City & Darby
1988	Trout Cr. – East of Moose Cr.
1989	Concord Landing Strip –Gospel Hump
1989	Wiseboy Lakes – Gospel Hump
1989	1.5 mi. SE of Buffalo Hump
1991	Big Mallard Cr.
1991	Hump Lake
2001	Turnoff to Old Whitebird grade
2002	None
2003	None
2004	None

Goshawk: Goshawk monitoring for FY2003 was conducted at the Cow Creek nesting territory; no goshawks were observed. Considerable field inventory work was done in the American, Crooked and Red River drainages during the nesting season of 2003. One pair of active adults was observed on July 15, 2003 in the American River drainage and three goshawks were observed in the Crooked River drainage. No observations were reported in Red River.

A goshawk survey was conducted in Papoose Creek of the Salmon River Ranger District, on June 18, 2003. An adult goshawk was observed during the survey, possibly a male. No nest was found. Upon completion of the survey, feathers of an adult goshawk were found on the ground, possibly killed by a great-horned owl. The feathers and kill were confirmed by Rita Dixon (IDFG) on June 28, 2003. This could explain why no nest was found, one of the pair did not make it through the breeding season. Cost was approximately $250.

In 1995, a Forest-wide goshawk nest habitat and nesting survey concluded that: 1) quality goshawk nesting habitat is well distributed across the Forest, and 2) the Salmon River and Clearwater River Ranger Districts contained the highest numbers of watersheds with significant amounts of quality habitat. There are at least 13 confirmed goshawk nests on the Forest. Additional nests continue to be discovered.

Evaluation of Monitoring Results: FY 2003 projects contributed to maintaining viable populations well distributed across the Nez Perce Forest for the following TES and MIS populations or habitats: old growth, gray wolf, grizzly bear, peregrine falcon, bald eagle, sensitive plants, pine martin, fisher, lynx, wolverine, elk, moose, bighorn sheep, pileated woodpecker and goshawk.

Elk: Reviewing elk numbers over the past decade along with recent elk-calf recruitment data through 2004, indicates Forest elk population trends across are considered stable to moderately down. In addition to habitat concerns, total predator population numbers and the cumulative effects on game herds have become a concern to local sportsmen and IDFG. In response, IDFG has attempted to offer more liberalized hunting opportunities for cougars and bears.

Moose: As evidenced by common incidental sightings and increasing hunter permit numbers the local Shira's moose population trend remains relatively stable.

Bighorn Sheep: Bighorn sheep population trend estimates on the Forest remain stable.

Pileated Woodpecker: A complete, fifteen year detailed summary of formal monitoring count data and information from the national Breeding Bird Survey is displayed in Figure 2. There were 11 woodpeckers counted on long-term Nez Perce Forest transects in FY2003. In addition, fourteen additional incidental pileated woodpeckers sightings were documented in FY2003 at locations across the Forest. Declines in timber harvest rates, especially clearcutting of late seral and over mature grand fir stands since the early to mid 1990's, have substantially helped reduce pressure on late-seral and old growth habitats, this bird's preferred nesting sites. Also beneficial to this bird, snag creation rates appear to be increasing (See Item 1d, Snag Habitats discussion above).

Available Forest-level data from current and previous year counts along with fourteen other 2003 incidental sightings or authenticated pileated calling reports from many Forest locations support the conclusion that local pileated population trends, are relatively consistent with larger scale analysis conclusions including the North American Breeding Bird Survey Trend results. Populations remain relatively healthy and stable.

Pine Marten/Fisher: To more fully evaluate and interpret fisher and marten population monitoring results, it is meaningful to examine trends of historically impactive factors known to affect fisher and marten populations in the literature. Two of the most scientifically recognized threats to fisher and pine marten distributions and population health are: 1) Loss of habitat and/or human-caused habitat fragmentation through clearcutting late-successional forests, and 2) Deliberate and incidental trapping. Declines in Nez Perce Forest timber harvest since the mid-1990s, especially clearcutting old forest habitats, has reduced rates of habitat loss and fragmentation in late-seral and old growth.

Similarly, Idaho Department of Fish and Game trapper harvest data has documented major declines in trapper activity levels and pine marten harvest (and thus incidental fisher trapping losses) from 1987 to 1995 throughout IDFG Region II (5 county area including Idaho, Lewis, Nez Perce, Clearwater and Latah counties). The Nez Perce Forest is entirely within Idaho County. During this period, reported marten harvests in IDFG Region II steadily declined from 509 to 5. During this period, statewide marten harvest

declined from 2877 to 300, a similar downtrend. Such trends are typically a product of trapper effort levels, which rise and fall with pelt prices. From 1987 to 1995, average reported pine marten pelt prices declined from $38.20 to $17.15. More recently, Idaho County reported pine marten harvest ranged from 1 to 20 marten taken per year from 1996 through 2002. Current levels remain dramatically below harvest levels documented from the mid-1980s when the Forest Plan was initiated. Current pelt prices remain depressed.

Based on available monitoring results, incidental sightings, Idaho Conservation Data Center records and consideration of this data within the context of locally monitored downward trends in the two most commonly recognized threats to fisher and marten populations in the western U.S. (trapping pressure and clearcutting old forest habitats), local fisher populations trends appear stable. Since Forest Plan inception, pine marten track counts and incidental sightings indicate marten population trends remain stable.

Goshawk: Based on formal monitoring results, widely scattered incidental sightings, and inventoried habitat information, local goshawk population trends remain relatively stable on the Forest

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VALIDATION OF RESOURCE PREDICTION MODELS: WILDLIFE
(*Forest Plan Monitoring Item 11)*

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 2 to 5 years (Last report in FY 2000, Next Report in FY 2005)

Variability that would initiate further evaluation*:* Major or significant refinements to wildlife models will be determined through coordination with other agencies including the Nez Perce Tribe and should be supported by research findings and will require Forest Plan amendment or revision. Local biologist judgment and experience is currently being used to supplement and temper the elk guidelines model in specific management situations as recommended in the current guidelines. Sweeping changes in forest management and harvest methods philosophies have occurred including application of sustainability principles, virtual elimination of clearcutting and new roading, and ecosystem management philosophies implemented since the mid-1990's, as well as declining herd populations have dramatically changed the dominant habitat issues surrounding elk habitat management. Concern for elk recruitment is replacing the issue of population maintenance and protection of bull elk and may be a future driving issue.

Monitoring Results and Evaluation of Monitoring Results: The Forest completed a cooperative effort to evaluate and offer recommendations to update the elk summer-habitat guidelines. Wildlife biologists and agency managers from the IDFG, Nez Perce Tribe, Clearwater National Forest, and Nez Perce National Forest updated the summer-elk habitat model during multi-agency coordination of survey methods and data sharing. Biologists reviewed the elk model methodology and drafted recommended changes.

The ongoing Forest Plan revision process is being used to assess if recommended elk modeling modifications or any others should be formally adopted in the Revised Forest Plan. Given the major changes in forest management philosophy during the 1990s and new challenges in elk-population management, continued use of the current elk model is being evaluated during Forest Plan Revision.

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FISHERIES

1. What did we accomplish?

- Forest projects resulting in a fish habitat condition improvement were accomplished (see monitoring element 1f).
- Cooperative restoration work with the Nez Perce Tribe continued in Meadow Creek, Newsome Creek, Red River and Mill Creek watersheds.
- Support to other resource activities minimized negative effects and provided positive benefits to the aquatic resource.

2. What outputs and/or work were planned that did not get accomplished?

- In general, the planned work was accomplished.

3. What practices need to be changed based on monitoring results?

- The results of monitoring continue to be used to adjust the priorities and activities on the Forest to contribute, to the extent possible, to the aquatic resource condition on the Forest. There are no monitoring results available at this time that identify the need to make large-scale changes in practices on the Forest.

4. What are the current resource conditions and trends compared to desired conditions?

- The fisheries resource on the Nez Perce Forest has long been recognized as a very valuable and important resource. The Forest Plan established fish/water quality objectives for Forest subwatersheds (6th code hydrologic units) considering each area's relative potential and value with respect to aquatic and other resources. The Forest Plan also recognizes that some areas do not meet established objectives, or desired conditions. These conditions are a result of many factors, including historic activities. There are a large number of opportunities on the Forest to restore aquatic resource conditions, many of them complimentary with other Forest resource priorities. We actively plan projects on the Forest that will move toward the restoration of aquatic resource conditions.

FISH HABITAT IMPROVEMENTS
(Forest Plan Monitoring Item 1f)

Frequency of Measurement: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: ± 10 percent of Plan targets within a decade.

Annual Forest fish habitat improvement accomplishments are measured as miles of stream improved. This includes direct in-stream improvements and improvement activities upstream or upslope of fish habitat. Projects are often co-funded and reported based on the funding proportions. Fish habitat improvement contributes to anadromous fish (species that migrate to the ocean), and inland fish (resident fish species remaining in inland waters).
In FY 2003, the Forest accomplished various habitat improvements that resulted in 11 miles of stream habitat improvement. Some of the larger projects included fence work in Buck and Merton Meadows and the screening of a water intake at Shearer.

In FY 2004, the Forest accomplished various habitat improvements that resulted in 11 miles of stream habitat improvement. Some of the larger projects included brook trout work in Rainbow and Boulder Creeks and fencing work along Fish Creek.

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FISH HABITAT TRENDS BY DRAINAGE
(Forest Plan Monitoring Item 2e)

Frequency of Measurement: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 1 to 5 years (FY 1999 to 2004)

Variability that would initiate further evaluation: A measured 10 percent or more decrease below established objectives.

This monitoring item reports fish habitat condition trend based on evaluating 24 permanent monitoring stations across the Forest. These stations are measured 3 years out of 5 in order to evaluate habitat trend over long periods. . Assessment of the data collected at these monitoring stations has been completed for a few of the stations and reported in project scale documents. An overall assessment of this data set was not completed during this monitoring period.

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IMPLEMENTATION OF PACFISH AND EFFECTS OF MANAGEMENT ACTIVITIES ON ANADROMOUS FISH
(*Forest Plan Monitoring Item 2p)*

Frequency of Measurement: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: Unacceptable interdisciplinary review results.

The Forest Plan was amended by PACFISH (Amendment #20). Ongoing and proposed management activities are evaluated in Biological Assessments (BA) to determine management activity effects on species listed under the Endangered Species Act. In FY 2003 and FY 2004, the Forest evaluated management activity effects on fisheries resources in BAs, and received associated concurrence from the National Marine Fisheries Service (National Oceanic and Atmospheric Administration – NOAA) and Fish and Wildlife Service.

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TIMBER

1) What did we accomplish?

- In FY 2003, 1088 acres were pre-commercially thinned, and 767 acres in FY 2004.
- In FY 2003, 1016 Acres were planted, and 208 acres in FY 2004.
- In FY 2003 there were 1257 acres Harvested or 14,189 MMBF (27,795 CCF), and 2467 acres or 34,535 MMBF (65,358 CCF) in FY 2004.
- In FY 2003 the Nez Perce National Forest sold 1068 MMBF (2740 CCF) of non-chargeable (not part of ASQ) component such as firewood, post and pole material, and pulp. In FY 2004, 1306 MMBF (3,343 CCF) was sold.
- In FY 2003, the Nez Perce National Forest sold 15,913 MMBF (30,569 CCF) of chargeable (part of ASQ) component. In FY 2004, 7412 MMBF (13,957 CCF) was sold.

2) What outputs and/or work were planned that did not get accomplished? None.

3) What practices need to be changed based on monitoring results?

Vegetation management acres need to be increased if the Forest Plan objectives are to be met.

4) What is the current resource condition and trend when compared to desired conditions?

Higher than historical stocking is contributing to increased insect and disease incidence, as well as contributing to potentially higher fire intensities. The trend needs to change to lower density and create more shade intolerant seral species stands.

ALLOWABLE SALE QUANTITY (ASQ) SOLD BY COMPONENTS
(Forest Plan Monitoring Item 1h-1)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: Any change in allowable sale quantity (ASQ) achievement altering the implementation of long-term goals and objectives displayed in Forest Plan Chapter 2 (Forest-wide Management Direction) and Chapter 3 (Management Area Direction) may necessitate a Forest Plan Amendment.

Discussion: The ASQ is the maximum timber value that may be sold during a planning period from the suitable land base. The ASQ is a sold-volume ceiling. We are now in the second decade (starting 1998) since the Forest Plan Record of Decision (ROD) was signed. The ROD identifies the second decade ASQ at 1,380 MBF (138 MMBF per year).

Chargeable and non-chargeable volume accomplishments are reported in a Management Attainment Report (MAR). In the past, the chargeable volume was divided into two components: 1) Regular (green live and recently dead resulting from insect/disease or fire) and 2) Non-interchangeable (pulp/cedar products and endemic mortality). See
Table 14 below.

Non-chargeable volume is not considered part of the ASQ, since it was originally not used in calculating the ASQ. Non-chargeable products include: firewood volume removed from unsuitable lands and volume too small or defective to meet regional utilization standards such as post and poles.

For reporting purposes, we are assuming the second decade chargeable volume will be 1,330 MMBF (133 MMBF per year) of regular components and 50 MMBF (5 MMBF per year) of non-interchangeable ASQ.

Monitoring Results: In this report, ASQ achievements will be based on the decade total. Volume is displayed in terms of MMBF.

Table 14: Chargeable Volume Sold in FY 1988-2004* (Volume Credited Toward ASQ on an Annual Basis)

	Decade 1Components (1988-1997)			
	Regular (133 MMBF per year)	Non-Interchangeable (5 MMBF per year)		Total
		Pulp	Cedar Products	
FY 1988	104.8	1.3	2.4	108.5
FY 1989	68.9	7.6	1.1	77.6
FY 1990	70.2	10.3	2.7	83.2
FY 1991	94.3	4.8	3.5	102.6
FY 1992	1.3	14.2	0.1	15.6
FY 1993	32.1	10.2	0.1	42.4
FY 1994	6.6	6.4	---	13.0
FY 1995	7.5	6.4	---	13.9
FY 1996	25.6	2.5	---	28.1
FY 1997	21.1	0.3	0.2	21.6
1st Decade Total	432.4	64.0	10.1	506.5
1st Decade Average	43.2	6.4	1.0	50.6
	Decade 2 Components (1998-2004)			
	Regular (133 MMBF per year)	Non-Interchangeable (5 MMBF per year)		Total
		Pulp	Cedar Products	
FY 1998	24.5	0.2	0.2	24.9
FY 1999	12.9	0.9	---	13.8
FY 2000	0.5	0.0	---	0.5
FY 2001	9.5	1.1	---	10.6
FY 2002	20.4	0.1	---	20.5
FY 2003	14.8	1.1	---	15.9
FY 2004	6.6	0.8	---	7.4
7 Year Total	89.2	4.2	0.2	93.6
7 Year Average	12.7	0.6	0.2	13.4

*Table information was based on the Nez Perce Periodic Timber Sale Accomplishment Report as of September 30, 2004.

Evaluation of Monitoring Results: The Forest continues to sell well below the Forest's ASQ, with FY03 accomplishment being approximately 11 percent of the regular component and 22 percent of the

non-interchangeable component. In FY 2003, the Forest sold 1.1 MMBF of the non-chargeable component (not counted as part of the ASQ). This was primarily pulp-wood and post/pole material. Three commercial sales were offered with two being sold and awarded in FY 2003. In FY 2004, the Forest sold 6.6 MMBF of regular component which was approximately 5 percent of ASQ and sold 0.8 MMBF of the non-chargeable component (not counted as part of the ASQ). Which is approximately 16 percent of ASQ as shown in Table 15 below

Table 15: Table ASQ Volume Sold to Date (2nd Decade)

Average Annual ASQ (2nd Decade)	2003 Chargeable Volume Sold	2004 Chargeable Volume Sold	Total Chargeable Volume Sold to Date (1998-2004)	% of Average Annual ASQ Sold for the First 7 years
133.0/year (saw logs)	14.8 MMBF	6.6	89.2 MMBF	9.6
5.0 MMBF/year (pulp/cedar products)	1.1 MMBF	0.8	4.2 MMBF	12.0
Total 138.0	15.9 MMBF	7.4	93.4 MMBF	9.7

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FINANCE VOLUME OFFERED ATTAINMENT BY COMPONENTS
(Forest Plan Monitoring Item 1H-2)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: Unacceptable interdisciplinary review results.

Discussion: Each year congress appropriates funding to accomplish annual timber targets. Given annual funding fluctuations, "timber targets" are not necessarily the same as the Forest's average annual ASQ. The achievement of financed "timber targets" differs from ASQ achievement in the following ways:

- Accomplishing "timber targets" takes place when a sale is offered, verses ASQ accomplishment credited when a sale is sold. Normally, 45-60 days elapse between sale offering (advertisement in the local paper) and sale selling (contract signing). Sales offered near the end of the fiscal year may be credited to the "timber target" in one fiscal year and credited to ASQ in the next.

- Non-chargeable offered volume (firewood and posts/poles) may be included in "timber target" achievement. The ASQ volume does not include non-chargeable volume.

Monitoring Results: Table 16, below, shows the that three commercial sales were offered in FY2003, with two being sold and awarded in FY 2003 totaling 15.9 MMBF (101% of the Forest's assigned target). Four commercial sales were offered in FY 2004, with four being sold and awarded in FY 2004 totaling 7.4 MMBF (29% of the Forest's assigned target).

Table 16: Chargeable and Non-Chargeable Volume Offered in FY 2003*

	Volume (MMBF) – FY 2003	Volume (MMBF) – FY 2004
Assigned Target	15.7	25.7
Accomplishment (Volume Offered)	15.9	7.4
% of Target	101.3 %	28.8%

***Table information is based on the Periodic Timber Sale Accomplishment Report from the database year-end summary.**

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ACRES TIMBER HARVESTED BY METHOD
(Forest Plan Monitoring Item 1i)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: Unacceptable interdisciplinary review results.

Monitoring Results: In FY 2003, 1257 acres were harvested, and in FY 2004, 2467 acres were harvested. Table 17 below, displays how acres were treated. In FY 2003, even-aged management was implemented on 92 acres, or seven percent of the harvest acres. The remaining 93 percent intermediate cuts. In FY 2004, even-aged management was implemented on 353 acres, or 14 percent of the harvest acres, and the remaining 86 percent were intermediate cuts.

Table 17: Nez Perce Forest Acres Treated by Treatment Type in FY 2003 and FY 2004

Treatment Type	FY 2003 Acres	FY 2003 Percent of Harvest	FY 2004 Acres	FY 2004 Percent of Harvest
Pre-commercial thinning	1088	Not Harvest	767	Not Harvest
Harvest Types				
Clear-cut w/Reserves	38	3	0	0
Shelterwood Prep Cut	0	0	36	1
Shelterwood Seed Cut	29	2	180	7
Seedtree Seed Cut	25	2	137	6
Intermediate Cuts	1165	93	2114	86
Total	**1257**	**100%**	**2467**	**100%**

Evaluation of Monitoring Results: The Forest Plan envisioned the mix of harvest types to be weighted toward even-aged management. The current mix (on a decadal basis) deviates from that planned mix. The actual acres of uneven-aged harvest are within the planned acres for the decade. The deviation from the planned harvest mix will not result in serious consequences.

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VEGETATIVE RESPONSE TO TREATMENTS
(Forest Plan Monitoring Item 2f)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years (Last reported in FY 2001, next report will be in FY 2006)

Variability that would initiate further evaluation*:* Data and analysis that would indicate that projected yields from regenerated stands are in error.

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ACRES OF HARVESTED LAND RESTOCKED WITHIN 5 YEARS
(Forest Plan Monitoring Item 4)

Measurement Frequency: Annual for 1-, 3-, and 5-year old regenerated stands

Reporting Period: 5 years (Reported in FY 2001, next report will be in FY 2006).

Variability that would initiate further evaluation: An interdisciplinary team reviews significant deviation from 5-year regeneration period after data.

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SITE-SPECIFIC EXAMINATION TO DETERMINE SUITABILITY OF LAND FOR TIMBER MANAGEMENT
(Forest Plan Monitoring Item 5)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 10 years (Last reported in FY 2001, next report will be in FY 2011)

Variability that would initiate further evaluation: Significant changes in suitable acres.

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MAXIMUM SIZE OPENING FOR HARVEST UNITS
(Forest Plan Monitoring Item 6)

Measurement Frequency: Annually (October 1, 2002– September 30, 2003)
Annually (October 1, 2003– September 30, 2004)

Reporting Period: Annually

Variability initiating further evaluation: Unacceptable results of an interdisciplinary team review.

Discussion: Openings, as addressed in the Northern Region Guide, apply to all even-aged silvicultural systems, which include clear-cut, shelterwood cuts, and seedtree seed cuts. For timber management purposes, these are openings until they have adequate stocking that averages 2½ feet or more in height.

Monitoring Results: Zero units which created openings over 40 acres in size were sold in FY 2003 and zero units in FY 2004.

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VALIDATION OF RESOURCE PREDICTION
(Forest Plan Monitoring Item 11)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 2-5 years (Last reported in FY 2001, next report will be in FY 2006)

Variability that would initiate further evaluation*:* If validation efforts show a need for changes to existing resource predictions.

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SOIL AND WATER QUALITY

1) What did we accomplish?

The Forest's watershed improvement program is limited by available funds to implement identified projects. The program rebounded somewhat in FY03 and FY04, partially due to the implementation of several projects funded by the Bonneville Power Administration through the Nez Perce Tribe.

- In FY 2003 the Forest accomplished 169 acres of soil and water improvement projects using a variety of funding sources. Thirty-one acres were improved using appropriated watershed funds, against an assigned target of 40 acres. In FY 2004, the Forest accomplished 123 acres using a variety of funding sources. Twenty-three acres were improved using appropriated watershed funds, against an assigned target of 9 acres. The Forest Plan goal is 200 acres per year.

- Water quality and stream flow monitoring was conducted at eight gauging stations. Data analysis was initiated in 2003 to detect trends in streamflow and sediment yield at two stations. This study was completed in 2004.

- Implementation monitoring was documented on one timber sale in 2003 and two timber sales in 2004.

2) What outputs and/or work were planned that did not get accomplished?

- Most project monitoring was qualitative rather than quantitative due to the funding constraints and work priorities. There are a number of watershed improvement projects that are cleared for implementation, but are waiting for funding and staff time for implementation. In FY03, a heavy fire workload precluded accomplishment of some projects.

3) What practices need to be changed based on monitoring results?

- None

4) What are the current resource conditions and trends compared to desired conditions?

- Watershed condition has likely improved gradually in most watersheds over the past decade, because of marked reductions in road construction and logging, and reduction of mining and grazing impacts. With some exceptions, there has also been a relative absence of large-scale stand-replacing wildfires recent decades. Recovery has been primarily natural. Watershed improvement projects within the last few years have become more ambitious in scope, including road obliteration and decommissioning, as well as mine reclamation projects and channel and valley bottom restoration projects.

- Subbasin-scale assessments identify the need to more highly emphasize restoration in certain key watersheds to recover aquatic habitat potential. Developing a coordinated strategy could increase recovery effectiveness. Recovery rates could be improved by giving higher priority to restoration in program planning and implementation.

WATER REHABILITATION AND IMPROVEMENTS
(Forest Plan Monitoring Item 1j)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: If the Forest did not achieve its fiscal year target.

Implementation Monitoring Results: The Forest's FY 2003 assigned and funded soil and water improvements target was 40 acres. The Forest accomplished 31 acres using watershed funds and 138 acres using other funds, totaling 169 acres. In FY 2004 the assigned and funded soils and water improvements target was 9 acres. The Forest accomplished 23 acres using watershed funds and 99 acres using other funds, totaling 123 acres. The Forest Plan goal is 200 acres per year.

Table 18: Acres of Watershed Improvements Accomplished in FY 1988-2004

Year	Funding Source				
	Soil and Water (Watershed Funds)	Knutson-Vandenberg (KV)	Roads	Other [1]Funding	Total
1988	74	52	113	70	309
1989	131	93	57	147	428
1990	159	82	76	3	262
1991	120	85	25	32	262
1992	214	79	82	12	387
1993	244	108	90	63	505
1994	243	79	77	43	442
1995	314	74	54	5	447
1996	190	46	2	1	239
1997	143	4	24	19	190
1998	85	4	0	0	89
1999	81	0	60	0	141
2000	169	7	61	0	237
2001	24	0	10	28	62
2002	20	10	11	21	62
2003	31	27	28	83	169
2004	23	0	45	55	123

[1] Other funding can include funds from Bonneville Power Administration, Pacific Coast Salmon Recovery, Resource Advisory Committee, Stewardship, Fisheries and Wildlife, Trails, Minerals, Timber Sale Contracts, Fire Rehabilitation or other funding source.

