Nez Perce Forest Plan

Appendicies

This file contains Nez Perce Forest Plan appendices. In all but a few minor cases, the integrity of the page numbering is consistent with the original hardcopy of the Plan. Some graphs and maps that were "pasted into" the original Forest Plan master have been omitted. A few other tables that would be difficult to reproduce (and really aren't of much use anymore) have also been omitted.

The reader will notice some sections are highlighted with yellow, blue, red and green. The meaning of these highlights is shown below:

- **The yellow highlighted areas (usually containing numbers or short narrative sections) have been changed by amendment. For all yellow highlighted areas, the most up-to-date, amended values or text are displayed in this document. There is no need to refer to the amendment text.**
- **The aqua highlighted areas (usually numbers) show Forest Plan errors identified in the errata sheet that accompanied the original Plan. For all aqua highlighted areas, the most up-to-date, corrected values or text are displayed in this document. There is no need to refer to the amendment text.**
- **The green (usually inserted as a "trailer" to a particular section) indicates that there have been text additions to that section by amendment. In most cases, adding the additional text would disrupt the page numbering, thus, the reader needs to refer to appropriate amendment in the FP_Amendment file (in the same folder that contained this document) to determine what has been added. Once into the FP_Amendment file, the applicable Forest Plan amendment number is clearly displayed. In a few cases, where there was room, the addition has been inserted. When this has been done, the reader is advised.**
- **The red identifies sections that have had major text changes or replacements (usually expansions) by amendment. In most cases, adding the additional text would disrupt the page numbering, thus, the reader needs to refer to appropriate amendment in the FP_Amendment file to determine the updated wording. Once into the FP_Amendment file, the applicable Forest Plan amendment number is clearly displayed. In a few cases, where there was room, the changed text has been inserted. When this has been done, the reader is advised.**
- **The brown identifies sections that have been deleted and not replaced.**

Appendix A

FOREST FISHERY/WATER QUALITY DIRECTION BY PRESCRIPTION WATERSHED

Management areas are stratified by fishery / water quality objectives. These objectives provide management direction in terms of the maximum estimated increases in sediment over baseline conditions that can be approached or equalled for a specified number of years per decade. These drainage objectives along with sediment budgets are shown by prescription watershed in Table A-1. Maps in the Forest planning records tie the prescription watershed numbers to named watersheds on the Forest.

Table A-1 -- Forest Fishery/Water Quality Objectives by Prescription Watershed

Prescription Watershed Number	Prescription Watershed Name	Beneficial Use	Current Fishery Habitat Potential (%)	Fishery Water Quality Objective (% Habitat Potential) 5/	Sediment Yield Guideline - Approx. Max. Sediment Yield to Meet Fish Water Quality Objectives (% over baseline) **	Entry Frequency Guideline - Number of Yrs. in Decade 1 that Sediment Yield Guideline can be Approached or Equalled	Forest Plan Amend Numb-er
17060207-01-19	Lower Wind River	A	100	90	40 ***	1	
20	Bullion Creek	--	--	70	70	3	
21	Witsher Creek	--	--	70	70	3	
22	Scott Creek	--	--	70	70	3	
23	Sand Creek	R	70	70	50	3	
24	Meadow Creek	A	100	90	35 ***	1	
25	West Fk Meadow Creek	R	70	70	50	3	
26	East Fk Meadow Creek	R	70	70	50	3	
17060207-02-01	Upper Big Creek 1/	R	50	70	50	3	
02	Upper Crooked Ck 1/	R	50	70	50	3	
03	Lower Big Creek	R	100	70	60 ***	3	
08	Upper indian Creek	R	100	70	60	3	
09	Moccasin Creek	--	--	70	60	3	
10	Unnamed No. 10	--	--	70	70	3	
11	Unnamed No. 11	--	--	70	70	3	
12	Lower Indian Creek	R	100	70	70 ***	3	
13	Cougar Creek	--	--	70	60	3	
14	Rattlesnake Creek	--	--	70	70	3	
32	McGuire Creek	R	100	70	60	3	
17060207-03-01	Noble Creek	R	80	80	40	2	5
02	Grouse Creek	R	100	70	60	3	
03	Jack Creek	R	100	70	55	3	5
04	Middle Big Mallard Creek	R	100	80	40 ***	2	5
05	Upper Big Mallard Creek	R	100	70	55	3	
06	South Fork Big Mallard Ck	R	100	70	55	3	
07	Bat Creek	R	100	70	55	3	5
09	Lower Big Mallard Creek	A	90	90	40 ***	1	
10	Little Mallard Creek	A	90	80	40	2	5
11	Elkhorn Creek	R	100	70	70	3	
14	Rabbit Creek	R	100	80	45	2	5
15	Upper Rhett Creek	R	90	80	40	2	5
16	Lower Rhett Creek	A	100	80	60 ***	2	5
17	Blowout Creek	R	100	70	60	3	
17060207-03-18	Paine Creek	--	--	70	70	3	
19	Boise Creek	--	--	70	70	3	
20	No Man's Creek	--	--	70	70	3	
21	Tepee Creek	--	--	70	70	3	
22	Jersey Creek	A	100	80	45	2	5
23	Cove Creek	R	100	70	70	3	

See footnotes at end of Appendix.

A = Anadromous
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Table A-1 (Continued) Forest Fishery/Water Quality Objectives by Prescription Watershed

Prescription Watershed Number	Prescription Watershed Name	Beneficial Use	Current Fishery Habitat Potential (%)	Fishery Water Quality Objective (% Habitat Potential) 5/	Sediment Yield Guideline - Approx. Max. Sediment Yield to Meet Fish Water Quality Objectives (% over baseline) **	Entry Frequency Guideline - Number of Yrs. in Decade 1 that Sediment Yield Guideline can be Approached or Equalled	Forest Plan Amend Numb-er
17060207-04-01	Green Mountain Creek	R	100	100	0	0	
02	Upper Bargamin Creek	R	100	100	0	0	
03	Hot Springs Creek	R	100	100	0	0	
04	Poet Creek	R	100	100	0	0	
20	Myers Creek	R	100	70	55	3	
27	Porcupine Creek	R	100	100	0	0	
28	Unnamed No. 28	R	100	100	0	0	
29	Unnamed No. 29	R	100	100	0	0	
30	Upper-Middle Bargamin Ck	A	100	100	0 ***	0	
17060209-01-01	North Fk Whitebird Creek	A	90	90	30 ***	1	
02	Goose Creek	--	--	70	60	3	
03	Fish Creek	R	90	70	60	3	
04	Tollgate Creek	--	--	70	60	3	
05	Goodwin Creek	--	--	70	60	3	
06	Pinnacle Creek 3/	A	60	90	30	1	
07	South Fk Whitebird Creek	A	90	90	30 ***	1	
08	Cold Springs Creek	R	70	70	60	3	
09	Asbestos Creek	R	70	70	55	3	
10	Jungle Creek 3/	R	50	70	60	3	
11	Little Whitebird Creek 3/	A	65	80	35	2	
17060209-02-01	North Fk Slate Creek	A	80	80	45	2	5
02	Waterspout Creek	--	--	70	60	3	
03	Main Slate Creek	A	100	90	30	1	
04	Little Boulder Creek	R	70	80	45	2	
05	Lower Little Slate Ck 2/	A	50	90	30 ***	1	
06	Middle Little Slate Ck 2/	A	50	90	30 ***	1	
07	Upper Little Slate Ck 2/	A	50	90	30	1	
08	Turnbull Creek 2/	A	50	80	40	2	
09	Van Buren Creek 2/	A	70	90	30	1	
10	Deadhorse Creek	--	--	70	60	3	
11	Little Van Buren Creek	--	--	70	40	3	
12	Bear Gulch Creek	--	--	70	60	3	
13	No Business Creek	--	--	70	60	3	
14	McKenzie Creek	--	--	70	60	3	
15	South Fk Skookumchuck Ck	A	100	80	60	2	
16	North Fk Skookumchuck Ck	A	90	80	60	2	
17	Willow Creek	--	--	70	70	3	
18	Trough Creek	--	--	70	70	3	
19	Hurley Creek	--	--	70	70	3	
20	Slide Creek	--	--	70	70	3	
21	Rubie Creek	A	80	80	40	2	
22	Lower Main Slate Creek	A	100	90	30 ***	1	
17060209-03-01	East Fk John Day Creek	R	70	70	60	3	
02	Middle Fk John Day Creek	R	70	70	60	3	
03	Allison Creek	A	85	80	45 ***	2	
04	Van Creek	R	70	70	60	3	
05	Kelly Creek	R	70	70	60	3	
06	Robbins Creek	--	--	70	60	3	
07	Smith Canyon Creek	--	--	70	70	3	
08	Gasper Creek	--	--	70	70	3	
09	Flock Creek	--	--	70	70	3	
10	Chamberlin Gulch	--	--	70	70	3	
11	Spring Creek	--	--	70	70	3	
12	West Fk Allison Creek	A	85	80	45	2	
13	Plant Creek	--	--	70	70	3	
14	Gus Creek	--	--	70	70	3	
16	Berg Creek	--	--	70	70	3	
17	Little Berg Creek	--	--	70	70	3	
18	Lightening Creek	--	--	70	70	3	
19	Chair Creek	--	--	70	70	3	