The following briefly summarizes FY 2003 watershed improvement projects:

About 13 miles (52 acres) of road decommissioning projects were accomplished. Eight miles were co-funded with national forest funds and Bonneville Power Administration (BPA) funds through the Nez Perce Tribe as part of the Meadow Face project. 3 miles were completed in Newsome Creek using BPA funds through the Nez Perce Tribe. 2 miles were part of a Rocky Mountain Research Station (RMRS)

study in the Horse Creek administrative study area. About 30 acres of riparian areas were fenced. About 40 acres of riparian areas were planted.

The following briefly summarizes FY 2004 watershed improvement projects:

About 16 miles (63 acres) of road decommissioning projects were accomplished. About 12 miles were co-funded with national forest funds and BPA funds through the Nez Perce Tribe as part of the Meadow Face project. About 2 miles were completed as part of the Starbucky project and 2 miles were completed as part of the RMRS study in Horse Creek. Planting of roadsides, other road improvements and trail improvements provided most of the remaining watershed improvement accomplishments.

Evaluation of Monitoring Results: From 1988 through 1996, the Forest exceeded its 200 acres per year Forest Plan watershed improvement goal. This goal was not achieved for FY 1997 through 1999, but was exceeded in FY 2000. In FY 2001 and 2002, the Forest had its lowest level of watershed improvement accomplishment since the Forest Plan came into effect. The accomplishments rebounded in FY 2003 and 2004, largely due to the completion of road obliteration work funded by the BPA via the Nez Perce Tribe. An overall watershed improvement program evaluation has not been conducted. In recent years, improvement projects have emphasized large road decommissioning projects, resulting in relatively high unit costs and lower total acres accomplished. Per unit area treated, on-the-ground effects of decommissioning projects are probably more significant and long lasting than many earlier approaches. In the near future, several large watershed restoration projects are scheduled for implementation. However, funding is unknown and the Forest could be financially limited in its ability to implement these projects.

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IMPACTS OF MANAGEMENT ACTIVITIES ON WATER QUALITY

(Forest Plan Monitoring item 2h

Measurement Frequency: Annually

Reporting Period: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Variability that would initiate further evaluation: Detected Idaho State Water Quality Standard violations or if Forest Plan fish/water quality objectives were not met within acceptable timeframes.

Monitoring Results: Stream flow and water quality data were collected at eight gauging stations. Variables sampled included stream discharge, suspended sediment, bed load sediment, water temperature, and conductivity.

Seven storage precipitation gages, five recording precipitation gages, five hydrothermographs, and two snow courses were maintained in FY 2003 and in FY 2004. Fire personnel conducted additional weather monitoring in both years.

Water temperature data were collected at about 50 sites across the Forest using electronic reading thermographs. Annual temperature data collection began about 1990.

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

The Northern Region continued evaluation of high mountain lakes for sensitivity to long-term deposition of atmospheric sulfate, nitrate, and ammonium. On the Nez Perce National Forest, Shasta Lake, located in the Selway Bitterroot Wilderness, was selected as a long-term study site. Field data were collected at Shasta Lake in 1996 and 1998-2004.

Evaluation of Monitoring Results: Streamflow and sediment yield data analysis from gauged water quality monitoring stations is ongoing. In FY 2003, the Forest initiated a study of streamflow and sediment yield using data from the Red River and South Fork Red River stream gages. The study was completed in September, 2004 (Thomas and King, 2004). The study was intended to update existing analyses of annual sediment yield, to determine if trends in streamflow and sediment yield can be detected, and to test the NEZSED sediment prediction model.

This study examined sediment yield data for gauging stations on Red River and South Fork Red River for sixteen years during the period of 1986 through 2001. Observed data contributing to the analysis were streamflow, depth-integrated suspended sediment samples and Helley-Smith bedload samples. The combined totals of suspended and bedload samples were 400 for Red River and 404 for South Fork Red River.

Monitoring data in Red River were useful in assessing trends in aquatic habitat condition. Trends in the sediment transport-stream discharge relationship were analyzed at the two gauging stations in Red River for the period of 1986-2001. This analysis grouped the data into the periods 1986-1990, 1991-1993, 1994-1995 and 1996-2001. The groupings were based on assigning similar numbers of samples to each group. It was found that the period of 1991-1993 had the largest sediment load estimate relative to discharge. This was consistent for suspended and bedload sediment yield at both stations. There was no consistent detectable trend in the sediment transport-stream discharge relationship between the first and last period of the study. Although it appears that sediment yield relative to discharge has generally declined since the 1991-1993 period, this cannot be said for the entire period of study. The average annual results for the period of record were also compared with NEZSED estimates. In Red River, the model under-predicted by about 26% and in South Fork Red River, the model under-predicted by about 11%.

The authors noted differences in results of this study versus Gloss (1995). This could be in part due to the additional period of record or different techniques used to estimate missing streamflow data and different techniques used to estimate annual sediment yield from observed data. They also recommended additional analysis incorporating samples collected with automated suspended sediment samplers.

Water temperature data has continued for over 10 years at some sites and it is becoming evident that recent years have shown higher summer water temperatures than earlier years. These trends will continue to be monitored and implications for aquatic species management considered.

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WATER QUALITY – PROJECT LEVEL ADMINISTRATION REVIEWS AND FIELD STUDIES
Forest Plan Monitoring Item 2i

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: Violations of Forest Plan standards or Idaho Water Quality Standards.

Monitoring Results: Forest-level interdisciplinary monitoring was conducted on two timber sales in 2003 and 2004. The forest reviews checked compliance with Forest Plan standards, environmental document requirements and regulatory agency requirements. The field review also met the Forest's obligation under a Memorandum of Understanding with the State of Idaho to monitor ten percent of activities that fall under the Idaho Forest Practices Act Rules. In addition to the Forest reviews, the Idaho Department of Lands conducted an audit of one timber sale in 2004 as part of its quadrennial audit process of Idaho Forest Practices Act Rules.

Burnt Flats Salvage Sale:
The Burnt Flats Fire started in August, 2000 and burned about 20,200 acres. The Burnt Flats Salvage Decision Notice was signed in February, 2002 and approved about 9 million board feet of timber harvest on 800 acres. The logging was completed in 2003.

A field review was conducted on October 2, 2003. Representatives from Nez Perce National Forest, Idaho Department of Lands, Idaho Department of Fish and Game, Idaho Department of Environmental Quality and NOAA Fisheries attended. Three stops were made on the field review. A summary is provided below.

Stop #1 – The first stop was at a helicopter landing on Free Use Point. Timber sale units 23, 24 and 43 were yarded to this point, for a total of about 1.4 million board feet. The area had been used as a landing before, therefore the road system was in place. The primary resource concern at the landing was protection of the broadfruit mariposa lily, a sensitive plant. The area was not decompacted or seeded after the activity in order to protect the lily bulbs. The bulbs were also protected by elevating log decks on logs.

Stop #2 - This stop was at Unit #28, which was shovel-logged and included construction of a temporary road. There was some soil disturbance (displacement and compaction) associated with the logging, but this was not quantified. The riparian area was buffered from timber harvest. However, some concentrated cattle use had damaged the stream and riparian area. Firewood cutting also occurred in the riparian area, in violation of the personal use firewood permit. A temporary road had been ripped and covered with slash, but had recently been reopened by woodcutters. The effectiveness of the road obliteration and the firewood permit restrictions were questioned by several participants. Due to the flat terrain in the area of the unit, the effectiveness of closure is limited, because users will move to an adjacent location to gain access. Concern was also expressed about grazing impacts in the riparian area.

Stop #3 - This stop was at Unit #5, which was tractor-logged, excavator-piled and included construction of a temporary road. The road was temporarily left open for woodcutters, but was planned for decommissioning. The IDFG recommended that additional road restrictions be applied for big game security. It was noted that this unit did not meet the large snag retention guidelines developed in the Environmental Analysis. This was due to the prescription, subsequent blowdown and safety standards for logging operations. It was noted that leaving snags in clumps may be better than leaving individual, widely-spaced trees. The discussion also included whether snags need to be left within harvest units when adequate numbers of snags exist outside the unit.

The activities reviewed in the Burnt Flats Salvage Sale were found by IDL to meet or exceed the Idaho Forest Practices Act Rules.

Yew Rock Timber Sale:

The Meadow Face EIS and Record of Decision were completed on February 11, 2003. The Yew Rock Timber Sale was awarded on February 25, 2004. About 70% of the volume was harvested through, FY 2004. The remainder of the harvest is currently halted due to legal injunction. A field review was conducted on October 26, 2004. Representatives from Nez Perce National Forest, Idaho Department of Environmental Quality, US Fish and Wildlife Service and NOAA Fisheries attended. Four stops were made on the field review. Three of these were at timber sale units and the fourth was at a culvert replacement site, not directly associated with the timber sale. A summary of observations and findings is provided below.

Stop #1 – This stop was at Road #337 and Unit 3A. There was a discussion pertaining to the placement of road gravel and the impacts of skidding on the road. The timber sale contract requires placement of the gravel prior to logging, but this results in contamination of the gravel during skidding operations. Also, during development of the contract, the amount of gravel was reduced from four inches to two inches due to sale economics. The tradeoffs of not skidding on the roads include additional soil disturbance. In general, it was determined that skidding on the road, followed by repairs as needed for trafficability and sediment control, was the best option. Another discussion at this site focused on the need to control public motorized traffic on temporary roads. In this case, mitigation in EIS required closure to public motorized traffic, but this was not included in the timber sale contract. It was generally agreed that such discrepancies should be avoided in the future through use of a mitigation checklist and better coordination between planning and implementation.

Stop #2 - This stop was at Units 1A and 1B. These units were originally designated as skyline yarding to a single temporary road located near the ridgeline. Due to deflection considerations caused by the shape of the slope and the location of the road, to accomplish this would have required intermediate skyline supports. Rather than require this, an additional temporary road was built below the slope break and mechanized ground logging was authorized on portions of the units. This resulted in additional soil disturbance beyond the original plan. There were differences of opinion as to the best course of action in such situations, but it was agreed that better planning of logging systems is needed to avoid future recurrences.

Stop #3 – This stop was at Units 9C and 9D. These were units that had undergone previous logging, which had resulted in detrimental soil disturbance exceeding Regional guidelines and Forest Plan standards. As a result, mitigation was required under the timber sale contract to reduce compaction from existing and planned skid trails. The contract required use of a hydraulic excavator to accomplish this, but that may not be possible in future contracts. Also, the costs of implementing the soil restoration were

underestimated in the timber sale contract. Coordination is needed at the Regional and Forest level to resolve these issues on future timber activities.

Stop #4 – This stop was at the Storm Creek culvert replacement site. This work is planned for implementation in 2006. The discussion centered around the objectives of the replacement (aquatic organism passage and improved hydraulics) and the design parameters. Closure of the road and monitoring requirements were also discussed. It was agreed that the project planning should continue on its current course.
The activities reviewed in the Yew Rock Sale were determined to meet or exceed the Idaho Forest Practices Act Rules.

Honker II Timber Sale:

The Honker II Timber Sale was authorized under the Hungry Mill EIS and ROD, signed on March 17, 1997. It was selected for review by the Idaho Department of Lands under the Statewide Forest Practices Act quadrennial audit. The field review was conducted on September 10, 2004 and involved representatives from the Nez Perce National Forest and the Idaho Department of Lands. Four timber sale units were reviewed and the results are summarized below.

Stop #1 – This stop was at Units 68 and 69. It included a temporary road that was built to access the units and then subsequently decommissioned through recontouring. The temporary road including a crossing of a perennial Class II stream. The crossing was accomplished using a 24 inch corrugated metal pipe that was left in place through one spring runoff season, then removed. Since it was left in place past the operating season, it fell under the Forest Practices Act culvert sizing rule. The culvert was undersized by one increment using the tables provided in the rules, but met the alternative criteria using peak flow equations approved by IDL. As such, it met the FPA requirements. Harvesting, skidding and slash disposal in the units also met FPA requirements.

Stop #2 – This stop was at Unit 71. The inspection checked the cleanout of the system road ditch, as it was affected by the logging. This was determined to meet FPA requirements.

Stop #3 – This stop was at Unit 77. There was a Class II Stream Protection Zone within the unit, which was fully protected from harvesting and skidding. The unit was partially logged in the summer and partially in the winter. The skid trails used in the summer were decompacted and obliterated. This exceeded FPA requirements for erosion control, but was deemed by IDL to be a beneficial practice worthy of future consideration.

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IMPACTS OF MANAGEMENT ACTIVITIES ON RIPARIAN AREAS
(Forest Plan Monitoring Item 2j)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: If the reviews or studies discover violations of Forest Plan standards.

2003-2004 Riparian Monitoring:
Riparian monitoring is conducted during project planning, implementation, and following completion of management activities to determine how closely Forest Plan management standards are being followed.

Implementation Monitoring determines

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

In addition, monitoring determines if PACFISH standards that constitute Forest Plan amendment 20, or additional guidance from the regional aquatic conservation strategy, are being followed.

National wetland inventory maps are consistently used for initial wetland and riparian area delineation, but site-specific projects usually result in identification of numerous additional wetlands and small streams. Preferential consideration of wetland resources now occurs very consistently, due to PACFISH standards, and consultation requirements under the Endangered Species Act. Landslide prone areas are considered under PACFISH as riparian habitat conservation areas, also, and delineation and evaluation of landslide prone terrain has improved in these two years.

Effectiveness Monitoring determines if the implemented practices were adequate to:

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

The primary mechanisms for effectiveness monitoring are watershed condition surveys that are completed during watershed assessments and in the course of project design, field reviews of completed projects, and resource-specific reviews such as riparian range monitoring. For the years 2003-2004, riparian monitoring is treated elsewhere under these headings.

Some range riparian effectiveness monitoring is usually addressed in Range Analysis and Allotment Management Plan Updates *(Forest Plan Monitoring Item 1l)*, but none has been compiled for 2003-2004.

Some riparian elements were monitored in field reviews. See Water Quality – Project Level Administration: Reviews and Field Studies (*Forest Plan Monitoring Item 2i*) under the Burnt Flats Salvage Sale and Honker II Timber Sale.

Validation Monitoring determines whether the data, assumptions, and coefficients used in soil and vegetation response models are correct. No validation monitoring was done in the years 2003-2004.

Results:

This report includes information from October 1, 2002 through September 30, 2004.

Implementation Monitoring:

Environmental analyses and watershed assessments completed in 2003 and 2004 used some site-specific and considerable GIS-based information to describe riparian area condition and indicators within assessment and project areas, and developed priorities for protection or restoration. This information was carried forward to project designs (See Red Pines EIS and American River-Crooked Rivers EIS, both completed in 2005).

Delineation, evaluation, and protection through avoidance or mitigation, are widely and consistently used for riparian areas, including landslide prone terrain.

Effectiveness Monitoring:

The little amount of riparian effectiveness monitoring done in 2003-2004 does not warrant much interpretation.

The activities reviewed in the Burnt Flats Salvage Sale were found by IDL to meet or exceed the Idaho Forest Practices Act Rules. Localized cattle impacts in riparian areas caused some damage.

In the Honker II sale, a Class II Stream Protection Zone within the unit was fully protected from harvesting and skidding.

Results and Discussion

The low levels of riparian monitoring, and even lower level of data compilation and synthesis, suggest that riparian monitoring may not be getting enough emphasis. A regional monitoring team (for compliance with the PACFISH-INFISH Biological Opinion) have done some reach level monitoring in 2005, which should address some of these deficiencies, and could provide a model for additional riparian monitoring.

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VALIDATION OF RESOURCE PREDICTION MODELS – WATER QUALITY AND FISH
(Forest Plan Monitoring Item 11)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 2-5 years

Variability that would initiate further evaluation: If validation efforts show a need for changes.

Monitoring Results: The Forest uses NEZSED, an adaptation of the R1/R4 Sediment Yield guidelines (USDA Forest Service, 1981) to estimate average annual sediment yields. NEZSED model tests were done on natural sediment yield for several first and second order streams in 1987. In 1994, an evaluation of NEZSED on eight 3rd to 5th order streams was completed through a master's thesis. The 1994 analysis was conducted with data from eight gauging stations collected during 1986 through 1993. In 1995, NEZSED was tested against sampled data from two larger sub-basins. In 2003, a new study of streamflow and sediment yield trends using 16 years of data from 2 gauging stations was initiated. The results of this study are summarized under Item 2h above.

Evaluation of Monitoring Results: Evaluation is ongoing.

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IMPACTS OF MANAGEMENT ACTIVITIES ON SOILS
(Forest Plan Monitoring Item 2g)

Measurement Frequency: Annually October 1, 2001 – September 30, 2002
Annually October 1, 2002 – September 30, 2003
Annually October 1, 2003 – September 30, 2004

Reporting Period: Annually

Variability that would initiate further evaluation: If more than 20 percent of an activity area has sustained significant or permanent impairment of the productivity of the land.

2002-2004 Soil Monitoring:
Soil monitoring results were not reported in FY 2002 due to other Forest Priorities. The FY 2002 as well as FY 2003 and FY 2004 monitoring results are provided in this monitoring report. Soil monitoring is conducted during project planning, implementation, and following completion of management activities to determine how closely Forest Plan management standards are being followed.

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

Effectiveness Monitoring determines if the implemented practices were adequate to:

1. Maintain 80 percent of an activity area in a productive condition, without detrimental compaction, displacement of surface soil, or puddling (loss of soil structure), and

2. Minimize erosion and sloughing on road cuts and erosion on other activity areas.

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

Monitoring Results: This report includes information from October 1, 2001 through September 30, 2004,

Implementation Monitoring:
Environmental analyses and watershed assessments completed in FY 2002, FY 2003, and 2004 used soil information to describe soil limitations and condition within the assessment area, and developed recommendations for avoidance, restoration, or mitigation.

The emerging issue regarding soil potassium (an essential plant nutrient) was addressed in analyses initiated in FY 2003 and FY 2004.

Soil information was consistently used to predict sediment production. Predicted sediment was used to help select number, location, design, scheduling, and mitigation of land disturbing activities.

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

Effectiveness Monitoring:

Effectiveness monitoring in 2002 and 2003 emphasized characterization of soil conditions on past harvest units in the Meadow Face Stewardship Pilot Project area, the Red River watershed assessment and Red Pines project area, Mackay Day timber Sale, Brunt Flats Timber salvage, and the Blacktail project area.

Meadow Face Stewardship Pilot Project: 2002
Soil condition assessment was conducted during the field season of 2002 to provide current information on the condition of the soil resources in the proposed timber harvest units. This inventory was conducted on all Meadow Face proposed tractor units and about 80 percent of the proposed skyline units. The proposed helicopter units have had some past logging, with soil disturbance limited mostly to excavated roads, widely spaced, and a few skid trails. Helicopter logging is low impact and does not add detrimental soil disturbance.

The methods used for the additional assessment in 2002 follow Howes (2000). The objective of the 2002 inventory was to better characterize existing soil conditions in the proposed timber harvest units, particularly with respect to effects from previous timber management activities. These effects primarily include soil compaction and displacement from tractor harvest and site preparation. The inventory describes Soil Disturbance Classes based on observable characteristics and relates to soil damage criteria. The field methods included establishing a series of transects within the proposed timber harvest units with individual monitoring points along the linear transects. At each monitoring point, the appropriate disturbance class was determined through surface and soil observations. Results from the inventory provided the basis for prioritization of needed soil restoration activities.

Soil Disturbance Classes

Class 0 – Undisturbed – No evidence of past equipment operation.

Class 1 - Slight disturbance – Site is virtually undisturbed. Some faint impressions of wheel tracks or slight depressions evident I unit. No evidence of platiness in surface soils.

Class 2 - Some disturbance – Some visible indications of past equipment operation. Surface soils intact but may show some signs of compaction (i.e. minor amounts or discontinuous platy soils at the soil surface. No evidence of surface soil removal.

Class 3 - Moderate disturbance – Surface soils intact but show evidence of compaction and puddling (surface platiness or lack of structure). Depressions or old wheel tracks evident. Small amounts of surface soil removal.

Class 4 – High disturbance – Surface soils partially or totally removed or mixed with subsoil material. Evidence of surface soil removal. Some pedestalling at base of trees.

Class 5 – Severe disturbance – Evidence of excessive or extreme surface soil removal. Surface soils absent. Soils exposed, compacted, or removed.

Class 6 – Altered drainage – Alteration of internal soil drainage characteristics. Results in permanently saturated soils or standing water. This was adapted to also include areas of soil excavation into the substratum, with surface and subsoils removed.

Results and Discussion

Table 19 shows the compilation and results of the soil condition class transects on the Meadow Face Timber Harvest Activity Areas. Unit 1 and 31 are units that were chosen for undisturbed controls that had not been logged before. These units were transected and found to have undisturbed soils in condition class 0 or 1. These units served as controls for other units where soils were too detrimentally disturbed to sample controls. The bulk density sampling was used to determine the degree of compaction in soil classes 2 and 3. The increase in bulk density in soil class 3 almost always exceeds 20 percent over the control.

The objective for the units that currently have more than 20 percent detrimentally impacted soils is to restore soil productivity, where it is feasible, by implementing soil restoration activities in the areas after timber harvest to show improving trends in the soil resource. A second objective, common to all activity areas, is to minimize new disturbance of the soil during logging, and restore any disturbance that occurs.

Table 19: Results for the Meadow Face Soil Transects for Total Detrimental Disturbance for Timber Harvest Activity Areas

Unit Number and Logging System	Total Existing Condition Percent Detrimental Disturbance Soil Condition Classes 3-6
1-tractor	27
1-skyline	0
2-tractor	38
3-tractor	8
9-tractor	31
10-skyline and tractor	95
11-tractor	81
12-tractor	100
13-tractor	36
15-tractor	54
16-tractor	49
17-tractor	56
18-tractor	20
19-tractor	86
20-skyline and tractor	100
22-tractor	8
22-skyline	43
27-skyline and tractor	23
31-skyline and tractor	0

Red River Watershed Assessment and Red Pines project: 2003 and 2004 Monitoring

About 28,465 acres, or about 37 percent of the lands susceptible to compaction in the watershed, have experienced tractor logging and/or dozer piling of slash. Seventeen stands were sampled using the Soil Resource Condition Assessment protocol described above. Summary results are shown in Table 20 below.

Additional sampling occurred in units proposed for harvest as part of the Red Pines projects. Some of these units included stands or portions of stands that had been logged before. That monitoring data is presented in Red Pines EIS, pages 3-33 to 3-34.

Stands that were tractor logged and dozer piled averaged 52 percent damaged area; stands that were tractor logged and broadcast burned averaged 38 percent damage. All stands that had been tractor logged and dozer piled exceeded forest plan standards (30-82 percent detrimental disturbance). Stands tractor logged and but not dozer piled or scarified sustained 12-42 percent detrimental disturbance. Many of these would substantially exceed current 20 percent Forest Plan standard for soil detrimental disturbance. Compacted and excavated skid trails and landings are still evident in tractor-logged areas. Invasion by weeds and slow tree establishment and growth are apparent in compacted and displaced areas. Soil compaction may also contribute to increased erosion in skid trails where ruts channel water. Because the surface soils are silt loam derived from volcanic ash, they do not recover over decades since disturbance (Dumroese, 1993 and Dumroese et al., in review). There was a slight trend toward improvement over time due to changed practices, with application of Forest Plan standards in 1987, but detrimental

disturbance of about 35 percent was still common. This is consistent with other studies from throughout the west.

Table 20: Soil Monitoring Results from Selected Stands in Red River Watershed

Stand ID	Logging System History	Slash Disposal Method History	Total Soil Damage (Percent)
50905006	Tractor/Clearcut 1964	Dozer piled/ burn windrows	82
51107001	Tractor clearcut 1965	Dozer piled/burn windrows	53
50804001	Tractor clearcut 1968	Manual Site prep and wildfire 1970	38
51107003	Tractor clearcut 1970	Broadcast burn	35
82002005	Tractor clearcut 1971	Dozer piled/burn windrows	64
52203007	Tractor seed tree 1973	Dozer piled/burn piles	72
51302008	Tractor clearcut 1974	Dozer pile/burn windrows	63
51304005	Tractor clearcut 1974	Broadcast burn	11
51206005	Tractor clearcut 1974	Broadcast burn	42
51103002	Tractor overstory removal 1975	Dozer piled but little evident	12
52205001	Tractor clearcut 1978	Broadcast burn	66
51304024	Tractor clearcut 1980	Dozer piled and broadcast burned	47
50901003	Cable seed tree 1981	Broadcast burn	4
52203015	Tractor clearcut 1991	Mechanical site prep	31
52205045	Tractor clearcut 1991	Dozer piled or scarified	38
50804026	Tractor seed tree 1992	Mechanical site prep? Or whole tree yarded?	30
51107015	Tractor seed tree1995	Broadcast burn	60

Several units in the watershed had been dozer piled so that slash and topsoil were windrowed and burned. Where these burned hot, on southerly aspects, recovery of vegetation and surface organic matter has been delayed as much as thirty years. Twenty-four nutrient samples (each from a core 6 inches deep by about 1.75 inches in diameter) were collected, 6 from each of 4 harvest units. Each harvest unit had 3 samples from unvegetated slash window piles and 3 samples from revegetated and stocked areas of the plantation. Bulk density samples were taken from the same sample areas and from adjacent unharvested sites. Bulk densities did not differ among windrowed, regenerated, or unharvested sites, although harvested sites had mean soil bulk densities slightly higher than the unharvested. The high natural variability in bulk density would require more samples for a conclusive analysis. Comparisons of nutrients (pH, phosphorus, potassium, ammonium-nitrogen and nitrate-nitrogen) did not show significant differences between windrowed and regenerating sites, except for pH, which was significantly higher for burned areas ($p = .000$), but not levels that would limit plant growth (6.1 compared to 5.6).). It is possible that changes immediately after burning, with consequent loss of microbiological organisms, could be responsible for the long term poor recovery of these sites.

Similar symptoms of poor regeneration (and weed susceptibility) were also observed in numerous other burn piles during the course of fieldwork throughout the Red Pines project area. Persistent bare areas susceptible to weed invasion are seldom observed in these moist habitat types after wildfire, so it appears that heavy concentrations of fuels on the ground, burned very hot during the course of slash disposal, may result in soil alteration that persistently impairs soil productivity. Based on aerial photo sequences,

revegetation appears to be occurring very slowly as organic matter development and biological recovery occur.

Mackay Day Timber Sale: 2003

Two harvest areas were sampled on the Mackay Day timber sale in the South Fork Clearwater River subbasin. Objectives of monitoring were:

1) To determine if feller buncher/processor, log forwarder and grapple piling activities result in soil conditions that meet forest plan or regional soil quality standards. Forest standards state: A minimum of 80 percent of an activity area shall not be detrimentally compacted, displaced, or puddle upon completion of activities. Regional soil quality guidelines state: At least 85 percent of an activity area must have soil that is in satisfactory condition. Compaction in excess of a 15 percent increase in natural bulk density is considered detrimental. An activity area is considered for these purposes as a timber harvest unit to which the activity is applied.

2) To determine if Region 6 soil assessment protocols using 6 disturbance classes can be correlated with probability of compacted or displaced conditions.

Unit 1a was harvested Oct – December 2000. Equipment was a feller buncher/processor. Logs were forwarded uphill over a slash mat on slopes of 5-20 percent to the landing. Weather and soil moisture conditions varied from dry to moist. The unit was excavator piled in summer 2001, and piles were burned in fall 2001. The prescription was a seed tree harvest with reserves in lodgepole pine. 20 samples of the first 6.5 inches of mineral soil were taken from points well distributed throughout the unit.

Unit 2 was harvested in October 2000. Equipment was a feller buncher/processor. Logs were forwarded downhill over slopes of 5-15 percent over a slash mat to the landing. Weather and soil moisture conditions varied from dry to moist. The unit was excavator piled in summer 2001, and piles were burned in fall 2001. The prescription was a thin in mixed conifer larch, lodgepole pine, and grand fir. Observations on November 6, 2000 by the district hydrologist stated: "Slash mats were thick and almost completely covered the forwarder trails… The only soil disturbance was observed near the road access to the unit, where trails converged." 10 samples of the first 6.5 inches of mineral soil were taken from points well distributed through the west half of the unit, which does not differ in slope or aspect from the east half.

Both sites are on convex ridges at about 5600 feet elevation. Parent materials are Batholith granodiorite and belt quartzite and schist. Soils have a surface layer 6-10 inches thick of volcanic ash influenced loess. Habitat types are grand fir/beargrass.

Protocols followed Howes et al., 1983, adapted using Region 6 soil resource condition assessment protocols (Howes, 2000). 10 100-foot transects were done in each unit. Transect starting points were located at 250 foot intervals along diagonal lines crossing the unit. Transect azimuth was based on a random number. Bulk density cores were collected every 5 feet along each transect.

Unit 1a showed 63 percent detrimental soil disturbance. Mean bulk density prior to harvest was .89 gm/cm^3. Bulk density after harvest, across all disturbance classes, was 1.07. Excavated trails to accommodate the grapple piler contributed markedly to soil displacement, but moderate compaction was also widespread. This unit exceeded Forest Plan and Regional soil quality standards. It appeared that, although only the excavated trails showed soil much displacement, the passage of harvester and forwarder over much of the unit contributed to widespread moderate soil compaction.

Unit 2 showed 43 percent detrimental soil disturbance. Mean bulk density prior to harvest was .85 gm/cm^3. Bulk density after harvest, across all disturbance classes, was .96. Variability was much higher in Unit 2, with some transects showing little compaction, and no excavated skid trails were built, but this unit still exceeded Forest Plan and Regional soil quality standards.

Both units showed less incidence of the soil mixing that is prevalent with dozers or conventional skidding. This is an improvement where retention of the integrity of the volcanic ash cap is important. However, the need to move all over the unit, to each tree, for harvest, and again with the excavator, means that compaction may be widespread. The compaction may be less irretrievable than mixing and displacement, but more efforts to reduce the frequency and extent of equipment passage, and reduce need for more kinds of equipment running over the site, are warranted. Yarding over slash did not provide as much benefit as predicted. This is consistent with recent research (Han et al., 2005).

The use of the Region 6 qualitative soil condition assessment procedure seems to be justified as an efficient mechanism for rapid soil condition assessment, so long as numerous well-distributed transects are done. Table 21 below shows mean bulk density by qualitative condition class.

Table 21: Proportion of Each Condition Class that exceeded 15 percent increased bulk density

Condition Class	Proportion
1: Little apparent impact:	.275
2. Slight impact:	.373
3. Moderate compaction	.613
4. Hot burn, mixed, or surface scraped	.702
5. Heavy scrape to subsoil	.887

Analysis indicates that Classes 1 and 2 do not differ from one another, but Classes 3, 4, and 5 all have significantly greater bulk density than the classes (1 and 2) indicative of low impact. Classes 3, 4, and 5 may not be distinguishable by degree of compaction, but they carry additional information on degree of excavation and topsoil loss so that their retention is merited. Classes 1 and 2 may not have enough difference to be retained as different classes.

Blacktail: 2003

Landslide Prone Area Identification: Field reconnaissance surveys focused particularly on areas where preliminary indicators of slope stability were present. This included over 50 percent of the analysis area. Eighty percent of the high-risk land types were field sampled within the proposed harvest and burning units and 70 percent of the moderate land types was field sampled. Notes taken by the project soil scientist across transects of proposed moderate and high-risk timber sale units are found in the project file on Clearwater Ranger District. Most of the areas of questionable stability were mapped during the field visits, and recommended to be dropped from commercial harvest. The areas that were stable, and high priority for fuels treatment, were retained in the harvest proposal.

The upper watersheds and ridges in the Blacktail area have similar soils and logging history as the upper Meadow Creek area. Most of the tractor logging that had the most detrimental impacts took place in the 1950s through the 1970s. Logging history and methods are similar to that in the Meadow Face area documented above

Burnt Flats Salvage: 2004

This sale was developed to salvage merchantable dead and dying trees after the 2000 Burnt Flats fire; and harvested in 2003. Unit 18 was a cut tree mark, with hand falling and skidding by rubber tired skidders.

The stand was in Douglas-fir/ninebark habitat type, with medium to large ponderosa pine and Douglas fir. Original (pre-fire) canopy closure is estimated at 40-60 percent. Soils are shallow, with abundant angular basalt rock fragments throughout. Surface soils are mixed residuum and volcanic ash, gravel and small cobble.

Initially, we tried to use a RIMIK ultrasonic cone penetrometer to assess soil resistance, but found the soil to be too rocky. Using Region 6 soil condition assessment protocols described above (Howes, 2000) we laid out 1350 feet of transect back and forth across the unit from a random start.

Based on the linear measurements, 1% of the unit was in condition class 1, 61% condition class 2, 37% condition class 3, and 1 % condition class 4. Condition class 4 (subsoil exposure) was due to naturally occurring tree uprooting as snags fell down. Condition class 3 (apparent compaction), was widespread but appeared slight in degree, and this means conclusions are difficult to draw with respect to whether the unit meets Forest soil quality standards. Some compaction may have occurred due to prior livestock grazing. Only the main ridge-top skid trail was impacted enough to show any entrenchment (about 2 inches) and weeds or bare soil were typical ground cover on this trail. Given the shallow, rocky soils, actual extent of compaction across the unit is difficult to estimate, but this unit may be at or below the 20 percent detrimental disturbance threshold of the current Forest Plan. The high rock content may have formed bridges that helped reduce machine impacts (Froelich, 1978). Weed establishment and expansion is a common by-product of ground disturbance on dry sites such as these, and some measures to maintain or restore permeability on main skid trails and landings, and re-introduce native grasses and forbs, are recommended. Post-harvest monitoring for weeds and post-harvest weed treatment is recommended in future harvests on such sites.

Validation Monitoring:

No validation monitoring occurred in the years 2002, 2003, nor 2004.

Monitoring Evaluation:

Implementation monitoring indicates that use of soil information in project design is improving, and that qualitative soil condition assessment methods, if carefully calibrated with more quantitative methods, are an efficient means to characterize existing conditions and past impacts.

Effectiveness monitoring of old activities indicates how widespread detrimental disturbance has been on some old activity areas, and how newer harvest systems and widespread use of grapple piling instead of broadcast burning present their own challenges in terms of soil resource protection.

Soil restoration has been proposed on many new projects, and restoration technology is not well described, either in design or effectiveness. Restoration activities should be a priority for monitoring as they occur.

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RANGE

1) What did we accomplish?

- Basic permit administration was accomplished on active allotments.
- Implementation monitoring of the Annual Operating Instructions was accomplished.
- Allowable use levels were monitored on active allotments.

2) What outputs and/or work were planned that did not get accomplished?

- Scheduled allotments were not assessed in the NEPA process.

3) What practices need to be changed based on monitoring results?

- Additional effectiveness monitoring sites along sensitive stream channels are needed.
- Improve administration and inspections of existing range improvements to ensure that required maintenance is completed.
- Improve communication between fish biologists, range specialists, and permittees concerning effective grazing practices and riparian habitat management for federally listed fish.

4) What is the current resource condition and trend compared to the desired condition?

- From visual assessments and implementation monitoring, riparian areas generally appear to be improving or maintaining conditions within active allotments. There remain isolated areas where grazing is affecting specific riparian attributes. Long-term effectiveness monitoring is needed to validate these assessments.
- Upland (non-forested) vegetation is generally in stable condition. However, many low elevation grasslands have a significant component of annual grasses or exotic forbs. Little change is expected in the condition of non-forest vegetation over the next five years.

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ANIMAL UNIT MONTHS GRAZING PERMITS
(Forest Plan Monitoring Item 1g)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation*:* ± 10 percent of Forest Plan Estimate

Monitoring Results: The Forest permitted 32 permittees to graze 28,439 animal unit months (AUMs) during the FY2003 and FY2004 grazing seasons. The Forest authorized 25,105 animal unit month in FY 2003 and FY 25,705 2004. Actual use information indicated that permittees in general placed less than the authorized level of livestock on the allotments. Forest-level actual stocking on the allotments was approximately 15 percent less than the current permitted levels.

Table 22: Grazing Permitted Use and Authorized Use in FY 2003 and FY 2004

	Cattle (AUMs)	Horses & Burros (AUMs)	Sheep & Goats (AUMs)	Total AUMs
Permitted to Graze in FY 2003	25,292	89	3058	28,439
Authorized to Graze in FY 2003	23,060	89	1956	25,105
Permitted to Graze in FY 2004	25,292	89	3058	28,439
Authorized to Graze in FY 2004	23,672	89	1944	25,705

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RANGE ANALYSIS AND ALLOTMENT MANAGEMENT PLAN UPDATES
(Forest Plan Monitoring Item 1l)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: ± 10 percent of Forest Plan Estimate

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

All allotments needing analysis have been placed on a schedule to be completed by 2015. The schedule is updated to reflect changes in resource information, Forest management priorities, Forest Plan Revision and funding. With current funding levels and Forest priorities, allotment revision planning efforts scheduled for FY 2003 and FY 2004 have been postponed to future years.

Monitoring Results: The goal of grazing management is to maintain desirable riparian conditions and achieve recovery of streams not in satisfactory condition. Grazing guidelines have been incorporated into Annual Operating Instructions for grazing allotments. The following grazing guidelines are used to

manage livestock and to estimate the time when animals need to be rotated away from sensitive stream reaches.

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

Stream reaches accessible to livestock were monitored. Forage utilization, shrub browsing and bank disturbance were estimated as the inspector walked the designated stream reaches. Generally, implementation monitoring found grazing to be within the standards prescribed in the Annual Operating Instructions.

Evaluation of Monitoring Results: Monitoring suggests permittees were successful in meeting the annual operating instruction grazing standards stated. At a few locations, use/disturbance met allowable standards and permittees herded animals to underutilized areas. Each time this occurred, the permittees promptly removed livestock from the area of concern. Grazing along many streams was far below the annual operating instruction allowable levels. Monitoring results and grazing management were reviewed and discussed with the Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries to ensure allotment management complied with the biological assessments.

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RECREATION

1) What did we accomplish?

- The Forest continued use of a new financial reporting system that required completion of a new trail and recreation database.
- Forest personnel continued conducting a physical inventory of recreation and trail assets (20 percent per year) per Forest Service direction. At the end of 2003, condition surveys were completed for 100 percent of our facilities.
- Continuation of the Recreation Fee Demo Program. This includes all the current fee campgrounds and the cabin rental program.
- In FY 2003 a Vegetation Management Plan for the Red River Campground was completed. This is the first campground vegetation management plan completed in R-1 during the past 10 years.
- Implementation of the Red River Camp Ground Vegetation Management Plan was begun with the removal of hazard trees from the site in FY 2003.
- In FY 2003 and FY 2004 the Forest cooperated with the Idaho Department of Parks and Recreation, Idaho County Snowmobile Advisory Committee, and local snowmobile clubs of Elk City, Dixie, Kooskia, and Grangeville, to groom 330 miles per year of snow trails in State Snowmobile grooming Areas 25 A and 25 B.
- The Forest worked with a variety of volunteer groups to complete trail maintenance, trail reconstruction and rehabilitation, signing, campground maintenance, and visitor contacts. These volunteers were members of organizations representing motorized trail vehicles and stock users. Many individuals not associated with organized groups also volunteer their skills to assist with the accomplishment of many recreation-associated tasks. In FY 2003, volunteers and partnerships, including Idaho Department of Parks and Recreation and State Trail Rangers Program, completed approximately 14 percent of our trail maintenance, and in FY 2004 they completed about 11 percent or 126 miles.
- Cooperated with Idaho Parks and Recreation in the Park N' Ski program to provide for seven miles of groomed and tracked cross-country ski trails at the Fish Creek Recreation Area in FY 2003 and in FY 2004.
- The Forest administered 40 recreational special use permits per year for outfitter/guides, recreation events and resort programs.
- Maintained developed recreation sites including campgrounds, boat ramps and swimming areas.
- In FY 2003, in conjunction with Idaho Parks and Recreation Dept., the Forest completed installation of new water systems at O'Hara and Johnson Bar Camp Grounds.
- Reconstruction of the Square Mountain Trailhead was completed in FY 2003.
- Reconstruction of the Moore's Station Trailhead was completed in FY 2004.
- Reconstruction/Construction of 30.8 miles of trail was completed in FY 2003 and 13.2 miles in FY 2004.

- Maintenance of 1,430 miles of trail was completed in FY 2003 and 1,172.2 miles in FY 2004.

2) What outputs and/or work were planned that did not get accomplished?

FY 2003

- Slims CG was closed the majority of the use season due to fire closure.
- Lookout Butte rental cabin was closed awaiting SHPO clearance and necessary repair work.
- Red River CG fees were not charged due to problems with the water system.
- Available funding and personnel limited new recreation special-use permits to 1-3 day events.

FY 2004

- Red River CG fees were not charged due to problems with the water system.

3) What practices need to be changed based on monitoring results?

- The Forest needs to monitor trail and cross-country vehicle impacts, particularly those created by Off Highway Vehicles (OHVs).
- A new system providing better estimates of the number and kinds of recreation users needs development.
- Conduct a comprehensive Forest review of changes in ROS classification areas.
- Unmanaged OHV recreation is a big concern. The current use of single-track trails by OHVs is creating a difficult situation for access management. The new national OHV rule may help the forest mitigate that problem.

4) What are the current resource conditions and trends compared to desired conditions?

While the national trend for National Forest recreational use continues to increase, recreation budgets for the Nez Perce National Forest have declined or remained flat over the past several years. Factors such as increasing fixed overhead costs and other resource management priorities in the agency continue to negatively affect the amount of funds available to unit recreation programs. The result has been the loss of permanent and seasonal recreation positions, reduced maintenance of recreational facilities, a smaller recreation special-use program, and fewer miles of trails maintained to standard. Despite our funding problems, the forest managed to keep most of our recreation facilities open during FY 2003 and FY 2004. This was due in part to dedicated employees, grant money, partnerships, and volunteer assistance. It is a reasonable assumption that recreational use of the Nez Perce National Forest will continue to increase in the near future. Increased use will present a challenge as recreation budgets are projected to decrease over the next few years. Our recreation and trails program could be affected in the following ways:

- Operation and maintenance of recreational facilities will have reduced service levels
- Some campgrounds could be closed

- Fewer miles of trails will be reconstructed and maintained.
- The ability to process recreation special-use permits will be reduced

Given the circumstances, it will be important for the Forest to determine public needs and manage our organization to meet those needs to the best of our abilities.

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ACRES OF RECREATION OPPORTUNITY SPECTRUM (ROS) CATEGORY
(Forest Plan Monitoring Item 1b)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years (Last reported in FY 2001, next report will be in FY 2006).

Variability that 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 specific in the Plan.

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OFF-ROAD VEHICLE IMPACTS
(Forest Plan Monitoring Item 2a)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years (awaiting completion of a study)

Variability that would initiate further evaluation: Unacceptable impacts caused by off-road vehicle use.

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ADEQUACY OF CULTURAL RESOURCE PROTECTION, IMPACTS ON CULTURAL RESOURCES
(Forest Plan Monitoring Item 2b)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years (Reported in FY 2001, next report will be in FY 2006).

Variability that 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.

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LIMITS OF ACCEPTABLE CHANGE IN WILDERNESS
(Forest Plan Monitoring Item 2c)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years (Next report will be in FY 2006)

Variability that would initiate further evaluation: After a 5-year review period, changes in wilderness exceeded acceptable limits.

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ACHIEVEMENT OF VISUAL QUALITY
(Forest Plan Monitoring Item 2d)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years (Last reported in FY 2001, next report will be in FY 2006).

Variability initiating further evaluation: After 5 years of monitoring, an assessment indicates visual quality objectives are not being met.

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RIVER RECREATION RESOURCES

1) What did we accomplish?

Routine river patrols were conducted throughout the control seasons on the Main Salmon and Selway Rivers in both FY 2003 and FY 2004. Two patrol crews were employed on the Main Salmon River (one from Slate Creek and one from North Fork Ranger Stations). The availability of Fee Demonstration funds allowed for river patrols before and after the Control Season. Shoulder season patrols were conducted as long as flows permitted on the Selway included before and after the control season. While shoulder season patrols on the Main Salmon began in mid-April in FY 2003 with a trail crew support float and continued through November in order to contact as many hunters and fisherman as possible.

2) What outputs and/or work were planned that did not get accomplished?

Funding levels did not permit staffing the temporary backcountry ranger position to provide a Forest Service presence in the Rapid River Wild and Scenic area.

3) What practices need to be changed based on monitoring results?

Efforts to provide river users with information regarding requirements need to be emphasized at river portals. This includes public and outfitted river users. Methods employed will include launch ramp briefings, outfitter and guide meetings, launch site information boards and participation at outdoor conventions

4) What are the current resource conditions and trends compared to desired conditions?

Generally, resource conditions on the Forests designated rivers are excellent. River patrols report increased incidents of micro-litter at lunch and campsites, human and pet waste deposits and camp/cooking fire debris.

MANAGEMENT OF DESIGNATED OR ELIGIBLE WILD, SCENIC, OR RECREATIONAL RIVER SEGMENTS
(Forest Plan Monitoring Item 2n)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years (FY 2004)

Variability that would initiate further evaluation: Following a 5-year period, information that would indicate management direction for designated eligible wild, scenic, or recreational rivers is not being followed.

Monitoring Results: The Nez Perce National Forest is managing designated and eligible Wild, Scenic or Recreational Rivers according to approved management plans or Forest Plan direction. Approved Management Plans exist for the Salmon Wild and Scenic River (2003), Middle Fork Clearwater River

(including the Lochsa and Selway Wild and Scenic Rivers), and the Hells Canyon National Recreation Area Comprehensive Management Plan (including the Rapid River Wild and Scenic River (2003)..

Routine river patrols are conducted annually, during the control season on the Main Salmon and Selway Rivers. In addition, patrols have been performed during the more unregulated shoulder seasons on both rivers. Annually, four control season patrols and two shoulder season patrols are conducted on the Selway River, while seven control season and three shoulder season patrols are conducted on the Main Salmon River. Additional day use patrols are completed during big-game and steelhead fishing seasons in the late fall. Patrols of the Rapid River are less frequent and often conducted with other routine activities such as trail maintenance or permit administration.

The patrol objectives include:

4) Maintain Forest Service presence on the designated rivers,
5) Enhance cooperation with other authorities responsible for river corridor management,
6) Initiate public contacts to ensure river users apply lo-impact camping techniques, comply with laws and regulations, and reduce or resolve user conflicts,
7) Perform routine campsite inspections and cleanup
8) Monitor and treat noxious weed infestations
9) Monitor and protect significant heritage and natural resources
10) Provide opportunities for resource managers and other partners to conduct management activities within the river corridor
11) Routinely visit with landowners and others to foster positive relationships and monitor the status of scenic easements, land exchanges and special uses within the river corridor
12) Participate in planning processes concerning the future management of the river corridor and
13) Conduct the river management activities with the foremost attention to the health and safety of participants and other river users.

During the last five years, project effects on eligible river segments were considered during planning process included:

- Burnt Flats Salvage
- Meadow Face
- Clean Slate
- Rapid River trail Head
- American and Crooked River Project
- Selway Falls prescribed fire
- Elkhorn Jersey Ignition Project
- Whitewater Prescribed fire

Projects proposed for the future that will address the project effects on eligible river segments include:

- Blacktail Fuels Reduction Project
- Blackerby Salvage
- O'hara Goddard prescribed fire

- Frank Church-River of No Return Wilderness Noxious Weed Treatment

All the projects listed above have or will meet Forest Plan standards for designated or eligible wild, scenic, and recreational river segments.

Evaluation of Monitoring Results:

River program management will continue at current levels with stable funding. The availability of river user fees (Salmon River Fee Area and Outfitter & Guide use fees) has allowed the extension of patrol activities outside the peak use periods. This opportunity has permitted river rangers to visit with spring and fall users to provide information regarding river plan requirements and has resulted in greater compliance.

Introduction:

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

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

Table 23 is a list of the classified rivers that the Nez Perce National Forest is partially responsible for managing. This list is broken down by length, Wild and Scenic River Designation. ROS category, and activities associated with the river. Accordingly, river management on the Nez Perce National Forest must be viewed in a regional and national context considering how our rivers contribute socially and ecologically to the Wild and Scenic River system.

Table 23: Classifed Rivers on the Nez Perce National Forest

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

Needs:

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

Levels and types of use have increased on the Selway Recreation River, and change in private landownership has made scenic easement administration more difficult. Public interest surrounding the recent Hells Canyon management decision and Frank Church River of No Return Final Environmental Impact Statement readily demonstrates the complexity and controversy associated with river management issues. In addition, ecological impacts such as noxious weed invasion and private land subdivision threaten the character and integrity of our classified river corridors. Following are specific issues or threats to Nez Perce National Forest and adjacent area rivers.

14) Social

a. Loss of Agency credibility with members of the public interested in river management
b. Increased use/demand for use of rivers administrated by the Nez Perce National Forest. Demand for use is the result of management decisions in other areas (i.e. increased user fees on Colorado River, recent Hells Canyon decision).

15) Ecological

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

16) Administrative

a. Development of unprotected private lands situated in classified river corridors.
b. Lack of policy and management consistency between districts, forest, and regions: and with other agencies.

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

i. Secure sufficient resources to accomplish at least base level management functions.
ii. Enhance opportunities to secure additional resources.
iii. Improve efficiency in accomplishing our tasks.

Goals

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

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

Program Components

Important elements needed for a successful forest rivers program:

1. Provide for full Forest Service presence within the river corridors during entire period when use is significant (control and shoulder seasons). Such a presence would result in:

    a. Promotion of low impact river use and deliver wilderness ethics messages.
    b. Assurance that all river corridor us3ers have the necessary trip permits and equipment and are otherwise complying with requirements for use during the control seasons.
    c. Maintaining the river corridors in clean, natural conditions year-round through monitoring, inventories, inspections, and clean-ups of the riverbanks, campsites, and other high-use areas.
    d. Routine visits and development of positive relationships with land owners, user groups, and special interest groups.
    e. Be available to assist the public in any safety situation on the river, and to assist the Idaho County Sheriff's search and rescue operations as needed.