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17060209-03-20	Fiddle Creek	--	--	70	60	3	
21	Sheep Gulch	--	--	70	60	3	
23	South Fk John Day Creek	R	100	70	60	3	
17060209-04-01	Deer Creek	--	--	70	60	3	
02	Joe Creek	--	--	70	60	3	
03	Christie Creek	R	70	70	60	3	
04	Sherwin Creek	R	70	70	60	3	
05	China Creek	R	70	70	60	3	
06	Cow Creek 3/	R	70	80	45	2	
07	Kessler Creek 3/	A	70	80	45	2	
08	South Fork Race Creek 3/	A	50	80	45	2	
09	West Fork Race Creek 3/	A	70	80	45	2	
17060210-01-01	Squaw Creek 3/	R	40	80	45	2	
02	Shingle Creek 3/	R	50	80	50	2	
03	Rapid River	A	100	100	0 ***	0	
04	Indian Creek 4/	R	50	70	60	3	
05	West Fk Rapid River	A	100	100	0	0	
06	Papoose Creek	--	--	70	60	3	
17060301-01-07	Patrol Creek	A	100	100	0	0	11
08	Lower Running Creek	A	100	100	0 ***	0	11
09	Lynx Creek	A	100	100	0	0	11
10	South Fk Running Creek	A	100	100	0	0	11
11	Middle Running Creek	A	100	100	0 ***	0	11
12	Warm Springs Creek	A	100	100	0	0	11
13	Tom Creek	A	100	100	0	0	11
14	Upper Running Creek	A	100	100	0	0	11
17060302-01-01	Roar Creek	--	--	70	65	3	5
02	Johnson Creek	--	--	70	65	3	5
03	Rock Creek	--	--	70	65	3	5
04	Rackliff Creek 2/	A	85	90	40	1	
05	Nineteen Mile Creek	R	100	90	40	1	
06	Slide Creek	A	--	80	50	2	5
07	Boyd Creek	R	100	90	40	1	
17060302-01-08	Twentythreemile Creek	R	100	70	65	3	5 & 11
09	Cache Creek	--	--	70	65	3	5
10	Glover Creek	A	100	90	40	1	
11	Unnamed No. 11	--	--	70	70	3	
12	Falls Creek	R	100	80	50	2	
13	SOB Creek	R	85	70	70	3	
14	Young Creek	--	--	70	70	3	
15	Wash Creek	--	--	70	70	3	
16	Island Creek	R	100	70	70	3	
17	Saddle Creek	A	100	90	30	1	
18	Wart Creek 3/	A	70	90	30	1	
19	West Fk O'Hara Creek	A	90	90	30	1	
20	Hamby Creek 3/	A	70	90	30	1	
21	Lower O'Hara Creek 3/	A	70	90	30 ***	1	
22	Goddard Creek 3/	R	70	80	45	2	
23	Elk City Creek	--	--	70	70	3	
24	Swiftwater Creek	R	100	80	45	2	
26	Fern Creek	--	--	70	70	3	
27	Daye Creek	--	--	70	70	3	
28	East Fk O'Hara Creek	A	90	90	30	1	