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

3. Assist with implementation of the Franck Church River of Not Return Wilderness Noxious Weed Environmental Impact Statement.

4. Continue involvement with wilderness planning, implementation, and monitoring (Frank Church River of No Return Wilderness environmental Impact Statement, Selway Bitterroot Plan, and Hells Canyon Management Plan including Rapid River).

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

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

7. Increase other USFS personnel's familiarity with the Nez Perce Forest Classified Rivers and associated Wilderness. Facilitate involvement with forest, regional and Washington D.C. office4 program managers, specialists, and researchers.

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

9. Provide historic and prehistoric cultural resources interpretation.

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

Accomplishments (FY 2003 and 2004)

- Maintained Forest Service presence (primarily through river patrols) on Salmon and Selway Rivers during and outside of control seasons. Selway river patrols were extended beyond the control season to monitor increased floating use resulting from favorable late season water levels and to assess visitor impacts on campsites.

- Continued cooperative management between various river managers for numerous activities and projects (the Nez Perce, Clearwater Forest, Salmon-Challis, Payette National Forest, BLM, Idaho Fish and Game, and Idaho Department of Parks and Recreation). The Moose Creek Ranger District hosted the spring 2004 River Management Society River Ranger Rendezvous. This event was attended by river rangers from throughout the northwest.

- Continued public contacts using information/educational framework to ensure rivers users apply low impact camping techniques, to ensure compliance with the laws and regulations to reduce user conflicts. Approximately 2,230 people were contacted on the main Salmon and several hundred visitors contacted o the Selway River.

- Maintained the river corridors in excellent condition through routine inspections and campsite cleanups. The Selway River beaches continued to be found in pristine conditions. An average of about 750 pounds of garbage, primarily resulting from early and late use, was removed annually from the Main Salmon.

- Noxious weed management: River patrols, with the assistance from many volunteer groups pulled approximately 50 acres per year of noxious weeds (primarily spotted knapweed and rush skeleton weed) on the Main Salmon River. Over the years such projects have restored dozens of previously infested campsites. During 2003 and 2004, ongoing inventories of the high elevation drainages occurred. In addition, extensive weed inventories were initiated and pulling occurred on several campsites.

- The Forest continues to successfully work with the Salmon-Challis National Forest in the administration of the Salmon River Recreation Fee program.

- River patrols supported and assisted the scenic easement, weeds, trails, legislative awareness, and fisheries programs.

- River managers frequently visited private landowners/managers who live within the river corridors, maintaining the working relationships necessary for effective management of the river canyons.
- Forest river managers assisted in the development of the Final Environmental Impact Statement and Subsequent Management Plan for the Frank Church River of No Return Wilderness.

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FIRE

1) What did we accomplish?

The Forest continued successful implementation of the Federal Wildland and Prescribed Fire Management Policy in FY 2003 and FY 2004. This included using appropriate management response, wildland fire use, and management ignited prescribed fire to meet Forest Plan goals, standards, and expectations. The Forest met its goal to prevent, suppress and manage fire commensurate with resource values to be protected, while recognizing fire's ecological role. We implemented five key points of the National Fire Plan: firefighting, preparedness, restoration, and rehabilitation of burned areas, hazardous fuels treatment, community assistance and accountability.

National Fire Management Analysis was completed in 1997, establishing a most cost efficient level (MEL) for the Nez Perce Forest. This analysis helps establish the annual fire protection funding level. In FY 2003 the Forest was funded at 95 percent of MEL, slightly up from FY2002. In FY 2004, the Forest was again funded at 95 percent of MEL, which was slightly up from FY2003.

Above average wildfire acres were recorded on the Forest during the summer of 2003 and below average in 2004. Drought conditions that have affected the Clearwater region since the fall of 1998 continue to moderate some, but long-term precipitation deficits continue. Weather patterns across the northern Rocky Mountains were strongly influenced by El Nino conditions beginning in 1998 and continued through the winter of 2003. These El Nino conditions diminished to neutral by the end of 2003 and remained neutral through the summer of 2004. A northwest flow aloft dominated the weather over the Pacific Northwest into Northern Idaho in the Fall and Winter of 2003 and continued into the summer of 2004.

The hot dry summer of 2003 set the stage for large and long duration fire events beginning in early July. The Forest was slightly touched be several large storms that hit Western Montana hard in mid to late July. The Forest received a full share of lightning ignitions in early August. All Districts received many new starts and several large fires resulted.

The Clearwater/Nez Perce Forest area utilized 14 incident management teams in 2003 to manage large fire events. From August 11 to September 12 seven incident management teams were managing fires on the Nez Perce Forest, one was a wildland fire use team. For the first time, we had an Area Command Team stationed in Grangeville to coordinate the efforts of the various incident management teams. We made Resources assigned to the Zone were extensively used to suppress the large fires. Fire Management Officers agree there would have been more large fires without ready access to available crews and helicopters. Expanded dispatch was staffed in Grangeville for 57 consecutive days to support large fires.

Precipitation the first week of September brought a dip in Energy Release Component (ERC) to below the 90th percentile for the first time in two months only to see a rebound to record setting levels again by the first of October. The rebound was short lived as some moisture associated with shorter days and good humidity recovery limited further fire activity.

All indications by early spring of 2004, were that 2004 would be a challenging fire season similar to the record setting 2003 season. Conditions were mild and generally dry through March into April with widespread moisture episodes moving across the Clearwater region in May and June, these

decreasing somewhat in July. The effect of spring moisture resulted in a fire danger that was slow to move above normal values. Temperatures in mid July tended to dry all fuel classes and by late July Energy Release Component (ERC) values had moved above the 90%+ range. Wet thunderstorm activity the second week of August quickly lowered fire danger back to below normal levels and record setting precipitation in September resulted in a much below average fire season overall. Kelly Cr. received 30+ inches of precipitation between May and October while Powell experienced 19+ inches for the same time

There were no large wildfire events requiring an incident management team on the Forest in 2004. Wildfire activity remained below average across the entire Northern Region despite the continuation of precipitation deficits.

The periodic rain events followed by only short drying periods both helped and hindered the prescribed burning program on the Clearwater Forest. The large landscape scale burning projects designed to treat natural occurring fuels never came back into prescription after the initial wetting rain events in August. A "green up" of live fuels occurred in September further reducing the ability to ignite natural fuels. As a result the Forest never reached its planned target. The burning of activity fuels created by timber harvest actually surpassed expectations on the Forest. Heavy fuel loadings with large quantities of freshly cured fine fuels found in harvest units ignited and burned readily. Fuels consumed rapidly and a rain event soon eliminated any risk, quickly allowing additional units to be ignited. This cycle continued through September and into October, greatly reducing a backlog of activity fuels treatments.

Figure 4: Clearwater/Nez Perce Forest Fire Management Zone Energy Release Component

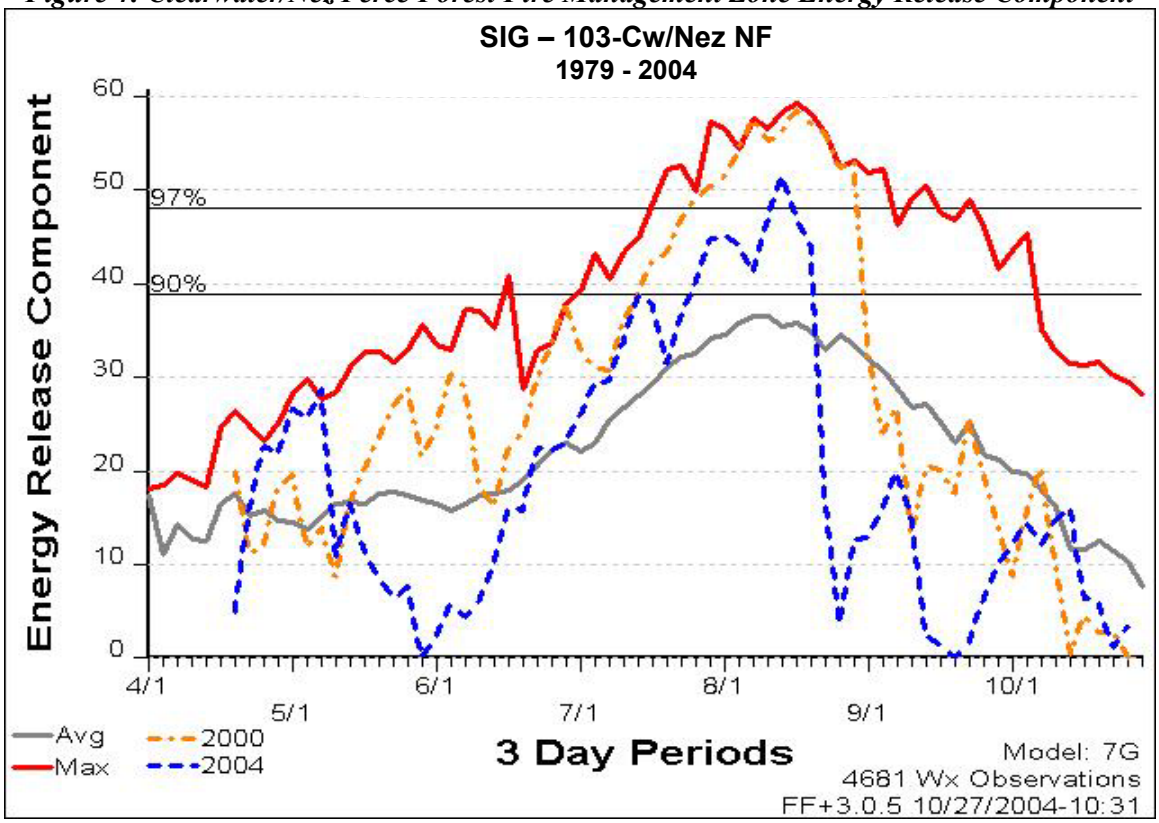

Table 24: Nez Perce National Forest FY 2003 Large Fires

Fire	Administrative Unit(s)	Acres
Bear	Moose Creek	2,174
Pettibone Creek	Moose Creek	11,833
Pinchot	Moose Creek	2,434
Slims	Moose Creek	12,011
Poet	Red River	2,574
Sapp*	Red River	9,686
Berg	Salmon River	2,102
Fiddle	Salmon River	708

*The Sapp Fire started on Payette National Forest and burned onto Red River District, Nez Perce Forest

Table 25: Nez Perce National Forest FY 2004 Large Fires

Fire	Administrative Unit(s)	Acres
Three Links 2 (WFU)	Moose Creek	153
North Battle (WFU)	Moose Creek	882

- All wildfires on the Forest were successfully managed under appropriate management response policies. Lightning fire starts and, therefore, total fire starts and total acreage were above average, with Moose Creek RD having more than double the 10-yr average number of fires in FY 2003. Human caused fire starts were about average. In FY 2004 Lightning fire starts were 70% of the 10 year average, while person caused fire starts were about 1½ times the 10-year average. A total of 119 fires occurred on the Forest in 2004, Almost 30% of these fires were managed for resource benefit (WFU).
- The 10-year trend for managing natural ignitions for resource benefits shows an increase. Table 28 and *Figure* 6 show 7,072 acres were burned for resource benefits in FY 2003. A total of 1,153 acres burned on the Forest in 2004, this is less that 8% of the 10-year average. 1,108 acres of the total burned acreage on the Forest occurred on fires being managed for resource benefit.
- The Brush Disposal MAR target of 600 acres was met, with 606 acres treated in FY 2003 and 1,167 acres treated in FY 2004.
- Clear/Nez Fire Zone met with Fire Cooperators on a number of issues and programs, including the development county disaster plans, community protection, hazardous fuels treatment around communities, and on economic development strategies.
- The primary hazardous fuels treatment accomplishment of 14,908 acres was 142% of the assigned target in FY 2004.
- FY 2004 was the first year the Forest was required to track secondary fuels treatments. These included approximately 550 acres of precommercial thinning and 350 acres of commercial thinning of overstocked stands, and 1,300 acres of activity fuels treatment. WFU acres burned are considered a secondary fuels treatment that totaled 1,100 acres.

2) What outputs and/or work were planned that did not get accomplished?

- The natural fuels program target of 9687 acres (7840 non-WUI + 1847 WUI) was not met in FY 2003. Actual accomplishments were 2132 acres (2035 non-WUI + 97 WUI). Spring and fall weather caused conditions exceeding prescription parameters. The Forest accomplished 5663 acres with Wildland Fire Use in FY 2003.

- The Grangeville based National Air Tanker never arrived here due to the grounding of the PB4Y segment of the fleet. However, Idaho Department of Lands positioned two single engine air tankers at Grangeville, which saw wide spread Forest use in FY 2003.

3) What practices need to be changed based on monitoring results?

- Activity fuel treatment and hazardous fuels treatment monitoring should be done in an interdisciplinary setting to ensure all resource objectives are being identified and met.
- The monitoring of acres treated by fire need to be improved across the Forest (Wildland Fire Use and prescribed fire). Monitor by Land Type Association to see if we are meeting objectives to maintain and sustain healthy ecosystems. Monitoring of burn severity needs to occur.

4) What are the current resource conditions and trends compared to desired conditions?

Appropriate Management Response

- Suppression oriented responses to wildland fires are generally successful; this continues the past trend of wildland resource protection.

- Fuel accumulation has occurred, increasing the risk of larger more intense fires. The trend toward higher intensity fires is a departure from historic variable fire intensity patterns on the landscape.

Prescribed Fire

- Fewer acres are being burned today from both planned and unplanned ignitions than burned historically (before fire exclusion policies began). The recommendations from subbasin assessments and watershed analyses are for increased prescribed fire and/or natural fire in most ecosystems. The need is greatest in short fire return interval ecosystems. The Forest has been increasing hazardous fuels treatments.

- The passage of the Healthy Forest Restoration Act and Healthy Forest Initiative will be useful tools and may expedite the NEPA process for qualifying projects.

- Field reviews indicate prescribed burning objectives are being met.

- Despite increases in prescribed burning, the need for fire disturbance processes identified in subbasin assessments will be difficult to meet.

- The trend for prescribed fire projects is for increasingly complex objectives, constraints, and mitigations (i.e. air quality, noxious weeds) potentially constraining future accomplishments.

Wildland Fire Use

- Natural fires in wilderness areas are returning some areas to a more historic vegetative condition. However, fires are burning fewer acres than were burned in the pre-exclusion era and current fire intensities are often higher than in the past. The desired condition would be a return to historic fire regimes with greater acreages burned at lower fire intensities; recognizing that some areas do need to burn at higher intensities (i.e. mosaics).

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ACRES AND NUMBERS OF WILD AND PRESCRIBED FIRES
(Forest Plan Monitoring Item 1K)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years (last reported 2002 next reporting date FY 2007)

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

Monitoring Results

Fire & Aviation Management: Our goals are to prevent, suppress, and manage fire commensurate with resource values, while recognizing the fires ecological role. We will implement the five Key Points of the National Fire Plan: 1) firefighting preparedness, 2) restoration and rehabilitation of burned areas, 3) hazardous fuels treatment, 4) community assistance, and 5) accountability. The National Fire Plan is the Plan of Work identified in The Impacts of Wildfire on Communities and the Environment, A Report to the President In Response to the Wildfires of 2000.

Strategy

- Analyze and display organizational needs using the National Fire Management Analysis System to determine the most cost efficient fire management organization.

- Continue to stress SAFETY as the first priority in all fire management activities with special emphasis on the aviation program, firefighting and recurrent training in Standards for Survival.

- Continue the use of appropriate management responses under Federal Wildland Fire Policy to meet fire management objectives.

- Integrate Ecosystem Management concepts into fire management programs. Look at ways to utilize and incorporate fire treatment into sustaining healthy ecosystems, concentrating on restoration of fire adapted ecosystems

- Continue to use fire to accomplish management objectives for hazardous fuel reduction, site preparation, wildlife habitat improvement and ecosystem management through prescribed fire and wildland fire use programs. Continue wildland fire use implementation consistent with the Forest Plan and National Fire Policy.

- Continue cooperation with other fire protection agencies; evaluate fire protection boundaries to promote economic and efficient fire suppression. Work with communities to increase fire protection capability and support expansion of economic diversity.

- Provide a cadre of specialists with the knowledge and experience to accomplish prescribed fire programs and participate as members of the wildland fire Incident Command System.

- Ensure sufficient funds are collected from timber sales to abate activity created fuel hazards. Manage the trust fund account to ensure all work is completed.

- Continue to support and be involved in achieving the goals of habitat improvement and the restoration of elk under the Clearwater Elk Initiative.

- Continue to implement the North Idaho Smoke Management Airshed guidelines and coordinate prescribed burning and wildfire smoke impacts with this group and adjacent cooperators.

- Implement Fire and Aviation Management activities through the Fire Management Plan including preparedness staffing, qualifications, initial action, large fire suppression, wildland fire use and use of Minimum Impact Suppression Tactics for lands under the protection of the Clearwater National Forest.

Fire Organization

The Clearwater and Nez Perce National Forest fire organizations operate under a zone concept. The Clear/Nez Fire Zone is comprised of a shared Forest fire staff, one Deputy fire staff, one fire planner, one fuels specialist, a zone aviation officer, and a common fire dispatch/coordination center that is staffed with a zone dispatch coordinator, assistant coordinator, two dispatchers, and three aerial observers. There are eight Districts on the fire zone, four on each Forest. District fire management organizations are responsible for the planning and implementation of fire related activities on their respective units. The zone is host to two Type III helicopters with supporting personnel modules and two national shared resources, the Grangeville Smokejumper program and a full service retardant base housed at the Grangeville Air Center. Cooperators play a very important role in the success of the fire zone. Currently we have agreements with the State of Idaho, Bureau of Land Management, Nez Perce Tribe, Clearwater Potlatch Timber Protection Association, and several Rural Fire Departments. In addition there is a Tri-Region agreement in place that includes the Umatilla, Payette, and Wallowa-Whitman National Forests.

Fire Staff Officer Ken Castro accepted a new position with the NPS in Santa Fe, NM. Bob Gilman detailed in as Fire Staff for the 2004 fire season on the Clear/Nez Fire Zone Laura Barrett was hired to fill the Zone Fire Planner Position. Dennis Crew filled the vacant Dispatch Coordinator position. A complete description of roles and responsibilities of personnel/positions involved in the Clear/Nez Fire Zone Management Operations can be found in the 2004 FMP.

Preparedness

The Forest continued implementation of the Federal Wildland and Prescribed Fire Management Policy. This policy was adopted nationally in 1998 and incorporates nine guiding principles and provides consistent fire management direction for all federal agencies.

Funding to protect Forest resources from fire is based on the National Fire Management Analysis System,

an analysis tool designed to determine the most efficient level of fire protection budget. This analysis is based on fire history, fire weather and past organizational levels. It then establishes the most cost efficient mix of personnel, equipment and budget needed to provide firefighting resources to met land management objectives. The program was last certified in 1997 and the most cost efficient organization was determined. Costs to produce MEL are updated annually through out year budget submissions.

The Forest's total allocated budget, including GAC resources, for FY 2003 was $5,775,000 and $5,110,000 in FY 2004

The Forest most efficient level of funding was about 95 percent in FY2003, slightly up from FY02 and again at 95% in FY 2004 slightly above the previous year.

The Forest staffed a 10-person helitack crew and Type III exclusive use helicopter at Grangeville Air Center (GAC) in FY 2004. An additional 10-person helitack crew and Type III exclusive use helicopter was stationed at the Musselshell work Center generally for use on the Clearwater side of the Fire Zone.

The Fire Zone hosted and staffed a Type II helicopter at GAC in FY 2004. This initial attack resource was a nationally contracted supplemental exclusive use aircraft prepositioned on the Zone in an effort to mitigate for the loss of the large air tanker program.

Idaho Department of Lands positioned 2 Single Engine Air Tankers in Grangeville this year which saw wide spread service on the Forest in FY 2003 and FY 2004.

The Clearwater/Nez Perce Fire Zone met with fire cooperators on a number of issues and program, including the development of county disaster plans, community protection, hazardous fuels treatment around communities and on economic development strategies in both FY 2003 and FY 2004.

Wildfire Detection

Nez Perce wildfire detection is primarily provided by our staffed Lookouts and fixed wing detection flights. The type of detection, number of fires located and percentage of the total number of fires detected is displayed in Table 26. Orofino Aviation provided three exclusive use and two optional use single engine light fixed wing aircraft for fire reconnaissance, relief air attack, fire mapping, detection and point-to-point passenger service for the Clearwater-Nez Perce Fire Zone in both FY 2003 and FY 2004.

Table 26: Fires by detection method, FY 2003 and FY 2004

Detector	Number of Fires in FY 2003	Percent FY 2003	Number of Fires in FY 2004	Percent FY 2004
FS Aircraft	97	40.4	27	22.7
Lookout	76	31.7	56	47.1
FS Employee	38	15.8	14	11.8
Other	23	9.6	15	12.6
FS River Patrol	0	0.0	1	0.8
Other Aircraft	3	1.3	1	0.8
Permittee	2	0.8	2	1.7
Cooperator	1	0.4	3	2.5
Total	240	100	119	100

Statistical Cause:

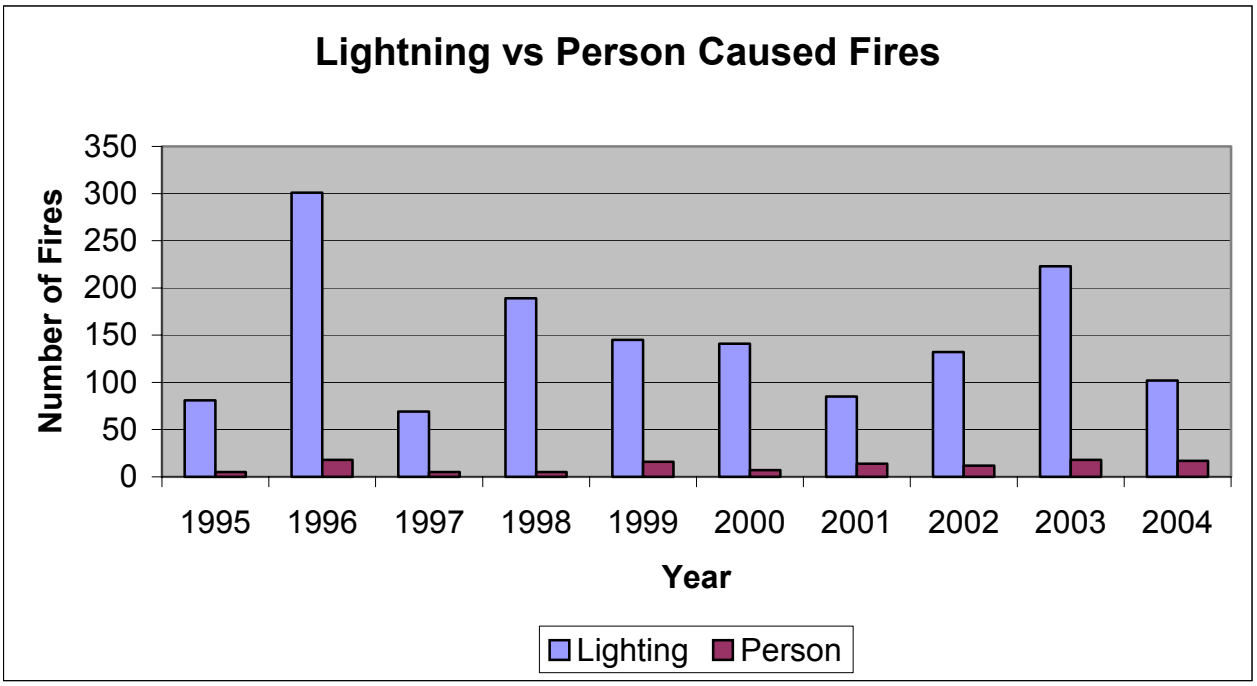
The Nez Perce National Forest had 20 person-caused fires that burned a total of 2441.6 acres. Lightening fire acreage includes 7072 acres of WFU in FY 2003. The number of fires by cause is displayed below in Table 27.

Table 27: Number of Fires by Cause, FY 2003& FY 2004

CAUSE	NUMBER OF FIRES FY 2003	PERCENT FY 2003	ACRES FY 2003	NUMBER OF FIRES FY 2004	PERCENT FY 2004	ACRES FY 2004
Lightning	220	91.7	42262.2	102	85.7	1133.3
Campfire	10	4.2	314.3	13	10.9	1.9
Debris Burning	2	0.8	21.2.1	1	0.8	0.5
Vehicle Burning	2	0.8	0.2	0	0.0	0.0
Burning Building	1	0.4	12.0	0	0.0	0.0
Equipment	1	0.4	0.3	0	0.0	0.0
Smoking	1	0.4	0.1	0	0.0	0.0
Fireworks	1	0.4	0.5	0	0.0	0.0
Arson	0	0.0	0.0	1	0.8	16.5
Power Line	0	0.0	0.0	1	0.8	1.0
Miscellaneous	2	0.8	12.1	1	0.8	0.3
Total	240	100%	44703.8	119	100%	1153.5

A comparison of FY 2003 fires and FY 2004 fires to the previous 10-year and 20-year average can be found in Figure 5 below.

Figure 5: Nez Perce Forest Fire Occurrence



Fire Suppression

The Nez Perce National Forest is responsible for the protection of approximately 2,177,884 acres of land. Due to shortages of available firefighting resources the Forest and the Zone had to prioritize which fires posed the most significant threat to life, communities, property and resources in FY 2003. Those that posed the greatest risk, received limited firefighting resources to suppress fires in some cases, control or contain portions of fires to protect critical resources and in other cases to simply monitor fires in backcountry or wilderness areas where these fires were managed under a confinement suppression response or where appropriate under a Wildland Fire Use for Resource Benefits response. In FY 2004 resources were generally adequate through the fire season for the Forest to manage a high percentage of its fire starts under a Wildland Fire Use for Resource Benefits response.

In FY 2004 wildfires were attacked and suppressed in accordance with the Fire Management Action Plan. The intent of the Nez Perce National Forest Plan standards and guidelines were met by implementing an array of suppression strategies, called the appropriate management response. Each fire was assessed as to its fire potential and location within each land allocation. A suppression strategy was assigned to best fit each fire situation.

The 2003 fire season was above average on the Nez Perce National Forest in terms of numbers of fires and acres burned. The FY 2004 fire season was much below average. The ten-year average (1995-20004) for number of fires is 158 per year. The ten-year average (1995-2004) for acres burned was 14,576 acres per year.

In FY 2003, the Forest had a total of 240 new starts, 21 were managed for Wildland Fire Use for Resource Benefit, and 219 incurred some type of suppression response.

In FY 2004, the Forest had 199 new starts, 35 were managed for Wildland Fire Uses for Resource Benefit, and 84 incurred some type of suppression response.

- In 2003, 37,632 acres burned on the Forest (figure only includes wildland fires with an appropriate management response of confine or control), see Table 28.
- In 2004, 1,153 acres burned on the Forest.
- In 2004, 44.7 acres burned on the Forest (figure only includes Wildland fires with an appropriate management response of confine or control), see Table 28.

The Forest maintained a good safety record throughout the very tough 2003 and the mild 2004 fire seasons.

Minimum Impact Suppression Tactics guidelines were used for all lands protected by the Nez Perce National Forest. Minimum Impact Suppression Tactics guidelines are specifically written to protect resource values within wilderness, research natural areas, cultural sites and any other sensitive areas from fire suppression impacts.

Fire suppression costs have significantly increased on the Nez Perce Forest. This is constant with the national trend of escalating fire suppression costs.

Table 28: FY2003 & FY2004 Wildland Fire Comparison

	FY 2003	10-yr average (1994-2003)	20-yr average (1984-2003)	FY 2004	10-yr average (1995-2004)	20-yr average (1985-2004
Number Wildland fire starts	240	163	186	119	158	189
Acreage Wildland fire (suppression response only)	37,632	148 [1]	13,383	44.7	9,689	15,264
Acreage Wildland fire use only	7,072	6,736	3,149	1,108.7	4,887	3,361
Person caused fires	20	11	14	17	11.7	15.4

[1] 10-year average acreage of fires that had a suppression response included 3 years that burned less than 20 acres total (1997, 1995, 1993). This only occurred 1 other time in the past 50 years. The result is a 10-year average that is uncharacteristically low

A cost analysis, of the 2003 fire season, was completed to understand the cost/acre of managing large fires (> 100 acres) on the Clear/Nez Zone during the 2003 fire season (see Table 29). It was determined that managing fires with limited suppression actions or as Wildland Fire Use (WFU) saved over 25 million dollars in suppression costs, see Zone 2003 Annual Report addendum by Ken Castro. Values at risk must be weighed with the risk of firefighters and the public, as well as the availability to meet overall management objectives for the areas where the fires are occurring. Although the 2004 fire season was significantly slower than that experienced in 2003, cost savings were again realized as a high percentage of fires were again managed with limited suppression actions and a s Wildland Fire Use (WFU).

In FY 2003, the Clear/Nez Fire Zone provided extensive support to the Southwest, Rocky Mountains, and Pacific Northwest areas during the spring and summer seasons. The Zone also provided support in the form of crews and overhead to the space shuttle recover effort. In total the Zone and its partners mobilized 70 crews, 90 engines and filled approximately 450 overhead positions.

Table 29: 2003 Cost per Acre of Wildland Fire Management

Appropriate Management Response	Cost/Acre
Confine	$593/ac [2]
Control	$1021/ac
Wildland Fire Use	$25/ac

[2] In FY2003, confinement cost per acre on the zone was quite variable; some fires were managed for only $13.82/acre, while most were managed from $322/acre to $1538/acre.

In FY 2004, The Clear/Nez Fire Zone provided extensive support to Alaska, and to a lesser extent to the Southwest, Rocky Mountains, and Pacific Northwest areas during the spring and summer seasons. In total the Zone and its partner's mobilized 18 firefighting crews, including 6 Forest Service crews, 10 State of Idaho crews, and 2 Nez Perce Tribal Crews. Also, 18 engine and approximately 348 overhead positions were filled from the Zone.

Aviation

Two 800 gallon 802 Single Engine Air Tankers (Evergreen Flying Service, Rayville, LA) under contract to the Idaho Department of Lands were managed by and based at the Grangeville Air Tanker Base in 2003 for retardant delivery in west central Idaho. These aircraft delivered 86,885 gallons of retardant for fire operations at 14 fires on the Nez Perce National Forest. Two portable retardant plants were

established on the Clear/Nez Fire Zone, the Slims Complex Plant at Elk City Ranger District and the Beaver Lakes Complex on the Powell Ranger District.

The Regional Office designated the Grangeville Retardant Base as a Single Engine Air Tanker Base early in FY 2004. The cooperative agreement with Idaho Department of Land (IDL) to station their two contracted Single Engine Tankers (SEATS) at Grangeville was implemented again for the 2004 fire season. Two Air Tractor 802's, with an operational capacity of 700+ gallons each, operated out of the Grangeville from mid July thru mid September. The retardant base delivered 22,351 gallons of retardant in 2004, with 4,331 gallons to Clearwater NF, 6,407 gallons to Payette NF, and 11,613 gallons to Idaho Department of Lands. The Clearwater/Nez Perce Zone retardant use totaled 39,281 gallons of retardant during the 2004 fire season. No retardant was used on the Nez Perce Forest in 2004.

The Clear/Nez exclusive use helicopter contract was renewed with Hillcrest Aircraft Company for the 2003 and again for the 2004 fire season. Two Bell 206 L-3 Type 3 helicopters, with high performance kits were provided. Helicopter N861H was based at the Musselshell Work Center, while the second helicopter was based at Grangeville Air Center. The Zone Call-When-Needed Contract was also renewed with Hillcrest in FY 2003. A total of 29 different helicopters were utilized on the Zone in 2003, 11 Type 1, 12 Type 2 and 6 Type III. In FY 2004, a Type II high performance Bell 212 helicopter provided under a national exclusive use contract with ERA Helicopters from Reno NV was also based at Grangeville.

During the 2003 fire season, 446.4 Exclusive Use hours were flown on the Clear/Nez Zone. Additionally, the Exclusive Use helicopters flew 61.4 hours for neighboring forests, and in Region 4, for fire and project work. Of the total hours flown 286 hours were on the Nez Perce National Forest. The L3 and crew based at the Mussleshell were committed to WY and UT for a two-week fire assignment during July. They spent the remainder of their time on-Zone.

During the 2004 fire season, the three helicopters amassed 201 Exclusive-Use flight hours on the Clear/Nez Zone. Additionally, the Exclusive Use helicopters flew 169 flight hours for neighboring forests, the Alaska Fire Service and in Region 6, for fire and project work. The exclusive use helicopters transported 1,148 passengers, 153,517 pounds of cargo and delivered 105,503 gallons of water during the 2004 fire season.

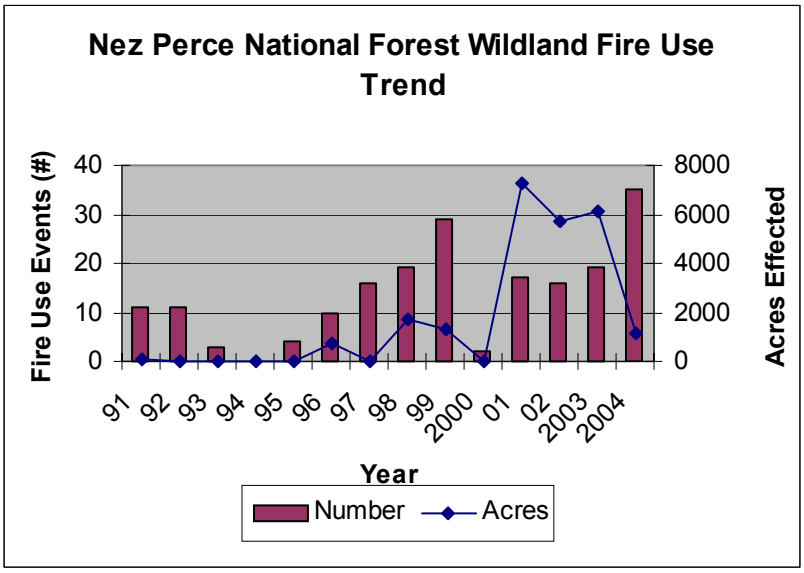
In FY 2004, the Fire Zone hosted the only exclusive use Air Tactical Group Supervisor platform and full time Air Attack in Region one in 2004. Commander Northwest supplied a turbo-charged Aero Commander aircraft under a 90-day commitment. Fire assignment flight hours on the Clearwater Forest equaled 14.25.

Grangeville employed 34 smoke jumpers for fire management activities in 2004. Significant support was provided to Alaska and Region 6. Grangeville made 108 fire jumps to 27 fires from Grangeville Air Center (GAC). All fires except two were caught in initial attack. Booster Crew activity was high this year. 13 boosters were sent from GAC to other Regions experiencing high fire activity between 5/13 and 8/22. Grangeville received two booster crews during our fire season. Leading Edge Aviation's contract Twin Otter flew 77 hours in 2004. Grangeville experienced three jump related injuries this past season.

Wildland Fire Use

The Clear/Nez Fire Zone manages naturally ignited wildland fires to accomplish specific pre-stated resource management objectives in predefined geographic areas outlined in fire management plans. Each fire use event meets strict prescription criteria prior to line officer approval; and a site specific Wildland Fire Implementation Plan is developed.

Figure 6: Nez Perce National Forest Wildland Fire Use Trend



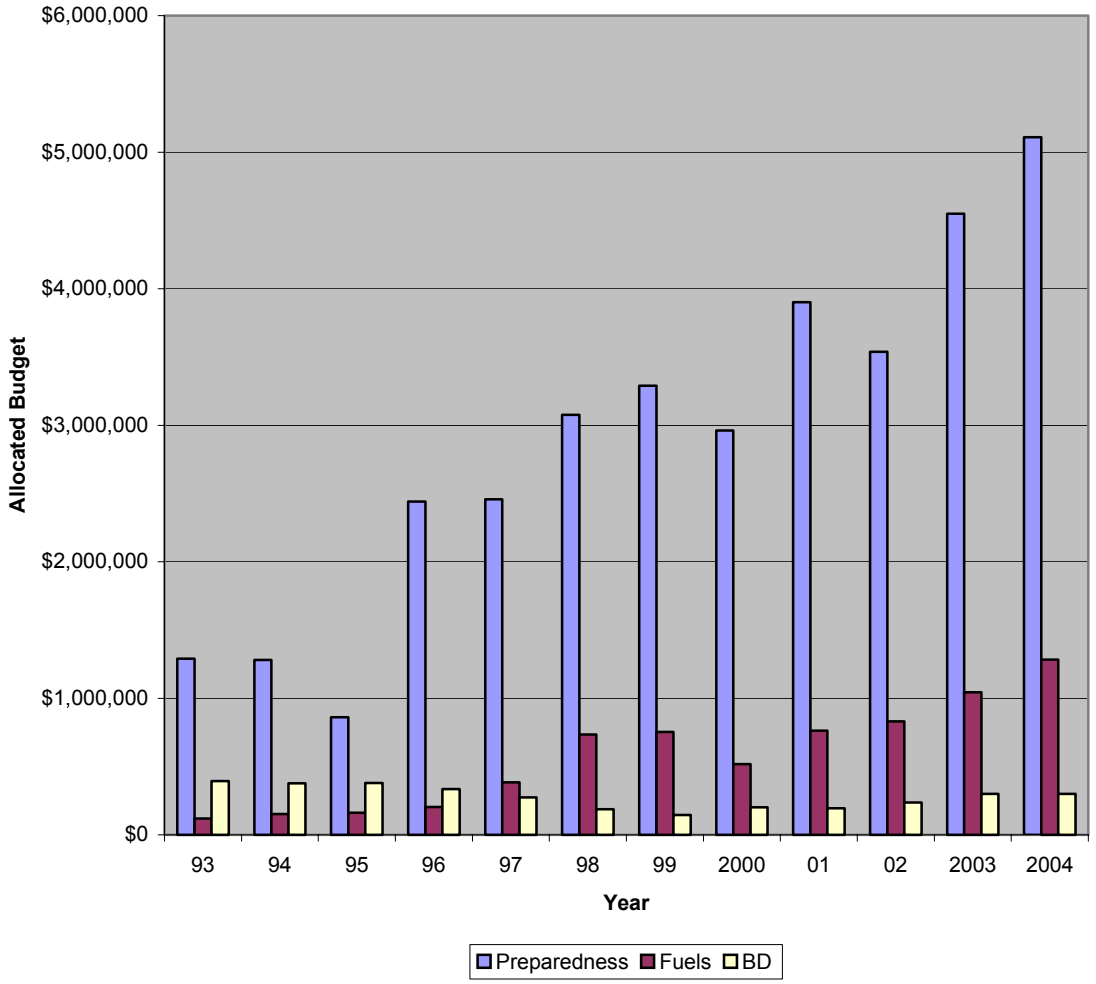
- This management option was selected for 21 fire starts in 2003 and 35 starts in 2004, the majority of which were within the Selway-Bitterroot Wilderness, except the Frank Church Wilderness Crofoot fire. These fires burned a total of 7,072 acres in 2003 and 1,108 acres in 2004.

- In FY 2003, many lightning ignitions did not meet wildland fire use prescription criteria due to high fire danger indexes in the Region and due to the National fire situation. However, resource shortages required fire managers to prioritize use of scarce resources and as a result many fires not specifically being managed for resource benefit were burning unchecked where risk to life and property were low. Significant resource benefit was realized on these fires as well.

Fuel Reduction

Brush disposal trust funds total allocation was $300,000, in both FY 2003 and FY 2004. The funds were used to treat 606 acres of timber harvest related fuels in fiscal year 2003 and 1,167 acres in FY 2004. (see Figure 7)

Figure 7: Nez Perce Forest Allocated Fire Budget



The total allocated Hazardous Fuel budget for the Nez Perce was $732,200 in FY 2003, and $1,284,000 in FY 2004. In FY 2003 the Forest treated 2,132 acres of natural fuel. This fell far short of the FY03 target of 9,687 acres. The Salmon River District treated 1,010 acres, Clearwater District accomplished 965 acres, Moose Creek District treated 5,679 acres, and the Red River District treated 141 acres. Due to the extended dry conditions through September the risk of igniting additional acres before the end of the fiscal year was too great, limiting the Forests opportunity to meet its target acreage. In FY 2004, the Hazardous Fuel budget for the Nez Perce was $1,284,000. The Forest accomplished 14,908 acres of "primary purpose" natural fuels treatments with these funds. One hundred-thirty-one of these acres were within the Wildland Urban Interface (WUI). Mechanical treatments (thinning and machine piling) totaled 2,691 acres while prescribed burning treatments totaled 12,217 acres. The Salmon River District treated 2,800 acres, Clearwater District accomplished 7,347 acres, Moose Creek District treated 7 acres, and the Red River District treated 4,707 acres.

Thinning, both commercial and precommercial, wildland fire use, timber harvest, and burning to reduce logging slash do contribute to a reduction in forest fuels and are often referred to as "secondary fuel treatments." These types of vegetative are a key component in restoring fire-adapted ecosystems that

complement the Hazardous Fuels (WFHF) program. The Nez Perce Forest accomplished 3,306 acres of these secondary fuels treatments, 33acres of which were in the WUI.

Air Quality

Prescribed burning was accomplished during the spring and fall burning periods in both FY 2003 and FY 2004. Smoke management from prescribed fires was managed within the guidelines of the North Idaho Airshed Group. Burn operations on the Forest were impacted on several occasions by smoke production limitations. No specific air quality monitoring was done within the Forest.

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Insects and Disease

1) What did we accomplish?

Insect and disease conditions on the Forest were monitored via aerial detection flights and field reconnaissance. This contributes to the historic conditions data set.

2) What outputs and/or work were planned that did not get accomplished?

All planned insect and disease associated work was accomplished.

3) What practices need to be changed based on monitoring results?

Monitoring results indicate the Forest is experiencing outbreaks of at least three insects that may require a shift in management priorities in order to protect and restore forest, wildlife, and aquatic resources. As this information is incorporated into watershed assessments, it will help identify specific needs.

4) What is the current resource condition and trend when compared to desired conditions?

Insects and diseases are an integral part of forest disturbance regimes and contribute to the makeup and structure of our forests. Current outbreak levels of Douglas-fir beetle and mountain pine beetle are above desired levels. Losses of whitebark pine to white pine blister rust and mountain pine beetle are far beyond desired conditions. Mortality of subalpine fir caused by the balsam wooly adelgid and the western balsam bark beetle are increasing and could become a larger concern in the future.

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INSECT AND DISEASE ACTIVITY
(Forest Plan Monitoring Item 7)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation*:* Significant increases in population or damage levels of insects or diseases.

Monitoring Results

Lodgepole Pine: The mountain pine beetle continued killing lodgepole pine over significant acreages in 2003 and 2004. This mountain pine beetle outbreak has been active in lodgepole pine over the past 8 years and has spread from concentrations in the vicinity of Elk City, to include many other lodgepole pine stands across the Forest. Additional mountain pine beetle mortality has been noted in around Tenmile Creek and Newsome Creek, and new in 2003 in the vicinity of Florence on the Slate Creek Ranger District. In 2004 mortality decreased somewhat in the older outbreak areas due to host depletion, while

increasing in the newer outbreak areas. The Nez Perce Forest still has the largest outbreak in Idaho where an estimated 160,000 acres of lodgepole pine stands are still infested.

Dwarf mistletoe is frequently present in lodgepole pine forests on the Nez Perce NF. Although the parasitic plants can slow growth and, sometimes, kill severely infected trees, it is a minor consideration compared to the current and potential mountain pine beetle impacts. The mountain pine beetle continues reducing Forest dwarf mistletoe populations because dwarf mistletoe plants only survive on live hosts.

Grand-fir: Grand fir mortality attributed to the fir engrave beetle remained high in 2003 and 2004 within and adjacent to the Nez Perce National Forest. Fir engraver populations often rise precipitously in response to drought conditions and are most commonly associated with root disease pockets. Root diseases, especially annosus root disease, are the most common cause of grand fir mortality on the Forest and are a constant and significant disturbance factor in grand fir forests. They influence the composition and structure of many most conifer forests on the Nez Perce Forest.

Hemlock looper defoliation in grand fir and spruce trees was not noted in 2003 and 2004. Ground surveillance in the Limber Luke area north of Elk City in the summer of 2003 and 2004 found little evidence of the defoliation witnessed in 2002. Trees, including seedling and saplings severely defoliated in 2002, had flushed and appeared to have suffered no long term damage.

Douglas-fir: Douglas-fir mortality rate on the Forest remains high. Most of this mortality, in trees of all ages, can be directly attributed to annosus or Armillaria root diseases. In addition to root disease, Douglas-fir bark beetles continue killing larger diameter Douglas-fir, often in association with root disease activity. Douglas-fir beetle mortality was most evident on the Moose Creek Ranger District, where root disease is especially severe in Douglas-fir, though scattered mortality was also observed in the southern portion of the Island unit and along the Salmon River Breaks. Douglas-fir beetle mortality seems to be declining forest wide from a 20 year high experienced in 2000. Notable decreases occurred on the Nez Perce National Forest in 2004.

Dwarf mistletoe continues to be a consideration in Douglas fir forests in some locations. Relatively dry sites with relic populations of large, old Douglas-fir on ridge tops are often heavily infected by this parasitic plant. Overall, 5-7% of the Nez Perce forest area has severe Douglas-fir dwarf mistletoe infestations.

Ponderosa Pine: Bark beetle mortality in Ponderosa pine from mountain pine beetle and western pine beetle were consistent with 2002 levels. Beetles preferentially target large diameter, old ponderosa pine, a unique Forest resource.

Subalpine Fir: Subalpine fir mortality, while still prevalent, decreased from 2002 levels. Most red trees were mapped near the Big Creek/Dixie Summit area just east of the Gospel Hump Wilderness and most of this mortality was attributed to the western balsam bark beetle. Aerial surveys over the past few years show declining subalpine fir mortality rates. Typically western balsam bark beetle infestations are found in association with root diseases, so mortality in subalpine fir is likely a result of both agents. Armillaria and annosus root diseases are common and often dominant factors in forest development in Forest subalpine fir types.

The balsam woolly adelgid, an exotic insect, is also impacting subalpine firs across the headwaters of American River and Newsome Creek, and on Coldwater Ridge. Balsam woolly adelgid infests both subalpine and grand fir, and may kill larger diameter subalpine fir in as few as 3 years. The impact of this

agent on the subalpine fir component in the Nez Perce Forest has not been quantified, and establishing permanent impact plots is recommended, to gather site specific data on local effects.

Engleman Spruce: Hemlock looper defoliation did not occur in 2003 or 2004. Engelmann Spruce, along with grand fir, were defoliated by the hemlock looper over 28,000 acres near Limber Luke in 2002. The spruce seemed to be most heavily defoliated, with some regeneration completely defoliated and the tops of may overstory trees completely stripped of foliage. Spruce defoliated in 2002 was fully flushed out during follow up site visits in summer of 2003. No long term impact is anticipated. No additional defoliation was evident in the 2004 aerial flight.

White Pine/ Whitebark Pine: Mountain pine beetle and white pine blister rust continue killing white pine and whitebark pine trees. Continued activity by this insect and pathogen are expected into the foreseeable future and will continue to reduce already low populations of these species.

Dogwood: The coastal disjunct population of Pacific dogwood in the Selway River drainage continues to decline. Mortality has been high and surviving plants are in poor condition. Suspected causal agents include anthracnose as well as other canker-causing fungi and encroaching tree cover resulting in excessive shading. Monitoring plots have been established and are checked periodically as funding permits. No change in the downward trend is evident.

Evaluation of Monitoring Results

Mortality in subalpine fir, affecting forest composition, structure, and density, could have long-term effects on lynx habitat.

Continued tree loss from root disease and bark beetle infestations may reduce canopy levels to the point that watersheds are affected. Dead trees concentrations are certainly a risk factor for wildfire ignition, especially over the next 10 years as dead trees fall to the ground. The Red River drainage in particular is at risk to fire ignitions and has the potential to cause additional damage in a watershed system already below standard.

Large, old ponderosa pines, a unique resource, are at risk from a combination of bark beetles and wildfire with increased fuel loads.

Whitebark pine forests are continuing to disappear due to the combined effects of wildfire, blister rust, mountain pine beetle, and a lack of regeneration opportunities.

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

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FACILITIES

1) What did we accomplish?

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

- **Buildings and Administrative Sites**

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

  - Due to a program of regular annual inspections and forest-wide prioritization of maintenance projects, all forest buildings, water systems, and waste water systems that are in use meet basic structural and public health and safety standards. When new research reveals potential hazards to employees and forest visitors, testing and monitoring is done and mitigation or removal is completed to prevent human exposure to hazardous materials such as lead, radon, and asbestos in buildings, air, and water.

  - The forest has three "public community" water systems that serve the Fenn, Red River, and Slate Creek Ranger Stations. Bacteriological monitoring of all operational water systems is completed monthly. If any systems fail quality requirements, the problems are corrected or the system closed to use.

  - Sanitary surveys are conducted on schedule to ensure water systems are capable of providing quality water.

  - The consumer confidence report is published and distributed annually in accord with State law to disclose water quality testing results and issues.

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

  - Drinking water was monitored monthly for bacteriological contamination at all 13 operating potable water systems managed directly by the Forest Service. Drinking water chemical testing was performed. Nitrate tests were conducted in all campgrounds except Castle Creek Campground. Safe drinking water was provided at all systems where potable water is available.