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17060302-02-01	Lower Meadow Creek	A	100	90	30 ***	1	
02	Indian Hill Creek	A	100	100	0	0	
03	Copper Creek	A	100	100	0	0	
04	Little Copper Creek	A	100	100	0	0	
06	Lower Buck Lake Creek	A	100	100	0 ***	0	
07	Disgrace Creek	A	100	100	0	0	
08	Vermillion Creek	R	100	100	0	0	
09	Schwar Creek	A	100	100	0	0	
10	East Fk Meadow Creek	A	100	100	0	0	
11	Upper Meadow Creek	A	100	100	0 ***	0	
12	Three Prong Creek	A	100	100	0	0	
13	Cabin Creek	A	100	100	0	0	
14	Top Meadow Creek	R	100	90	15	1	
17060302-02-15	Butter Creek	A	100	90	30	1	
16	Sable Creek	A	100	90	30	1	
17	Matteson Creek	R	100	90	30	1	
18	Tamarack Creek	R	100	90	30	1	
19	Middle Meadow Creek	A	100	100	0 ***	0	
20	Simmons Creek	A	100	90	30	1	
21	Butte creek	A	100	90	30	1	
22	Anderson Creek	A	100	90	30	1	
23	Dent Creek	R	100	90	40	1	
24	Little Boulder Creek	A	100	90	30	1	
25	Fivemile Creek	R	100	90	30	1	
26	Lower Horse Creek	R	90	80	45	2	11
27	Unnamed No. 27	--	--	70	70	3	
17060302-02-28	Unnamed No. 28	--	--	70	70	3	
17060302-03-23	Unnamed No. 23	--	--	70	70	3	5
24	Race Creek	--	--	70	70	3	5
25	Lower Gedney Creek	A	100	90	30 ***	1	
26	West Fk Gedney Creek	A	100	90	30	1	
29	Upper Gedney Creek	A	100	90	30	1	
30	Packer Creek	R	100	70	70	3	5 & 11
32	Renshaw Creek	R	100	70	70	3	11
35	Cupboard Creek	R	100	70	70	3	11
17060304-06-01	Pine Knob Creek 3/	A	50	80	45	2	
02	Little Tinker Creek	A	90	80	45	2	
03	Tahoe Creek	--	--	70	70	3	
04	Number One Creek	--	--	70	70	3	
05	Unnamed No. 5	--	--	70	70	3	
06	Unnamed No. 6	A	80	80	45	2	26
07	Lodge Creek 3/	A	70	80	45	2	26
08	Unnamed no. 8	--	--	70	70	3	
09	Decker Creek	A	80	80	45	2	11 & 26
10	Browns Spring Creek 3/	A	50	80	45	2	
11	Clear Creek 3/	A	50	90	30 ***	1	

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17060304-06-12	Solo Creek	A	70	80	45	2	
13	Middle Fk Clear Creek 3/	A	50	90	30 ***	1	
14	Kay Creek 3/	A	60	80	45	2	
15	South Fk Clear Creek 3/	A	50	80	45 ***	2	
16	Hoodoo Creek 3/	A	50	70	60	3	
17060305-01-01	Lower Johns Creek	A	100	90	30 ***	1	
02	Middle Johns Creek	A	100	90	30 ***	1	
03	Frank Brown Creek	A	100	90	30	1	
12	Upper Mill Creek	A	90	80	45	2	5
13	Trout Creek	R	100	70	60	3	
14	Merton Creek	--	--	70	60	3	
15	American Creek	R	70	70	60	3	
16	Lower Mill Creek	A	100	80	35 ***	2	
17	Deer Creek 3/	R	50	70	60	3	
18	Big Canyon Creek	A	90	80	35 ***	2	
19	Dry Gulch	--	--	70	60	3	
20	Grouse Creek	--	--	70	60	3	
21	Bivouac Creek	--	--	70	70	3	
22	Jungle Creek	--	--	70	70	3	
23	Bully Creek	--	--	70	60	3	
24	Dump Creek	--	--	70	60	3	
25	Cove Creek	--	--	70	60	3	
26	Gilmore Creek	A	100	90	30	1	
27	Basin Creek	A	100	90	30	1	
28	Snoose Creek	A	100	90	30	1	
29	Sourdough Creek	A	100	90	30	1	
30	Unnamed No. 30	A	100	90	30	1	
17060305-02-01	Rabbit Creek	--	--	70	60	3	
02	Rainy Day Creek	--	--	70	60	3	
03	Lower Tenmile Creek	A	90	90	30 ***	1	
04	Buckhorn Creek 2/	R	60	70	60	3	
05	Santiam Creek 2/	R	50	70	60	3	
17060305-02-06	Sixmile Creek 3/	A	50	90	30	1	
09	Upper Twentymile Creek	R	100	80	45	2	
10	Morgan Creek	A	100	90	30	1	
11	Lower Twentymile Creek	R	100	80	45 ***	2	
12	West Fk Twentymile Creek	R	100	80	45	2	
13	Wing Creek	A	100	80	60	2	5
14	Huddleson Creek	A	--	80	60	2	5
15	Otter Creek	--	--	70	70	3	5
16	Unnamed No. 16	--	--	70	70	3	5
17060305-03-01	Lower Crooked River 1/	A	50	90	30	1	
03	Relief Creek 1/	A	60	90	30	1	
04	Middle Crooked River	A	90	90	30	1	
05	Upper Crooked River	A	90	90	30	1	
06	West Fk Crooked River	A	90	90	30	1	