  - Wastewater discharges were monitored at all three sewage treatment plants.

- 2003 construction work included the Moose Creek District visitor information/office building and water at O'hara, Johnson Bar and Spring Bar Campgrounds.

- 2004 construction work included the installation of a Travel Trailer Sanitary Station at Cedar Flats and communications site work at High Camp, Iron Mountain Remote, the O'Hara Radio Site, and Slate Point.

- Routine maintenance assured all used buildings met basic structural and public health standards.

- Radon and asbestos monitoring continued in 2003. There is still some friable asbestos in a few buildings, but radon and asbestos are not known current health hazards at any Forest Service residence.

- Micro particulate Analysis was completed as required by the Idaho Department of Environmental Quality to ensure that our wells were not under the influence of surface water. Micro particulate Analysis was completed on waters systems that serve the Fenn, Red River, and Slate Creek Ranger Stations.

- A total of eight potential Shallow Injection Wells were inventoried and reported to the Idaho Department of Water Resources as required by the Environmental Protection Agency.

- Sewer Sludge Disposal Permit applications were completed for Sewage Sludge Disposal Treatment at three sewage treatment sites as requested by the Environmental Protection Agency. Sewer Sludge Disposal Permit applications were completed at the sewage treatment plants that serve the Fenn, Red River, and Slate Creek Ranger Districts.

- Sanitary Surveys and Building Surveys were completed at 100% for the five year Infra reporting cycle.

- Water distribution lines for the Four-plex at the Red River Ranger Station were renovated to replace leaking water distribution lines on the exterior of the Four-plex.

- Pump replacement for well #2 was completed at the Slate Creek Ranger Station.

- Painted residences and bunkhouses at Red River and Elk City (2003).

- Constructed a new accessible district office facility at the Fenn Ranger station.

- Re-roofed the fire office and ranger's garage at Fenn Ranger station (2004).

- Completed Forest Facilities master plan (2004).

- **Road system**

  - Passenger car roads (level 3 thru 5) receiving maintenance = 730 miles (level 3 thru 5) (2003)

  - Passenger car roads (level 3 thru 5) receiving maintenance = 735 miles (2004)

- High clearance roads (level 1 and 2) receiving maintenance = 250 miles (2003)
- High clearance roads (level 1 and 2) receiving maintenance = 250 miles (2004)
- Aggregate placement and road drainage improvements on 7 miles of the seven devils road (road #517) in partnership with RAC funding (2003).
- Rehabilitation of 12 miles of the Indian Hill road (road #290) following Slim's fire impacts (2003)
- Aggregate placement and drainage improvements on over 9 miles of roads #463 and #2028 in the Skookumchuck drainage. (2003)
- Decommissioned 8.6 miles of road (2003)
- Decommissioned 12 miles of road (2004).
- Aggregate placement and drainage improvements on the Selway river road (#223) (ongoing).
- Replaced East Fork Crooked River Bridge, road #233 (2004)
- Constructed Fourth of July Creek Bridge, road #222C (2004)
- Replaced existing culvert at Corral Creek on Hungry Ridge road #309 with stream simulation structure to provide for improved aquatic passage in cooperation with the Nez Perce Tribe (2004).
- Performed roads program deferred maintenance surveys and reporting as scheduled.
- Performed bridge inspections and reporting as scheduled.

Table 30: Road Activity levels- Nez Perce National Forest

Year	NFSR Reconstruction (miles) *	NFSR Construction (miles)	Decommissioning (miles)
Forest Plan	30	53	N/A
1988	53	53	
1989	152	37	
1990	91	49	
1991	144	84	
1992	101	30	2
1993	77	30	2
1994	5	14	0
1995	2	9	5
1996	4	5	3
1997		0	10
1998	21	0	18
1999	27.5	0	22.3
2000	23.1	0	19.9

Year	NFSR Reconstruction (miles) *	NFSR Construction (miles)	Decommissioning (miles)
2001	6.6	0	28
2002	52.3	0	2.3
2003	29	0	8.6
2004	34.7	0	12

*Reconstruction definition changed as result of 2000 roads rule. Mileages reported for 2000 and forward are deferred maintenance and reconstruction combined.

- **Property Boundaries**
  - There are approximately 450 miles of boundary between forest land and private landowners. As of 2003 370 miles had been posted. This increased to 372 miles as of 2004 leaving 78 miles remaining to be posted.
  - In addition to the property lines, there are an estimated 350 miles of wilderness boundary on the forest. As of 2004 there are 12.5 miles of wilderness boundary posted.
- **Right-of-Ways**
  - Although no new roads or trails are planned across private property, the Forest has a substantial backlog of roads and trails, which have been managed under prescriptive/appropriated rights. The Forest continues to work on clarifying these situations.

2) What outputs and/or work were planned that did not get accomplished?

- Deferred maintenance needs in the facilities program continues to substantively exceed available funding. As work is identified it is regularly evaluated and prioritized against available funding.
- Funding levels precluded fully maintaining the entire transportation system in both 2003 and 2004. Maintenance of aggregate surfacing, and some bridges continues to be deferred. Some roads have been closed or restricted due to weather damage and will remain so until sufficient funds can be programmed to repair. Maintenance needs continue to be evaluated and prioritized on both an annual basis and as weather events dictate.

3) What practices need to be changed based on monitoring results?

- Buildings and administrative sites do not have Forest Plan monitoring requirements. Facilities management utilizes existing laws and policy to assess and manage these assets. When problems are discovered during inspections or monitoring they are corrected as funding allows.
- The efficiency of operations in the roads program will continue to be pursued. Efforts to work with partners and to perform work through most efficient means will continue to be pursued.

4) What is the current condition and trend of the resource when compared to the desired condition?

- Currently, the occupied Nez Perce National Forest buildings, water systems, wastewater systems, and administrative sites are in acceptable condition, with few exceptions. However, as buildings and systems age, they require more upkeep each year. Since maintenance funding has not increased with inflation, it becomes a greater challenge each year to maintain structural, health, and safety standards. The Forest Service is addressing this issue nationally and it is hoped that maintenance funding will increase in the future. The Forest is evaluating needs and costs on an ongoing basis to assure that we are not maintaining unneeded facilities. Opportunities for ongoing cost savings are continually pursued.

- Incremental deterioration of the road system can be expected to continue. The roads program will continue to prioritize available funds toward higher use roads and safety issues. The roads program will also continue to work with available partners to obtain additional funding and efficiencies in the management and maintenance of the system.

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MITIGATION MEASURES USED FOR AND IMPACTS OF TRANSPORTATION FACILITIES ON RESOURCES
(Forest Plan Monitoring Item 2K)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 5 years – 2004

Variability that 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.

Transportation System (Roads and Trails)

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

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

(a) Transportation Planning, which is a detailed office effort using maps, photos, historical data, GIS data, land hazard information, and geotechnical information to identify and avoid possible stability problems and mass hazard areas and to hold road mileage to the lowest possible.

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

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

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

(e) Maintenance, which assures that the facility continues to function and provide the level of mitigation originally intended.

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

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

(g) Designed and controlled ditches, cross drain spacing, and culvert discharge. These prevent water from running long distances over exposed ground. Some examples are; dewatered (dry) culvert installations and special drainage such as rock filter blankets and rock buttresses.

(h) Stabilization of road surface and ditch lines with competent rock (rock that does not rapidly disintegrate). The effectiveness of this measure in reducing surface erosion from these sources is dramatic, often over 90 percent.

(i) Slash Filter Windrows. This measure consists of placing logging slash at the base of fill slopes and below culverts where fish passage is not required. It is very effective treatment; sediment leaving fill slopes is reduced by 80 to 90 percent.

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

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

Additional mitigation, in the form of project design in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service through the Level I consultation process, is now an integral part of every project. This process has been established in response to requirements of the Endangered Species Act. As a result of this process, each project receives joint evaluation and assessment of potential impacts and site specific mitigations are selected to address potential for resource impacts.

Monitoring Results:

Evaluation of monitoring results are often developed through coordinated efforts with potentially affected resources. Some general understanding can be provided in this section however.

Intermountain research has undertaken a study of sedimentation effects of road decommissioning on live water crossings. They have acquired some measurement of short term sedimentation response from this activity as part of the Horse creek road obliteration project. Study results are pending.

Stream crossing upgrades through stream simulation designs have potential to produce some sedimentation impacts. Aquatic resource managers have undertaken monitoring measurements to assess magnitude and extents of these impacts.

Road closure gates often get damaged and breaches of these devices can sometimes be identified. Quantification of these events has not been performed but it is evident that there is a level of violation of access restrictions occurring. It is also evident however, that these devices preclude the majority of highway vehicle traffic from traveling these roads during restricted periods.

Implementation Monitoring:

General:

Engineering projects for FY 2003 and FY 2004 included specific mitigation measures to reduce the impact of facilities on resources. The following mitigation measures were used (not all were used on every project).

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

Road Maintenance:

The level of maintenance varies by road. Level 1 maintenance is applicable to roads with no motorized traffic and addresses priority items to prevent resource damage. Level 2 maintenance is applicable to roads maintained for high clearance vehicles. Maintenance levels 3 through 5 are performed on the open road system maintained to provide for passenger car travel.

Road maintenance activities are carried out in accordance with the requirements of the programmatic agreements established under the biological opinions on the Forest Plan.

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ADEQUACY OF TRANSPORTATION FACILITIES TO MEET RESOURCE OBJECTIVE AND USER NEEDS
(Forest Plan Monitoring Item 2L)

Measurement Frequency: Continuous

Reporting Period: 5 years - 2004

Variability that would initiate further evaluation: If public opinion is significantly against the Nez Perce National Forest access management or the program shows serious negative resource impacts.

Discussion:
The monitoring of this item is continuous. Due to the nature of transportation systems, their impacts upon management and use of the forest, monitoring is both important and complex. Consequently, monitoring information comes from a variety of sources: facility maintenance records, environmental assessment documents, public letters and requests, and biological evaluations.

Monitoring:

Traffic Surveillance:

In 1984, the Nez Perce engineering section instituted a traffic surveillance program, using inductive loop equipment. This program was conducted up through 1992.
The objective of having a traffic surveillance program is to provide managers with data on use of representative forest roads. This information can be utilized in:

(1) justification for commitment of capital investment funds for reconstruction of existing system roads;
(2) preparation of Recreation Improvement Management (RIM) reports;
(3) access management planning;
(4) identifying high use/high maintenance roads, and allocation of road maintenance dollars to take care of them; and
(5) design criteria, i.e. (ADT – average daily traffic counts, turnout spacing, surface types, lane requirements, and signing).

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

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

General Access:

Incremental deterioration in elements of the road system continue to accrue. Among these are condition of aggregate surfacing, ability to adequately maintain bridges, signing, and ability to effect repairs. Portions of the Falls Point road , #443 remain restricted due to shoulder slide and the portion of the

Crooked river road, #233 from Orogrande to Wildhorse Saddle and beyond is becoming impossible to maintain to objective.

On a positive note however, the road maintenance program has made substantive progress in addressing accumulated backlog of roadway brushing needs along the level 3 thru 5 (passenger car) system. Incremental work on the Selway Road, #233 to address chronic drainage and surfacing needs is also ongoing.

Additionally, the Forest has been able to build and maintain valued partnerships with public road entities including County and Highway Districts, Nez Perce Tribe, and Resource Advisory Committee (RAC) to address some of the needs that would otherwise not be reached.

Access Management:

The road and trail access guide (an itemized listing of access prescriptions for National Forest System Roads and some trails) was last updated and published in 2003.

Table 31: Nez Perce Forest NFSR Access Prescriptions (2004)

Open Roads (miles)	Roads with yearlong restrictions (miles)	Roads with Seasonal Restrictions (miles)
987	2128	725

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MINERALS

1) What did we accomplish?

Forest personnel were able to perform basic administration, minimize unnecessary surface disturbances, and inspect unauthorized mining operations.

During FY 2003:

- 17 non-bonded operations were processed and approved.
- 4 bonded operations were processed and approved.
- There are 23 bonded mining operations on the Forest.
- 37 operations were administered to standard.

During FY 2004:

- 14 non-bonded operations were processed and approved.
- 1 bonded operation was processed and approved.
- There are 21 bonded mining operations on the Forest.
- 36 operations were administered to standard.

2) What outputs and/or work were planned that did not get accomplished?

Red River RD: EMC Placer Environmental Assessment (EA) and This Is It Placer EA were both scheduled to be completed in FY 2004.

- The EMC Placer project was divided into exploration and development phases. Analysis of the exploration phase was completed in FY 2004. Analysis Development phase is scheduled to be completed in FY 2005.
- This Is It Placer EA was put on hold pending response of claimant to questions concerning reasonableness of his proposal.

3) What practices need to be changed based on monitoring results?

More efficient methods need to be developed to process and administer mining operations in anticipation of continuing shrinkage of the workforce, Forest priority projects and increase in complexity of issues. The Forest need to more closely coordinate with other federal and state agencies and the Nez Perce Tribe.

4) What is the current resource condition and trend compared to desired conditions?

The current trend is toward the desired conditions. The Forest was able to keep up with basic administration of mining activities. A shrinking workforce, Forest priority projects and the increasing complexity of issues (such as consultation under the Endangered Species Act) combined with rights under the 1872 mining law, contribute to difficulties in meeting regulation timeframes for processing new plans, adequately inspecting ongoing operations, and assuring that bonds are revised or released on a regular basis.

ADEQUACY OF MINING OPERATING PLANS AND RECLAMATION BONDS
(Forest Plan Monitoring Item 2M)

Frequency of Measurement: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: Operating plans that need to be updated, modified; bonds that need to be increased, decreased, or return; or case files that can be closed out.

Monitoring Results:

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

There were 23 active Plans of Operation in FY 2003 and 21 in FY 2004, as displayed in Table 32 below.

Table 32: Mining summary on the Nez Perce National Forest

Ranger District	Active Plans of Operation	Plans Needing Modification	Bonds Needing Revision	Bonds Needing Release
Salmon River	11	0	0	0
Clearwater	0	0	0	0
Red River	10	1	1	0
Moose Creek	0	0	0	0
Total	**21**	**1**	**1**	**0**

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

In FY 2003 and FY2004 the Forest continued to monitor and administer recreational suction dredging to prevent conflicts with Endangered Species Act listed fish species. Administration of existing plans of operations was a high priority during these years.

Table 33 compares the above figures with those from previous years. Zero percent in each category would indicate the lowest degree of variation from Forest Plan direction.

Table 33: Comparison of mining operations by year

YEAR	PLANS NEEDING MODIFICATION (% OF TOTAL PLANS)	BONDS NEEDING REVISION (% OF TOTAL PLANS)	BONDS NEEDING RELEASE (% OF TOTAL PLANS)
1988	13%	11%	Unknown
1989	6%	15%	7%
1990	9%	9%	8%
1991	7%	15%	3.5%
1992	4%	6%	0%
1993	20%	54%	23%
1994	6%	121%	50%
1995	1%	64%	24%
1996	<1%	39%	13%
1997	15%	37%	4%
1998	44%	44%	0%
1999	7%	6%	0%
2000	1%	0%	0%
2001	1%	0%	0%
2002	<1%	0%	0%
2003	<1%	0%	2%
2004	5%	5%	0%

There are still some instances of unnecessary disturbance to surface resources due to unauthorized mining operations. In FY 2003, and FY 2004 a reduction in interest by large mining companies continued to decline, but interest from recreational miners continued.]

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ECONOMICS

COST OF IMPLEMENTING RESOURCE MANAGEMENT PRESCRIPTIONS

(Forest Plan Monitoring Item 3)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: Changes in appropriations and expenditures to the degree that accomplishment of the Forest Plan's long-term goals and objectives are affected will necessitate a Forest Plan amendment.

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

Monitoring Results: Table 1 displays targets and accomplishments for FY 2003, and 2004. Table 2 displays budget allocations and actual expenditures for fiscal years 2001-2004. Table 3 displays funding allocations for FY 2003, FY 2004 and FY 2005. Dollars have been adjusted to constant FY 2004 values.

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

Table 34: Nez Perce Forest Implementation Funding FY 1988-2004 (millions of dollars)

Fiscal Year	Expenditures	Planned
1988	17.9	
1989	19.7	
1990	20.7	
1991	20.5	
1992	18.6	
1993	21.1	
1994	22.0	
1995	25.1	
1996	20.2	
1997	17.2	
1998	18.5	
1999	18.0	
2000	16.5	
2001	19.9	
2002	20.7	
2003	21.4	
2004	21.3	
2005		11.7

Table 34 displays funding levels expended by the Forest over the past 16 years and the projected funding level for FY 2005. Dollars for all years have been adjusted to 2004 dollars. The effects of this funding level can be seen in the sections of this report describing individual resource areas.

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FOREST RESOURCE DERIVED REVENUES
(Forest Plan Monitoring Item 3A)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: 10 years

Variability that would initiate further evaluation: Any change in resource-derived revenues altering the implementation of Forest Plan long-term goals and objectives will necessitate a Forest Plan amendment.

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

Monitoring Results

Timber Revenues: The differences between projected Forest Plan timber revenues and actual timber revenues in fiscal years 1988-1993, as displayed in Table 35, were due to two factors. First, the Forest did not experience stumpage values as high as predicted in the Forest Plan. Second, timber harvest acres in fiscal years 1988-1993 were considerably lower than the predicted average annual harvest displayed in the Forest Plan. In addition, the revenue decrease from fiscal years 1990-1991 was largely a result of the use of different accounting methods. In particular, established purchaser credits for roads were used in FY 1990, while charged purchaser credits for roads were used in FY 1991.

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

The revenue decrease from FY 1994 to FY 2003 was due to fewer acres being harvested. The revenue increase in FY 1998, an exception during this period, was due to the extremely high value of the timber in a single sale. FY 2004 had an unusually high quantity of harvest, which resulted in higher than normal revenues.

Before 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 discusses this analysis. The analysis illustrated that while there would be significant changes in revenues, there would be little change in the programmatic allocation of the Forest Plan.

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

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

In FY 2003, grazing fees were $1.35 per head month for cattle and horses, and $0.27 per head month for sheep. In FY 2004 they were $1.43 per head month for cattle and horses, and $0.29 per head month for sheep. In FY 2003, 17,500 cattle and horse head months and 6,478 sheep head months were billed and in FY 2004, 17,956 cattle and horse head months and 4,511 sheep head months were billed.

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

Table 35: Nez Perce Forest Timber and Range Revenues (figures converted to 2004 dollars)

Fiscal Year	Timber	Range
Forest Plan Projection	17,822,084	58,000
1988	6,321,472	47,861
1989	9,836,425	51,583
1990	8,915,839	54,382
1991	5,799,458	46,680
1992	9,674,498	45,570
1993	10,535,879	45,688
1994	18,552,376	48,869
1995	6,181,507	38,365
1996	6,874,758	29,960
1997	3,101,799	30,578
1998	6,241,394	28,562
1999	2,744,557	27,339
2000	3,179,693	28,111
2001	2,620,028	37,453
2002	1,840,426	28,224
2003	1,043,419	25,374
2004	5,256,136	28,543

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EFFECTS TO OTHERS

Public Involvement

1) What did we accomplish?

- **GENERAL**

  - The Nez Perce National Forest spent the majority of the past two years involved in the Red River Watershed and "Save Elk City" issues – forest health (specifically mountain pine beetle outbreaks resulting in dead and dying lodgepole pine), and possible local mill closures. This year also included another active fire season.

  - There were numerous public involvement efforts related to other specific projects. Techniques ranged from media ads to traditional scoping letters, public information meetings and public comment forums. There were project-related displays, field trips, open houses and news releases.

- **SAVE ELK CITY ISSUES**

  - **Meetings, Panels and Presentations**

  - The Forest and Idaho Women in Timber/Save Elk City groups coordinated to hold a "Save Elk City" forum on February 24, 2003. Panel members were John Bennett (mill manager), Bruce Bernhardt (Forest Supervisor), Greg Yuncevich (BLM) and Bill Mulligan (mill owner). Topics addressed were: Bennett Mill Closure, Fire Danger in the Red River Drainage and Vegetation Management Practices on National Forest Lands. An estimated 200 people attended the meeting.

  - The Forest prepared for and attended the May 10th Forest Health Audit meeting with Senator Craig in Grangeville. The objective of this meeting was to review and determine how the Forest and surrounding communities have reached their present situation of forest health conditions and economics. An estimated 500 people attended the meeting.

  - A collaborative public involvement plan meeting was held in the Supervisor's Office on June 26, 2003. The purpose was to identify the role of Senator Craig's office and the Nez Perce Forest and to discuss expectations. The objective was to establish relationships by setting up opportunities for congressional delegation and the Forest Service to get involved in bringing people together and participating in problem solving. Goal is to encourage identified key players to take a leadership role in the collaborative process.

- **RED RIVER WATERSHED**

  - **Field Trips**

  - Public Affairs coordinated a field trip with the project leader for cooperating agencies and stakeholders to American and Crooked River Project areas on August 28, 2004. The purpose of this project is to reduce fuels, sustain fire tolerant tree species and contribute to the economic and social well being of people within the surrounding area.

- **Red River Watershed Project Updates**

- A "Current Status of Project Work in Red River" is updated monthly and distributed to county commissioners, congressional representatives, local stakeholders, the Nez Perce Tribe, BLM, and Idaho Department of Fish & Game.

- **Forest Health Issues Website**

- In June 2003, the Forest added the "Response to Six Action Items from the May 10th Forest Health Meeting" to the external forest website and linked it with Senator Craig's website. The website is updated monthly.

- **PLANNING**

  - **North Central Idaho Resource Advisory Committee (RAC)**

  - In FY 2003, five meetings were held at various locations throughout the year, as well as a fieldtrip to Red River Ranger District on July 17, 2003. Following each of these meetings were public forums where members of the public were invited to comment. Congressional representatives are present at each RAC meeting.

  - In FY 2004, six meetings were held at various locations throughout the year, as well as a fieldtrip to the Salmon River Ranger District on July 22, 2004. Following each of these meetings were public forums where members of the public were invited to comment. Congressional representatives are present at each RAC meeting.

  - Several projects were proposed with five projects completed in FY 2003, and seven projects either newly initiated or underway. The completed projects were: Red River Restoration (NEPA/EAWS), Idaho County Weed Control, Palouse Weed Control, Deer Creek Highway District Weed Control, and Seven Devils Road Rehabilitation. In FY 2004 seven projects were completed and ten projects were newly initiated or underway. The completed projects were: Rapid River Trail Head NEPA, Idaho County Weed Control, Deer Creek Highway District Weed Control, Adams Ranger House Restoration (Phase 1), Morrison Ridge Timber Project, Elk City Defensible Space, and Meadow Face Culvert Replacement.

  - **Schedule of Proposed Actions (SOPA) formerly the Quarterly NEPA Report**

  - We continued to publish and improve the Quarterly Schedule of Proposed Actions. This publication, which is mailed four times a year to nearly 350 interested individuals, includes information about proposed projects. The current and previous quarterly report can be accessed electronically at our homepage at www.fs.fed.us/r1/nezperce. FY 2004 saw the implementation of a web based tracking of all US Forest Service Projects. This system is called the Planning, Appeals and Litigation System (PALS). A link from the Nez Perce website above will allow access to the most recent copy of the SOPA via the internet.

- **INFORMATION AND EDUCATION**

  - There are many forest events and programs held throughout the year that stimulate public involvement. The events the Forest participated in included: Wildflower Week, Archaeology Month, Border Days Parade in Grangeville, Nez Perce County Fair in Lewiston, Idaho County Fair in Cottonwood, Bighorn Sportsman Show in Spokane and Horse Council in Boise**.**

  - The events or programs the Forest hosted included: Fishing Derbies at Clearwater, Red River and Moose Creek Districts, 7th Grade Field Trip, 5th & 6th Grade Fish Creek Camp, Water Awareness Week, and Reach A Teacher – Touch the World.

  - The highly successful (Passport in Time) PIT Program continues to provide opportunities for volunteers to assist professional archaeologists and historians on significant heritage resource projects.

- **FIRE INFORMATION**

  - The Clear/Nez Fire Zone experienced an above-average fire season, lasting roughly from July through September in FY 2003 and a below-average fire season in FY 2004. The Fire information organization had information officers juggling many tasks with assistance from ten fire management incident teams. This was a new experience for the Zone. A Zone Command Information Organization strategy is drafted and ready for use in case the need for that type of organization arises in the future.

  - The Clear/Nez Fire Zone has developed a trend of excellent cooperation between fire protection agencies, the public and private companies. The efforts of this group, including rapid reporting, quick suppression, thorough mop-up, and great logistical support, undoubtedly limited the acres of private and public lands burned and in several cases saved structures from burning.

2) What outputs and/or work were planned that did not get accomplished?

- All targets were met.

3) What practices need to be changed based on monitoring results?

- None.

4) What is the current resource condition and trend compared to the desired condition?

- The desire for public involvement is to include the public more in the planning process. This could be accomplished by developing public involvement plans for projects and by doing more collaborative project development. This approach ensures all interests are represented as we plan and/or implement high priority projects outlined in our annual Program of Work.