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17060305-04-01	Daw Creek 1/	A	50	70	60	3	
02	Lower Red River 1/	A	50	90	20 ***	1	
03	Siegel Creek 1/	A	60	90	35	1	
04*	Ditch Creek	A	50	90	30	1	
05*	Trail Creek	A	50	90	30	1	
06	Otterson Creek	A	100	90	30	1	
07*	Bridge Creek	A	70	90	30	1	
08*	Upper Main Red River	A	70	90	30	1	
09*	Baston Creek	A	80	90	30	1	
10*	Soda Creek	A	60	90	30	1	
11*	Main Red River	A	50	90	25 ***	1	
12	Schooner creek 3/	R	50	80	35	2	
13	Trapper creek 3/	A	50	90	30	1	
14	Pat Brennan Creek	R	70	70	60	3	
15	Lower South Fk Red River 3/	A	50	90	30 ***	1	
16	Upper South Fk Red River 3/	A	50	80	35	2	
17	Middle Fork Red River 3/	A	55	80	35	2	
17060305-04-18	West Fork Red River 3/	A	100	90	30	1	6
19	Moose Butte Creek 3/	A	50	90	30	1	
20	Little Moose Creek	R	70	70	60	3	
21	Blanco Creek	--	--	70	60	3	
22	Deadwood Creek 2/	R	40	70	60	3	
23	Red Horse Creek 1/	A	50	90	30	1	
24	French Gulch	--	--	70	60	3	
25	Campbell Creek	--	--	70	60	3	
17060305-05-01	Whiskey Creek 2/	R	45	70	60	3	
03	Buffalo Gulch 2/	R	40	70	60	3	
04	Big Elk Creek	MW	80	90	30	1	
05	Little Elk Creek 2/	MW	50	90	30	1	
06	American River 2/	A	50	90	30 ***	1	
07	West Fk American River 2/	A	50	90	30	1	
08	Lick Creek 3/	A	50	90	30	1	
09	Upper American River 2/	A	60	90	30	1	
10	East Fk American River 2/	A	60	90	30	1	
11	Kirks Fork 2/	A	50	90	30	1	
12	Whitaker Creek	R	70	70	60	3	
13	Queen Creek	R	70	70	60	3	
14	Flint Creek 2/	A	40	90	30	1	
15	Box Sing Creek	R	70	70	60	3	
17060305-06-01*	Upper Newsome Creek	A	50	90	30	1	
02*	Mule Creek	A	80	90	30	1	
03*	Nuggett Creek	A	50	90	30	1	
04*	Bear Creek	A	50	90	30	1	
05	Dutch Oven Creek	--	--	70	60	3	
06	Moose Creek 2/	R	50	70	60	3	
07	Allison Creek	--	--	70	60	3	
08*	Lower Newsome Creek	A	50	90	30 ***	1	
09	Leggett Creek 2/	A	50	80	35	2	
17060305-06-10	Fall Creek 2/	A	70	80	35	2	
11	Reed Creek	R	100	70	60	3	
12	Droogs Creek	--	--	70	60	3	
13	Surveyor Creek	--	--	70	60	3	
14	Lower Silver Creek	R	100	80	35 ***	2	
15	Upper Silver Creek	R	100	100	0	0	
16*	West Fk Newsome Creek	A	90	90	30	1	
17*	Sing Lee Creek	A	50	90	30	1	
18	Sawmill Creek	A	100	90	30	1	
19*	Pilot Creek	A	50	90	30	1	
20*	Baldy Creek	A	50	90	30	1	
21*	Haysfork Creek	A	50	90	30	1	
22*	Beaver Creek	A	80	90	30	1	

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17060305-07-01	Green Creek 3/	A	50	70	60	3	
02	Sears Creek	--	--	70	60	3	
03	Wall Creek	MW	--	90	40	1	
04	North Meadow Creek 3/	A	50	70	60	3	
05	Upper Meadow Creek	A	70	70	60	3	
06	Peasley Creek 3/	A	50	70	60	3	
07	Granite Creek	--	--	70	60	3	
08	Cougar Creek 3/	R	45	70	60	3	
09	Ralph Smith Creek	--	--	70	60	3	
10	Wickiup Creek	--	--	70	60	3	
11	Lower Meadow Creek 3/	A	60	80	35 ***	2	
12	Browns Creek	--	--	70	70	3	
13	Castle Creek	--	--	70	60	3	
14	Nelson Creek	--	--	70	70	3	
15	Sheep Creek	--	--	70	70	3	
16	Earthquake Creek	--	--	70	70	3	
17	Covert Creek	--	--	70	60	3	
18	Schwartz Creek	--	--	70	60	3	
19	Middle Meadow Creek 3/	A	50	80	35 ***	2	5
20	Lightening Creek 3/	A	50	80	45	2	

A = Anadromous, R = Resident, MW = Municipal Watershed, -- = No Fishery

1/ Streams listed in the category are below carrying capacity due primarily to a lack of diversity (pool structure). This problem is caused by the removal of all large boulders and woody debris from the stream through placer mining. These habitat components will be replaced through direct habitat improvement projects. Work will be scheduled in the latter part of the first decade (1989-1995). Work in Crooked River is underway, with an expected completion date of 1989. Timber management activities can occur in these drainages, concurrent with habitat improvement efforts, as long as habitat capacity shows a positive, upward trend.

2/ These streams are suffering from both a lack of diversity (similar to category 1) and excess sediment from past roading and timber management activities. Along with increasing diversity through direct habitat improvement, state-of-the-art techniques will be used to remove excess sediment from the gravel environment. Improvements will be scheduled between 1986 and 1995. Timber management can occur in these watersheds, concurrent with habitat improvement efforts, as long as a positive, upward trend in habitat carrying capacity is indicated.