EFFECTS OF NATIONAL FOREST MANAGEMENT ON LANDS, RESOURCES, AND COMMUNITIES ADJACENT TO THE FOREST
(Forest Plan Monitoring Item (8)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation: Unacceptable effects determined by the Forest Interdisciplinary Team.

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

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

In Fiscal year 2003 Nez Perce National Forest management effected adjacent communities and agencies. The Nez Perce made payments to Idaho County from timber sales, grazing fees, and other income totaled $2,522,656. Payments to Idaho County from all national forests were $4,038,450; which includes the Bitterroot Forest ($526,656), Wallowa-Whitman Forest ($2,014), and Clearwater Forest ($987,402). In fiscal year 2004 Nez Perce Forest total payments to Idaho County were $2,555,450. Payments to Idaho County from all national forests were $4,090,948; which includes the Bitterroot Forest ($533,220), Wallowa-Whitman Forest ($2,040), and Clearwater Forest ($1,000,238). Table 36 displays Nez Perce Forest payments made to Idaho County since 1988.

Primary lumber production facilities in the local area (Idaho, Lewis, and Nez Perce counties) depend upon national forest logs. Viable sawmills maintain a two to three year supply of raw material under contract at all times. Table 37 shows the Nez Perce Forest uncut volume remaining under contract compared to the volume sold and volume harvested each year since 1987. Obviously, the supply of raw material from the Forest has declined since 1991. The effect likely could be added dependence on other Bureau of Land Management, State of Idaho, Nez Perce Tribal, or private timberlands for raw materials.

Total FY 2003 expenditures were $18,245,764 with $16,691,638 coming from FY 2003 allotments and the remainder coming from prior year funds. Expenditures included funds based on annual appropriations to the Nez Perce Forest by Congress, trust fund limitations, State and Private funding, emergency (flood, disaster, wildfire, and federal highway) allocations, and reimbursed funds. Beside salaries, rent, and other operational expenses, revenues were distributed to local economies through formal contracts.

Total FY 2004 expenditures were $18,506,353 with $15,676,627 coming from FY 2004 allotments and the remainder coming from prior year funds. Expenditures included funds based on annual appropriations to the Nez Perce Forest by Congress, trust fund limitations, State and Private funding, emergency (flood,

disaster, wildfire, and federal highway) allocations, and reimbursed funds. Beside salaries, rent, and other operational expenses, revenues were distributed to local economies through formal contracts.

Table 36: Payments (all receipts) made to Idaho County from the Nez Perce Forest (1988-2004)

Fiscal Year	Nominal Dollars	Constant 2004 Dollars
1988	$ 995,846	$ 1,419,698
1989	$ 1,243,278	$ 1,706,827
1990	$ 1,276,546	$ 1,688,957
1991	$ 1,303,797	$ 1,660,372
1992	$ 2,042,981	$ 2,535,354
1993	$ 2,197,978	$ 2,664,109
1994	$ 3,872,891	$ 4,594,921
1995	$ 1,217,808	$ 1,414,193
1996	$ 1,576,746	$ 1,795,125
1997	$ 714,852	$ 798,292
1998	$ 1,461,044	$ 1,608,858
1999	$ 666,237	$ 723,977
2000	$ 775,556	$ 826,829
2001	$ 2,473,396	$ 2,574,005
2002	$ 2,492,743	$ 2,561,361
2003	$ 2,522,656	$ 2,559,526
2004	$ 2,555,450	$ 2,555,450

Table 37: Remaining Volume Under Contract; Volume Harvested, and Chargeable Volume Sold

Fiscal Year	Timber Volume Harvested (MMBF)	Timber Volume Sold (MMBF)	Volume Under Contract (MMBF)
1987	89.1	92.6	235.9
1988	72.9	108.5	290.0
1989	99.5	77.6	243.6
1990	93.4	83.2	220.0
1991	72.8	102.6	255.0
1992	81.4	15.6	189.8
1993	69.2	42.4	162.1
1994	89.9	13.0	75.2
1995	38.8	13.9	60.7
1996	38.3	28.1	54.1
1997	19.4	21.6	63.3
1998	29.8	22.4	55.9
1999	14.7	13.8	64.9
2000	16.0	2.3	54.9
2001	18.9	10.2	42.8
2002	13.5	20.4	52.9
2003	14.1	15.9	41.8
2004	34.5	7.4	27.1

The cooperative effort called the Clearwater Basin Elk Habitat Initiative has continued to pool USFS resources and involvement by state, federal, and private entities to help improve elk management through habitat manipulation in a cooperative effort to restore local elk populations.

Many Nez Perce Forest rivers and streams flow onto adjacent ownerships. Forest watershed management activities may affect water quantity and quality off the Forest.

The Future of the Secure Rural Schools and Community Self-Determination Act of 2000 (Public Law 106-393) and the North Central Idaho Resource Advisory Committee:

Public Law 106-393 (sometimes called "Payments to the States") ended rural communities' historic dependence on timber sale receipts to finance school and road construction. The Act gave counties the option of continuing to receive payments under the 25 Percent Fund Act or electing to receive their share of the average of the three highest 25 percent payments made to the state during the period of fiscal year 1986 through fiscal year 1999 (the full payment amount).

Idaho County elected to receive the full payment amount (average of the three highest 25 percent payments). Because the county was slated to receive more than $100,000 between 15-20 percent of the funds received were to be set aside and used for forest restoration, maintenance, or stewardship projects under Title II of the Act, county projects under Title III, or both.

The Act called for the Secretary of Agriculture to appoint Resource Advisory Committees to provide the Forest Service recommendations on funds allocation under Title II of the Act for national forest projects. The North Central Idaho Resource Advisory Committee (NCIRAC) covers five counties: Idaho, Clearwater, Latah, Nez Perce, and Lewis. It includes most of the Nez Perce and Clearwater National Forests. The Committee consists of 15 members and 3 replacement members, appointed for a 3-year term. The committee had 3 types or groups, with five members each:

- Industry and labor interests,
- Environmental, dispersed recreation, and archeological interests, or
- Elected officials, Tribal officials, school officials, and citizens at large.

The NCIRAC received over $730,669 in FY 2003 and $ 752,934 in FY 2004. Over $525,000 was allocated in FY 2003 and $822,000 in FY 2004 for projects on national forest lands under Title II of the Act.

Evaluation of Monitoring Results: Decreases in the timber quantity offered and sold is the most obvious effect of present Forest management on adjacent communities and agencies.

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EFFECTS OF OTHER GOVERNMENT AGENCIES' ACTIVITIES ON THE NATIONAL FOREST
(Forest Plan Monitoring Item 9)

Measurement Frequency: Annually (October 1, 2002 – September 30, 2003)
Annually (October 1, 2003 – September 30, 2004)

Reporting Period: Annually

Variability that would initiate further evaluation*:* Unacceptable effects determined by the Forest Interdisciplinary Team.

Monitoring Results

- **Bonneville Power Administration (BPA)**

  The Forest continued work with BPA funds, along with several agencies and landowners, to improve fish habitat, stream channel stability, and riparian conditions. Projects include channel restoration along several miles of Red River located on State and private lands, continued restoration with the Nez Perce Tribe in McComas Meadows, and sediment trap maintenance below Haysfork glory hole.

- **Bureau of Land Management (BLM)**

  The BLM and Forest were involved in cooperative cadastral surveys. There is an annual coordination meeting. Activities coordinated include timber, range, mining, recreation, and water monitoring.
  The Forest and Cottonwood BLM are covered under a Master Cooperative Fire Protection Agreement and Statewide Annual Operating Plan. One of the plans key features is the operation of the Grangeville Interagency Dispatch Center. In FY 2004, the Cottonwood BLM worked on a joint project, Whiskey South, to reduce fuels around the Elk City Township. The Forest portion was 70 acres. The project was enjoined by the court and is pending additional NEPA documentation.

- **Federal Highway Administration (FWHA)**

  The Forest works with the Federal Highway Administration in matters related to the Forest highway program and Emergency Repair – Federally Owned (ERFO) program. Currently, the Forest and the Administration are involved in a proposed 10.2 mile Salmon Road reconstruction project.

- **Idaho Conservation Data Center (ICDC)**

  The Forest and ICDC cooperatively develop conservation strategies and conduct presence/distribution surveys for sensitive species. The Center provides rare species sighting data queries for biological evaluation. Each year the Center provides the Forest with a copy of the State Rare Element Occurrence database. The database simplifies data gathering and analysis required for NEPA analysis.

- **Idaho County and Highway Districts**

  The Forest, Idaho County and the Highway Districts cooperate on road maintenance on road sections covered by agreements. Idaho County provides funding support for the snowmobile trail grooming program and plows snow for park, ski, and snowmobile programs.

- **Idaho County Weed Control**

  The Forest works in close cooperating with Idaho County Weed Control in the management of noxious weeds and other exotic plants. The Forest and Idaho County Weed Control share resources and skills in implementing an integrated weed program across Idaho County and work together to improve the coordination and integration of weed programs

- **Idaho Department of Environmental Quality (DEQ)**

  In 2003 and 2004, the Forest coordinated with the South Fork Clearwater Watershed Advisory Group (WAG). This group was formed by the State of Idaho primarily to coordinate activities pertaining to Water Quality Limited Streams and the Comprehensive State Water Plan. The Forest represented federal land management agencies on the WAG and provided technical support. In 2004, the Forest also coordinated with the Little Salmon Watershed Advisory Group in a technical advisory role.

- **Idaho Department of Water Resources (IDWR)**

  Under Stream Channel Alteration Act provisions, the Forest consulted with the IDWR with respect to activities affecting stream channels. The Department is also involved in administering the Snake River Water Rights Adjudication. The IDWR continued Comprehensive State Water Planning in the South Fork Clearwater River subbasin, under a 2002 Memorandum of Understanding with the Forest Service.

- **Idaho Department of Fish and Game (IDFG)**

  The IDFG works with the Forest in collaborative and resource advocacy roles. Their involvement in FY 2003 and FY 2004 included:

  - Elk mortality research and incidental wildlife information gathering;
  - Information and support of Forest threatened, endangered, and sensitive species assessment issues;
  - Participation in sensitive species surveys, Neotropical migrant survey/monitoring, and non-game management planning;
  - Partner in responding to Senator Crapo regarding Elk Collaborative Recommendations
  - Continuation of South Fork Clearwater Subbasin interagency bull trout inventory work; and
  - High mountain lake baseline fish populations and physical lake characteristics inventory surveys.
  - Red River Wildlife Management Area restoration project
  - Wildlife habitat improvement projects including the Blanco Burn, a cooperative project with the Rocky Mountain Elk Foundation.

The IDFG activities in big game monitoring, research, collaboration in developing species conservation assessments, as well as the ICDC information provide support and help eliminate duplicate work.

- **Idaho Department of Lands (IDL)**

  An agreement between the State of Idaho and federal land management agencies was rewritten in 1996. One objective was to make the exchange of resources easier. This agreement remains in effect. The Forest and IDL are covered under a Master Cooperative Fire Protection Agreement and the Statewide Annual Operating Plans of 2003 and 2004.

- **Idaho Department of Transportation (DOT)**

  The Forest works with DOT on State Highway 14 management. The Forest's programmatic road maintenance requirements are being incorporated into all cooperative road agreements.

- **Idaho Division of Aeronautics**

  The Division periodically inspects Forest backcountry airstrips and remains involved in new backcountry airstrip proposals and management.

- **Idaho Outfitters and Guides Licensing Board**

  Through a formal agreement, the Forest Service and the Board coordinate the permit and enforcement process for outfitters and guides providing public services on national forest lands.

- **Idaho Soil Conservation District (ISCD)**

  The ISCD is the lead agency for the Red River Wildlife Management Area restoration project. The project is located on lands administered by the IDFG. The Forest provided technical and administrative assistance on the project in 2003 and 2004. In January 2004 the Soil Conservation District requested that they opt out in October 2004 and that IDFG take over sponsorship.

- **Idaho State Historic Preservation Office (SHPO)**

  The SHPO monitors the Forest's compliance with Section 106 of the National Historic Preservation Act of 1966. The office reviews all cultural resource reports and site record forms. If a cultural resource is to be impacted by a Forest activity, the impact is mitigated through consultation with SHPO.

- **National Oceanic and Atmospheric Administration - NOAA** (National Marine Fisheries -NMFS)

  The NOAA Fisheries provided Endangered Species Act, Section 7, informal consultation support and/or concurrence on biological assessments for Forest listed and proposed fishes. The Forest works with NOAA in the Level 1 consultation process.

- **Nez Perce Tribe**

  The Nez Perce Forest was one of five forests that signed a 1998 MOU with the Nez Perce Tribe. The MOU exempts tribal members from paying campground fees at developed campgrounds and from stay limits when the Tribal member is engaged in tribal hunting, fishing, or gathering activities. Forest Service law enforcement has coordinated with Tribal law enforcement to enforce the MOU and deal with any protests by tribal or non-tribal members. In addition, Forest wolf populations monitoring and wolf recovery management activities are conducted by the Tribe's wolf recovery program.

- **Nez Perce Tribe/Biocontrol Center**

  Nez Perce National Forest entered into a Participating Agreement with Nez Perce Tribe to collect and distribute insects for noxious weed control.

- **Nez Perce Tribe/Columbia River Inter-Tribal Fish Commission**

  The Nez Perce Tribe assisted the Forest with cultural awareness, recruitment, and training activities. This assistance helped diversify the workforce and accomplish resource management objectives. The Nez Perce Tribe is sponsoring a young horseman's program called **Appaloosa**. This group concentrates on learning packing skills through an outfitted educational trail ride program. The Forest supports this activity by teaching packing skills with the Forest and the 9 Mile Pack Train teams.

- **State of Montana and State of Idaho (Air Quality)**

  The Forest joined the Montana/North Idaho Airshed Group in 1990. This group's objectives include: 1) Minimizing or preventing smoke impacts in North Idaho and Western Montana and 2) Meeting national ambient air quality standards when conducting prescribed burning. The Group was effective in meeting national ambient air quality standards in 2003 and 2004. The Forest follows daily smoke management advisories provided by the monitoring unit administrator and meteorologist.

- **U.S. Army Corps of Engineers (COE)**

  The COE was consulted on wetland and stream channel projects per Section 404 of the Clean Water Act.

- **U.S. Fish and Wildlife Service (FWS)**

  The FWS provided informal consultation support and/or concurrence on biological assessments under the Endangered Species Act on biological assessments for Forest listed and proposed species. The FWS provides a statewide information repository related to wolf, peregrine falcon, bald eagle, grizzly bear, Canada lynx, and bull trout recovery efforts.

  The FWS provided informal consultation support and/or concurrence on biological assessments under the Endangered Species Act on biological assessments for Forest listed and proposed species. Additionally, the FWS provided technical assistance and support in developing conservation assessments and strategies for several Forest species (I'm not aware of any Wildlife species). The FWS provides a statewide information repository related to wolf, peregrine falcon, bald eagle, grizzly bear, Canada lynx, and bull trout recovery efforts. The FWS project approval processes required by law can complicate or temporarily delay Forest decisions and project implementation.

- **University of Idaho (U of I)**

  The Forest and U of I cooperated on weed management projects involving vegetation and biocontrol-agent monitoring; weed-infested site revegetation; and other research opportunities such as McComas Meadows.

SECTION 3: OTHER MONITORING

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

NEZ PERCE NATIONAL FOREST ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

1) What did we accomplish?

The Forest has plans on file to renovate a family residence at the Fenn Ranger Station for accessibility. Work has begun on conceptual plans for renovating a bunkhouse and a family residence for accessibility at each ranger station.

The new accessible office and visitor center at Fenn Ranger Station was completed in the fall of 2003. We are now able to provide accessible visitor services and barrier free employment at all our administrative sites on the forest. The accessible visitor services at the Fenn Ranger Station include interpretive displays of local and forest service history.

A new accessible warehouse at the Grangeville Air Center was built. We are still finishing the inside of this building. A sidewalk has been completed to one door and provides easy access. Other dirt/gravel walkways to the building provide difficult access. This building will be completed as funding becomes available. The sidewalk that provides access to a museum at the Slate Creek Ranger Station was completed in the spring of 2003.

2) What outputs and/or work were planned that did not get accomplished?

We were unable, again, to make progress on administrative site accessibility surveys and transition plans. However, all administrative site surveys and transition plans will be completed as soon as time permits.

3) What practices need to be changed based on monitoring results?

None.

4) What are current resource conditions and trends compared to desired conditions?

Forest-wide, three recreation sites (including a fishing area) are accessible at the Easy level, another four sites are accessible at the Moderate level, and twenty sites are accessible at the Difficult level see Table 38. Red River District coordinates with Idaho Department of Fish and Game to provide a hunting program for mobility impaired hunters. Two other districts on the Forest, Moose Creek and Clearwater, should be prepared for accessible hunting for the 2005 hunting season. The goal is to provide accessible opportunities throughout the entire spectrum of Forest recreation. We are making progress, but much remains to be done.

With the completion of the Fenn Visitor Center, the Forest headquarters office and all district offices now have accessible office space available. The goal to provide accessible offices and residences at all administrative sites is close to being achieved, we still need to provide accessible housing at the Fenn Ranger Station. The trend is positive.

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

In 1991, the Nez Perce Forest Human Resources Team identified the need to evaluate Forest facilities for accessibility to people with disabilities. In June 1991, a survey was initiated using a new Forest Service accessibility survey tool designed to determine Forest campgrounds/picnic area accessibility. A special emphasis program was created in 1992 to address issues concerning people with disabilities. During the initial facilities monitoring stages we realized the need for TDD (Telecommunication Devices for the Deaf) to provide better customer service. TTDs have been installed in all district offices and the Forest Headquarters. The TTD phone numbers are published in local telephone directories.

Table 38: General Descriptions of Accessibility Levels (A Design Guide/Universal Access to Outdoor Recreation)

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

Monitoring Results

Table 39: Mobility Accessibility by Accessibility Levels for Forest Facilities

Facility	Easy/Accessible	Moderate	Difficult
Fish Creek Pavilion 1994 (100 People)	Up to 75 people	Up to 100 people	0
Fish Creek Campground (11 Sites)	9 campsites	2 campsites	0
Blackerby Picnic Area (2 Sites)	0	2 picnic sites	0
Castle Creek Campground (9 Sites)	0	8 campsites	0
South Fork Campground (9 Sites)	6 campsites	2 campsites	1 campsite
Slims Camp Campground	0	0	Accessible at this level*
Selway Falls Campground	0	0	Accessible at this level*
Selway Fish Pond	Accessible at this level		
O'Hara Bar Campground (32 Sites)	0	5 campsites	10 campsites
Spring Bar Campground (17 Sites)	0	6 campsites	3 campsites
Allison Creek Picnic Area (2 Sites)	0	0	1 picnic site
Wildhorse Campground	0	0	Accessible at this level*
Florence Cemetery			Accessible at this level*
McAllister Picnic Area			Accessible at this level*
Johns Creek Trailhead			Accessible at this level*
Cougar Creek Trailhead			Accessible at this level*
Trapper Creek Trailhead			Accessible at this level*
14 Mile Tree Trailhead			Accessible at this level*
Rocky Bluff Campground			Accessible at this level*
Meadow Cr. Campground			Accessible at this level*
Nelson Creek Campground			Accessible at this level*
Red River Campground			Accessible at this level*
Wild Horse Campground			Accessible at this level*
Johnson Bar Campground			Accessible at this level*
CCC Campground			Accessible at this level*
Sing Lee Campground			Accessible at this level*
Iron Phone Junction			Accessible at this level*
Leggett Creek			Accessible at this level*
5-Mile Pond			Accessible at this level*
Nez Perce Forest Headquarters Office	Accessible at this level		
Slate Creek Ranger District Office	Accessible at this level		
Clearwater Ranger District Office	Accessible at this level		
Red River Ranger District Office	Accessible at this level		
Elk City Ranger District Office	Accessible at this level		
Moose Creek Ranger District Office	Accessible at this level		
Moose Creek Visitor's Center	Accessible at this level		

*Depending on weather

Evaluation of Monitoring Results

With the completion of an accessible Visitor Center at the Fenn Ranger Station, the Forest Headquarters and all district offices now provide accessible office space to everyone.

A triplex apartment building, our first fully accessible employee residences, was completed at the Elk City Ranger Station in 1996. Work has begun on conceptual plans for renovating a bunkhouse and a family residence for accessibility at each ranger station, but limited personnel available for planning these renovations are slowing progress. Renovation will be undertaken when a need arises or when funding becomes available.

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HERITAGE RESOURCES

1) What did we accomplish?

- During FY2003, two new heritage-sites were reported for the Forest
- 144 acres were reported as surveyed for heritage resources
- Thirty-one sites were revisited and monitored to assess site condition

2) What outputs and/or work were planned that did not get accomplished?

- A change in the Heritage Forest Program Manger occurred in FY2003. The resulting discontinuity makes assessing unaccomplished outputs difficult, however, all MAR related targets were met.

3) What practices need to be changed based on monitoring results?

- None

4) What is the current resource condition and trend compared to desired conditions?

- Compatibility with desired condition is generally good; however, the continuance of Forest Plan mandated "upward-trend" aquatic projects will continue to adversely affect heritage resources.

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LANDS AND SPECIAL USES

1) What did we accomplish?

- Maintained and monitored INFRA, the Special Use Data System
- Maintained Forest Boundary
- Processed most permit applications

2) What outputs and/or work were planned that did not get accomplished?

- Several expired Special Use Permits were reviewed but processing was not completed
- The Forest was unable to address unauthorized uses

3) What practices need to be changed based on monitoring results?

- Additional funding and staffing are needed to address the number of unperfected right-of-ways to public lands in a timely manner. Additional funding and staffing is also needed to process permit renewals and applications.
- The Forest needs to prioritize unauthorized uses and prosecute cases under the statutes and title. County RS-2477 validations continue making Forest access management a potential problem.

4) What is the current resource condition and trend compared to desired conditions?

- The Forest's progress in dealing with unperfected right-of-ways is slow.
- The Forest is unable to address both expired permits and permit applications in a timely manner.

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ENVIRONMENTAL ANALYSIS ACCOMPLISHMENTS RELATED TO TIMBER

The following table and discussion summarize Forest Supervisor authority environmental analysis accomplishments between FY 1988 and FY 2004. Beginning with FY 1993, District Ranger authority environmental analysis accomplishments are also included.

Table 40: Timber Environmental Analysis Summary

Fiscal Year	Number of Decisions	Included Number of Sales	Total Acres Analyzed	Proposed Harvest Acres	Average Harvest Volume (MMBF) per Timber Sale	*Proposed Harvest Volume (MMBF)
1988	3	3	24,400	1,662	9.0	27.0
1989	8	15	164,480	5,908	6.8	102.1
1990	2	7	38,296	4,677	6.0	42.1
1991	3	11	81,964	6,164	8.0	88.5
1992	1	1	4,034	351	10.4	10.4
1993	5	5	25,716	2,461	4.1	20.5
1994	5	35	11,230	319	0.04	1.3
1995	9	11	6,730	386	0.4	4.1
1996	8	13	11,480	1,160	0.9	12.1
1997	4	6	45,775	4,509	3.26	22.3
1998	3	3	17,075	4,675	4.44	13.3
1999	2	2	4,553	362	1.3	2.6
2000	1	1	18,000	340	1.6	1.6
2001	1	1	9,750	1,055	9.5	9.5
2002	1	1	16,000	3,440	9.5	9.5
2003	1	1	27,000	5790	18.0	18.0
2004	3	3	27,000	2,746	7.5	22.6
Yearly Average	3.5	7.0	31,423	2,706	5.9	24.0
Total	60	119	534,183	46,005	N/A	407.5

*Volume figures may be slightly different than other figures in this report due to rounding.

Evaluation of Monitoring Results:

Many National Environmental Policy Act (NEPA) documents require more than one year to complete. This results in high variability from year to year with respect to the number of decisions and acres analyzed. During FY 2004, analysis was ongoing for three timber output related documents, not depicted on the above table.

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NOXIOUS WEED MANAGEMENT

1) What did we accomplish?

- Forest personnel treated approximately 2000 acres of invasive weeds over two fiscal years.
- Insects were released for control of spotted knapweed
- Weed treatment continued in the Frank Church River of No Return Wilderness.
- The Forest continued implementing weed free forage requirements and washing of off-road logging equipment as prevention practices.
- The Forest continued integrating the noxious weed program with community based coordinated weed management efforts in the Salmon and Clearwater drainages.
- Forest personnel along with other federal and state agencies implemented an interagency Weed Management Strategy for Idaho.
- The Forest, University of Idaho, Forest Health Protection Group, and Nez Perce Tribe Bio-control Center monitored biocontrol agents for yellow starthistle and Spotted knapweed in the Salmon and Clearwater basins. The work included distribution, release and monitoring of approved insects.

2) What outputs and/or work were planned that did not get accomplished?

- Treated invasive weed acres are under 10% of the total infestations found on the Forest.
- Weed management off the Forest across all lands is far below the level necessary to slow the spread of many weeds. Limited funding requires weed managers to strongly prioritize management efforts.

3) What practices need to be changed based on monitoring results?

- The coordinated implementation of prevention practices statewide (all lands) is poorly developed, causing ineffective and inconsistent results across a broad regional scale.
- More emphasis and time needs to be placed on coordinating practices and treatment across all ownerships.
- A long-term early alert system needs to be developed to track the introduction and spread new invasive exotic plants into the region and state.
- Additional funds are needed to manage and treat invasive weeds at a biologically significant level.
- Invasive weed management needs to be integrated into vegetation restoration strategies that are being implemented across all property ownerships.

4) What are the current resource conditions and trends compared to desired conditions?

- Many noxious and invasive weeds continue to spread across the Forest and on other lands. Low elevation grasslands, conifer savannas, and recently disturbed sites are at greatest risk for invasion by invasive weeds.

- Transportation corridors (trails and roads) and river systems continue to be the main pathway of weed spread.

- Broad scale partnerships resulted in more coordinated weed management across all properties.

Noxious Weeds Introduction

Noxious weeds and invasive weeds are a rising concern on federal lands. Invasive weeds can invade healthy ecosystems, displace native vegetation, and affect species diversity and wildlife habitat. Widespread infestations may lead to soil erosion, reduce quality of recreation for visitors, and threaten the long-term viability of rare plants. Invasive weeds are a major threat to our native biodiversity.

The Nez Perce National Forest continues to implement a proactive, integrated management program for Invasive weeds. The program includes education/awareness, inventory, treatment, prevention/early detection and monitoring. The program is integrated with Idaho County Weed control and is based on a strong prioritization process. Noxious weed management priorities for the Forest are to:

- Prevent establishment of potential invaders;
- Eradicate new invasive weeds;
- Control satellite infestations including treatment of transportation corridors and concentrated human activity areas; and
- Contain large established infestations.

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

In Idaho, the Forest Service requires certified weed seed free or weed free hay and feed products be used, as part of a statewide prevention program. The Forest continues to work with Idaho County to ensure that local certified products are available. Timber sale and equipment contracts require machinery and equipment be washed to prevent the spread of weed seed.

During the FY 2003 and FY 2004 seasons, district and Forest personnel worked with user groups and interested parties to identify and highlight the risks of invasive exotic plants. District personnel led field trips to review infestation and risk levels in sensitive areas such as wilderness and along Wild and Scenic rivers. Road signs on main portals alert users of certified hay requirements.

Each district has an invasive weed coordinator who directs inventory, control, and monitoring activities. Noxious weeds are routinely addressed in analyses for ground disturbing or habitat altering activities. Weed susceptibility was modeled in watershed and subbasin assessments.

A variety of tools are used to treat weeds. In FY 2003 and FY 2004, weeds were treated by releasing biological control agents, manual pulling, seeding disturbed sites, and herbicides. Volunteer groups were active in manual spotted knapweed control along the beaches of the Wild and Scenic sections of the Salmon River. Bio-control insects were released to treat yellow starthistle and spotted knapweed. The treatments are consistent with the estimated level outlined in the Forest Plan.

The Forest is involved in three local cooperative weed management areas: Salmon River Weed Management Area, Clearwater Basin Weed Management Area, and the Frank Church River of No Return Wilderness Wee Management Area. There community based efforts encompass the National Forest. Collaborative plans are being implemented by Idaho County, private landowners, and federal/state land management agencies. The intent of the weed management areas is to bring together those responsible for weed management, develop common management objectives, facilitate effective treatment, and coordinate efforts along logical geographic boundaries with similar land types, use patterns, and problem species. The result of this effort is the integration of the Forest weed program with county and state efforts.

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

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SENSITIVE PLANTS

1) What did we accomplish?

- Forest personnel continued to survey Sensitive plants in high probability habitats. Surveys were conducted within planned project areas.
- New occurrences of sensitive plants were found and documented.
- Monitoring continued on Puzzling Halimolobos, broad-fruit mariposa and Cluster lady-slipper.
- Biological Assessments (BA) and Biological Evaluations (BE) continue to be completed for proposed projects.
- Rare plants are being integrated into landscape and planning area assessments.

2) What outputs and/or work were planned that did not get accomplished?

- Monitoring data over the past few years has not been summarized.
- Suitable habitat inventory outside project areas continues to be low priority.

3) What practices need to be changed based on monitoring results?

Rare plants need to be more integrated into project prescriptions and design. Many projects could be designed to improve sensitive plant habitats along with accomplishing other vegetation objectives.

4) What are the current resource conditions and trends compared to desired conditions?

It appears at this time that the known populations of sensitive plants are secure. The probability of population viability loss over the short-term is considered low. Monitoring suggests there is significant yearly variation in population levels. This variation appears to be a common trait among herbaceous plants.

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AIR RESOURCES

1) What did we accomplish?

- A key component of the Region 1 Air Resource Monitoring Program is the monitoring of lake chemistry, which is quite reactive to atmospheric processes. In FY 2001, Phase III monitoring of wilderness lakes to determine trends in acid deposition and other atmospheric related changes to lake ecosystems were done. Shasta Lake in the Selway Bitterroot Wilderness has stable to slight upward trends in pH, ANC, and conductivity.

- No active sampling of air quality was done on the Forest. However, Sula Peak, to the east of the Forest, monitored fine mass concentration of air that passed over the Forest.

- The Forest supported air quality forecasting through daily balloon launches during the fall burn period, and through coordinating smoke management reporting for North Idaho Airsheds.

2) What outputs and/or work were planned that did not get accomplished?

- Currently the Forest has completed all planned monitoring of air resources.

3) What practices need to be changed based on monitoring results?

- None.

4) What are the current resource conditions and trends compared to desired conditions?

- Currently the air quality on the Forest is good and monitoring does not indicate any significant deterioration from desired condition.

A national initiative to substantial increase hazardous fuels treatments in short fire return interval ecosystems on federal land would produce a corresponding increase in smoke and particulate matter, if the only treatment is prescribed fire. Future hazardous fuels project proposals should include tradeoff analysis of prescribed fire v. mechanical treatments to assess the smoke effects. Prescribed fire operations were occasionally constrained by the Airshed coordinator during the fall burn period.

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SECTION 4: RESEARCH NEEDS

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

1. **The Elk Guidelines Habitat Suitability Index** (HSI) model represents a composite of factors and variables affecting elk behavior from all over the west. The North Idaho Summer Elk Model was developed to assess impacts to summer elk habitat effectiveness: Given wholesale changes in forest management philosophy and implementation which began in the mid-1990's, the continued need for and use of the current "elk guidelines model" as a tool to guide elk habitat changes are being evaluated in the Forest Plan Revision process.

   a. **Status:** A team of biologists from IDFG, Nez Perce and Clearwater Forests, and the Nez Perce Tribe conducted a technical review and proposed edits/improvements to the existing Guidelines for Evaluating and Managing Summer elk habitat in Northern Idaho (Leege 1984). A draft proposal titled, "Interagency Guidelines for Evaluating and Managing Elk Habitats and Populations in Central Idaho" (Servheen, 1997; Wildlife Bulletin No. 11) was prepared. An on-forest interdisciplinary review concluded a significant Forest Plan amendment may be required prior to forest-wide application of the 1997 updated model. Forest Plan Revision may address the need to improve the 1984 assessment tool.

2. **Moose winter range conservation and other questions that previously needed to be addressed have diminished in importance in recent years:**

   2003 and 2004 Update: With dramatic shifts in forest management philosophy as well as other modifications in both the extent and methodologies of timber harvesting used on the Nez Perce National Forest in recent years, most of the questions and concerns pertaining to maintenance and protection of old age grand fir/yew winter habitats have mostly disappeared. Clearcutting and burning of late seral grand fir/Pacific yew stands is no longer considered part of current forest management. Due to these dramatic changes, the driving need to answer these questions has fallen in priority and no research is currently pending to address these issues at this time.

3. **The consequences of repeated burning, and of maintenance of Forest ecosystems in prolonged seral brush stages, once needed to be evaluated.**

   2003 and 2204 Update: Dramatic shifts in forest management philosophy and recognition of soil maintenance needs as well as the practices of managing to emulate "natural disturbance regimes" and "historical ranges of variability" have begun to replace outdated approaches aimed at maintaining seral brush stages on a given site indefinitely. For this reason, the practice of repeated intensive burning for such purposes is used less and as a result, levels of concern over this practice are declining. No research is pending at this time.

4. **Determining the relative effectiveness of fertilization compared to burning for improving wildlife habitat was previously needed.**

   2003 and 2004 Update: Fertilization costs versus those of prescription burning are comparatively high. Dramatic reductions in appropriated funds and other revenue sources have placed greater

emphasis on land treatment cost-effectiveness. For this reason, the practicality of using fertilization as an economical approach to habitat improvement has virtually been eliminated. No research is planned or pending at this time.

5. **Determine and define corridor attributes needed to link old growth stands**.

   2003 and 2004 Update: Recent dramatic changes in forest management philosophy and practices have essentially eliminated the application of broad-scale clear-cut and burn treatments that tend to isolate forest stands and fragment landscape conditions. Riparian habitat conservation area implementation helps reduce habitat fragmentation. Current philosophies consider maintaining and increasing late-seral and old growth acreage and patch sizes. Old forest habitat arrangement, including greater consideration of connectivity and habitat continuity, are being addressed. In lower elevation forest types such as ponderosa pine and dry Douglas fir, prescription fire application is promoted to help protect late-seral and old growth patches from high-intensity, stand-replacing wildfire. Wildfire is becoming recognized as a serious threat than present or future timber harvesting to old growth habitat integrity in some forest types. As a result, the need to link old growth stands is becoming a declining issue in forest management. No research is planned or pending at the local scale at this time.

6. **Natural stand dynamics and disturbance regimes for riparian habitat types** are poorly described. Silviculturists need to be able to predict effects of timber management on stand regeneration, competition, future stand composition, and insect and disease patterns, as well as factors affecting riparian and stream function including shading, bank stability, and large woody debris inputs. Methods need to be developed to monitor the effects of timber harvest and other activities on riparian areas.

7. **Habitat relationships and limiting factors for most sensitive and some new federally listed species (both plant and animal) are poorly understood.** Research is needed to better define critical habitat components for these species and risks posed by changing Forest management emphases and natural disturbances that may be outside the range of natural variability.

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

8. **Watershed and reach response to natural fire disturbance and rates of recovery** are not well described in watershed models currently in use. Research is needed to describe debris torrent and water yield effects on channel attributes, and watershed recovery rates in terms of temperature, sediment and substrate condition, and channel morphology.

   2003 and 2004 update: These remain critical unmet research needs. Forest level studies have been in place since the 1988 fires and provide some information. Rocky Mountain Research Station has proposed studies for FY 2002-2003 to address this need.

9. **There is a lack of published data concerning the effects of operating a suction dredge in streams occupied by threatened, endangered, and sensitive aquatic species.**

10. <u>An accurate way of quantifying the short-term and long-term effects of road decommissioning on sediment production needs to be developed.</u>

2003 and 2004 update: Research coordinated by the Rocky Mountain Research Station has been proposed in Horse Creek to evaluate the effects of road decommissioning on sediment production, channel morphology, water yield and stream macro invertebrate populations. NEPA analysis was completed in 2001 and decommissioning is planned for 2003, with sampling through 2005 or 2006. Other road decommissioning projects are being monitored at the forest level for changes in stream cross-sections and substrate above and below restored stream crossings.

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SECTION 5: FOREST PLAN AMENDMENTS

Amending the Nez Perce National Forest Plan is a normal process necessary to improve our ability to care for the land. The need to amend the Plan was anticipated at the outset. Twenty-seven amendments are listed and summarized below. Three amendments were made in FY2003 and two were made to the Forest Plan in FY 2004. Copies of amendments are available at the Nez Perce National Forest's Supervisor's Office.

Amendment #1
Amendment 1 clarifies our intent to protect potential Wild and Scenic Rivers by providing more detailed forest-wide standards. Proposed management standards changes were developed following guidance contained in the Wild and Scenic River Evaluation section of the Forest Service Land and Resource Management Planning Handbook (FSH 1909.12, Chapter 8). (10/88)

Amendment #1 (Revised)
Revised Amendment 1 is exactly the same as the original amendment except the following statement has been removed. The amendment was necessary to settle an appeal of Amendment #1. (1/91)
"Boundaries may include adjacent areas needed to protect the resources or facilitate management of the river corridor."

Amendment #2
Amendment 2 clarifies the definition and management of Forest motorized recreation. (10/88)

Amendment #3
Amendment 3 modifies standards relating to minerals, wildlife, fish, and riparian area management listed in Chapter II (Forest-wide Management Direction) and Chapter III (Management Area Direction). The minerals section of Chapter VI (Summary of the Analysis of the Management Situation) the glossary and monitoring items are clarified. This amendment does 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. Concerns were addressed in a settlement agreement and a proposal for correcting the Plan. (3/89)

Amendment #4
Amendment 4 modifies standards listed in Chapter II (Forest-wide Management Direction), modifies the visual resource standards in Chapter III (Management Area Direction), and modifies specific monitoring requirements in Forest Plan Appendix O dealing with visual resource management. Management standard changes and clarification resulted from environmental analysis in the Wing Creek-Twentymile area. During the Wing Creek-Twentymile Draft Environmental Impact Statement comment period, concern was expressed on conflicting Forest Plan language pertaining to visual resource management. Concerns were analyzed and a proposal was developed to correct the Plan. (3/89)

Amendment #5
Amendment 5 corrects errors in Appendix A, Forest Fishery/Water Quality Direction by Prescription Watershed. Some of the changes are planning errors made in identifying sediment yield and entry

frequency guidelines. Site-specific analysis and stream surveys revealed some streams were incorrectly identified as not supporting anadromous fish. (3/89)

Amendment #6
Amendment 6 corrects errors in Chapter II (Forest-wide Management Direction), Chapter III (Management Area Direction), Chapter V (Implementation), Chapter VII (Glossary), and Appendix A (Fishery/Water Quality Direction). This amendment provides clarification that will not alter the multiple use goals and objectives as identified in the Forest Plan. Typographical errors were identified. Amendment 6 corrects those errors.

Appendix A describes current fishery habitat quality in West Fork Red River (Prescription Watershed 17060305-04-18) as 50 percent of potential habitat quality. This watershed is roadless and no management activities are known to have occurred in the watershed or the stream. The stream is in a pristine, natural condition and is appropriately displayed at 100 percent of potential habitat quality. (7/89)

Amendment #7
Amendment 7 clarifies language found in the following sections: Chapter II (Forest-wide Management Direction), Chapter V (Implementation), Chapter VI (Summary of the Analysis of the Management Situation), and Appendix O (Forest Plan Monitoring).

Management standard changes and clarification were the result of negotiations with the Nez Perce Indian Tribe on their appeal of the Nez Perce National Forest Plan. A settlement agreement and proposal for correcting the Plan addressed the appellant's concerns. The specific items modified provide clarification and do not alter the multiple use goals and objectives as identified in the Forest Plan. (1/90)

Amendment #8
Amendment #8 clarifies language in Appendix O (Forest Plan Monitoring Requirements). Clarification focuses on fish and wildlife monitoring. Specifically, the changes relate to forage production, wildlife population trends, and fisheries/watershed monitoring station costs. The clarifications do not alter the multiple use goals and objectives as identified in the Forest Plan. (1/89)

Amendments #9 and #10
These amendments address management practices specific to the Cove and Mallard Timber Sales as described in the Final Environmental Impact Statements. Amendment No. 9 was formally adopted in the Mallard Record of Decision, and Amendment No. 10 was formally adopted in the Cove Record of Decision. The amendments allow clear-cutting and sanitation/salvage harvesting within Management Areas 12 and 17. The amendments do not apply to other timber sales on the Forest. (11/90)

Amendment #11
Amendment 11 made Forest-wide monitoring program adjustments and updates fish/water quality objectives in Appendix A of the Plan. In the FY 1988 Nez Perce National Forest Monitoring and Evaluation Report, the Forest Interdisciplinary Monitoring Team recommended changes to make the monitoring program more comprehensive. Specific changes in the monitoring program and the fish/water quality objectives are listed in the Amendment No 11Decision Memo. (1/91)

Amendment #12
Amendment 12 makes minor changes to the Wall Creek Municipal Watershed direction (Management Area 22) contained in the Nez Perce Forest Plan. Changes relate to improving the range of management

practices identified in the Forest Plan, and specifically to items such as notifying the water district if a fire occurs in the watershed and taking special precautions with machinery and chemicals. (2/91)

Amendment #13
Amendment 13 brings the Plan into compliance with legal requirements and Forest Service directives regarding animal damage control. The amendment does not authorize any specific projects. (4/91)

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

Amendment #15
Amendment 15 amends the Frank Church-River of No Return Wilderness Management Plan and the Forest and Land Management Plans for the Bitterroot, Boise, Challis, Payette, Nez Perce, and Salmon National Forests. The amendment changes wording in the Wilderness Management Plan related to reducing the storage of items and removing plumbing fixtures from the wilderness. The amendment modifies the implementation schedule. (6/91)

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

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

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

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

Amendment #20
The Nez Perce Forest Plan was amended by the Chief of the Forest Service to incorporate an interim strategy for managing anadromous fish producing watersheds (PACFISH). (2/95)

Amendment #21
This was a project specific amendment based on the Hungry-Mill Final Environmental Impact Statement analysis. The amendment changed the summer elk habitat potential objective from 50 percent to 25 percent on 2,838 acres within the Hungry-Mill analysis area. (3/97)

Amendment #22
This was a project specific amendment based on the Berg Timber Sale Environmental Analysis. The amendment allows timber harvest within Management Area 20 (old-growth habitat) to improve and maintain the long-term sustainability of the ponderosa pine communities in areas of the Berg Timber Sale. The amendment is valid for the timber sale contract life and does not apply to future actions in this area or elsewhere on the Forest. (1/97)

Amendment #23
This amendment corrects summer elk analysis units and objectives that were mismatched in the original Forest Plan. (7/97)

Amendment #24
This was a project specific amendment based on the Hungry-Mill Final Environmental Impact Statement analysis. The amendment updated Forest Plan Appendix A information for several watersheds in the analysis area to account for new information on the species of fish that exist in these watersheds. (8/97) **The amendment was challenged in court and subsequently withdrawn (5/98).**

Amendment #25
This was a project specific amendment based on the Middle Fork Final Environmental Impact statement analysis. The amendment updated Forest Plan Appendix A information for three watersheds in the analysis area to account for new information on the species of fish that exist in these watersheds. (10/97)

Amendment #26
This was a project specific amendment based on the Middle Fork Final Environmental Impact Statement analysis. The amendment allows timber harvest within Management Area 20 (old-growth habitat) to improve and maintain long-term sustainability of the ponderosa pine community in unit F Middle Fork Timber Sale. The amendment is valid for the timber sale contract and does not apply to future actions in this area or elsewhere on the Forest. (10/97)

Amendment #27
This was a project specific amendment based on the East Meadow Creek Prescribed Fire Project analysis. The project needed allowance for short term, human-caused, fire related sediment increases in the stream. The amendment changes fish habitat and water quality objectives listed in Appendix A for 8 watersheds. The amendment is valid for the life of the prescribed fire project and does not apply to future actions in this area or elsewhere on the Forest. (2/99)

Amendment #28:
This amendment will change fishery/water quality objectives and/or sediment yield guidelines listed in Appendix A of the Nez Perce Forest Plan as amended in 1991 (Amendment 11). This amendment will be valid until the Forest Plan is revised or a separate amendment changes it. (2/11/03)

Amendment #29:
This amendment will allow timber harvest within Management Area 20 within the Meadow Face analysis area on the Clearwater Ranger District. This amendment suspends the Management Area 20, Section C, Timber resource Element, Standard #2 that states: "Schedule no timber harvest in existing old-growth until decade 10. Schedule no timber harvest in replacement old-growth stands until decade 16." This amendment is specific to units 13, 20, 21, and 27 approved by the Meadow Face Stewardship Pilot Project EIS and ROD. This amendment is valid only for these actions as described in the Meadow Face Stewardship Pilot Project EIS and ROD and does not apply to any future action in this area nor elsewhere on the Forest. (2/11/03)

Amendment #30:
This is a site-specific amendment of Forest Plan soil quality standard #2 for lands within the Meadow Face Stewardship Pilot Project analysis area. This site-specific amendment would allow the Meadow Face project to proceed even though some project activity areas will not maintain the minimum 80 percent non-detrimentally disturbed soil condition upon completion of activities that is called for in standard #2. The soil assessment for the Meadow Face project area has identified widespread detrimental disturbance caused by past activities. The Meadow Face project will implement soil restoration activities concurrent with other management activities, and provide a net improvement in soil conditions. (2/11/03)

Amendment #31:
Reference Pages: III-28 to III-29 for Management Area 9.3. Replaces Management Standards - Frank Church-River of No Return Wilderness Management Plan (Appendix L) with the revised Frank Church-River of No Return Wilderness Management Plan (12/2003). This amendment was necessary as previous direction in the Frank Church-River of No Return Wilderness Management Plan (as amended July 1994); the Middle Fork of the Salmon River Management Operating Plan (5/20/93); and the Salmon Wild & Scenic River Management Plan (3/30/82) is now consolidated into a single management plan with corrections, changes and amendments. (1/22/2004)

Amendment #32:
Reference Pages: III-57 for Management Area 20, Section C, Timber Resource Element, Standard #2 That states: "Schedule no timber harvest in existing old-growth until decade 10. Schedule no timber harvest in replacement old-growth stands until decade 16." This amendment will allow timber harvest within Management Area 20 (old growth wildlife habitat) located within the Clean Slate analysis area, as explained in the Clean Slate FEIS. Timber Harvest is permitted in all or parts of the designated old growth habitat within the Clean Slate analysis, but outside Roadless area 1850, during the life of any timber sale to improve and maintain the long term sustainability of this ponderosa pine community. (6/9/2004)

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SECTION 6: AUTHORS/EDITORS

The following individuals authored the FY 2003 – FY 2004 Nez Perce Forest Monitoring and Evaluation Report.

Name	Area of Expertise
Nick Gerhardt	Hydrology and Watershed
Mike McGee	Timber
Leonard Lake	Range, Botany, and Noxious Weeds
Randall Walker	Insects, and Disease
Rainette Didler/Lois Geary	Economics
Lois Geary	Budget and Finance
Randy Borniger/Laurie Doman	Recreation, Wilderness, Trails
John Fantini	Rivers
Steve Lucas	Heritage Resources
Ester McCullough	Land Management Planning
Joanne Bonn/Michelle Godowa	Wildlife
Scott Russell	Fisheries
Joe Bonn/Mike Shoup	Facilities
Paul Christensen	Disabled Persons Access
Daryl Mullinix	Lands and Special Uses
Vern Bretz	Minerals

The Forest Supervisor, Forest Staff Officers and District Rangers reviewed the report.

Name	Area of Responsibility
Jane Cottrell	Forest Supervisor
Steve Williams	Deputy Forest Supervisor
Michael Cook	Staff Officer: Lands, Admin, Trails, Engineering, & Recreation
Jim Gray	Staff Officer: Fire Zone
Melany Glossa	Staff Officer: Ecosystem Management
Jack Carlson	District Ranger, Salmon River Ranger District
Darcy Pederson	District Ranger, Clearwater Ranger District
Joe Hudson	District Ranger, Moose Creek Ranger District
Terry Nevius	District Ranger, Red River Ranger District

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SECTION 7: APPROVAL

I reviewed the Nez Perce National Forest FY 2003 and FY 2004 Forest Plan Monitoring and Evaluation Report prepared by the Forest Interdisciplinary Team. I am satisfied the Monitoring and Evaluation effort meets to the fullest extent possible, the intent of the Forest Plan (Chapter V) and 36 CFR 219. I considered the Interdisciplinary and Leadership Teams recommendations on proposed Forest Plan changes and will notify the Forest Plan Revision Team.

This report is approved:

/s/ Jane L. Cottrell 7/24/06

JANE L. COTTRELL **DATE**
Forest Supervisor

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SECTION 8: REFERENCES

Froelich. 1978. Cited in Soil Compaction Study Task Force Report, Regions 5 and 6.and PSW. USDA Forest Service. Report on file at forest headquarters. Page 16.

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Howes, S., J. Hazard, and J.M. Geist. 1983. Guidelines for sampling some physical conditions of surface soil. USDA Forest Service. R6-RWM-146-1983. 34 pp.

Howes, S. 2000. Proposed soil resource condition assessment. Publication on file. Wallowa-Whitman National Forest.9 pp.

Page-Dumroese, D. S. 1993. Susceptibility of volcanic ash-influenced soil in Northern Idaho to mechanical compaction. USDA Forest Service, Intermountain Research Station. Research Note INT-409. 6 p.