3/ Sediment is the primary limiting factor in these streams. Improvements will be scheduled between 1986 and 1995. Timber management can occur in these watersheds, concurrent with improvement efforts, as long as a positive, upward trend in habitat carrying capacity is indicated.

4/ These two streams are limited by either excessive natural sediment or have suffered major hydrologic events which will be difficult to correct. Neither stream has a significant fisheries resource and no restriction of timber management activities are indicated.

5/ All objectives are relative to full biological potential of 100 percent. Due to varied productivity of each stream, the actual fish production per unit of habitat will vary.

* These streams are the Forest's priority drainages. Habitat improvement projects have been underway since 1980. Full habitat carrying capacity is expected by 1990. Streams involved are in the Newsome and Red River systems. Management-derived sediment which could affect fish habitat will not be allowed until monitoring indicates habitat has recovered to planned levels.

** The sediment yield guidelines were developed using the 1981 version of the Nez Perce Sediment Model and the 1983 version of the Fish Response Model. Technical refinements and model calibration may result in future changes to this column. The values displayed will be used as guidelines during project level analysis. Sediment model results will be used in conjunction with other factors and professional judgement to determine how fish / water quality objectives can be met.

*** These prescription watersheds, unlike most, are not true watersheds. By definition, a true watershed includes all the lands draining through a stream reach. These footnoted watersheds drain only part of such a hydrologic unit and generally contain the downstream reaches of relatively large streams. For sediment yield analyses on these downstream reaches, all upstream prescription watersheds are combined into a true watershed. Sediment yield guidelines (Column 6) apply only to true watersheds. Entry frequency guidelines (column 7) apply to prescription watersheds regardless of whether they are true watersheds.

Appendix B

Guidelines for Evaluating and Managing

Summer Elk Habitat in Northern Idaho

Note: This 37 page document is not reproduced here. Hardcopies are available in the Forest Plan and from your wildlife biologist.

APPENDIX C

FIRE MANAGEMENT DIRECTION

A. Introduction

The Nez Perce National Forest will provide for resource protection and fire use necessary to protect, maintain, and enhance resource values and attain land management goals and objectives.

Fire Management is a support function integrated with and responsive to the land and resource management direction established in the Forest Plan.

The National Fire Management Analysis System is a formal process that will be used to integrate fire management planning with land and resource management planning. The fire management direction established here will be used to guide the preparation of the Fire Management Analysis. The Fire Management Analysis culminates with the preparation of the Fire Management Action Plan which establishes and documents the fire programs that achieve the fire management direction established in this Appendix of the Forest Plan in the most cost-effective manner.

Because all Forest resources can be affected by fire, managers should carefully consider these basic concepts when forming plans, decisions, and actions:

1. Fire and the exclusion of fire have played a major role in the development of the ecosystems on the Nez Perce National Forest as we know them.
2. Prescribed fire from both planned and unplanned ignitions can be used to achieve land management objectives.
3. Fire management planning must consider fire application and ecological effects to provide all valid options for effective land management.
4. Aesthetic, visual, soil, air, and water quality concerns will dictate fire management direction in some areas.
5. Fuel buildup resulting from effective fire suppression has complicated fire management options in some areas.

B. Fire Management Direction?

The following direction is to ensure that fire use programs are cost-effective, compatible with the role of fire in forest ecosystems and responsive to resource management objectives:

1. Prescribe fire to maintain healthy, dynamic ecosystems that meet land management objectives.
2. Maintain an adequate cadre of well-qualified prescribed fire experts. Apply both technical knowledge and field experience in accomplishing prescribed fire needs.
3. Emphasize fire ecology implications when applying prescribed fire.
    a. Use fire ecology and fire management reference documents to guide project development, execution, and evaluation. Examples are:

- Fire Ecology Investigation in Selway-Bitterroot Wilderness (Habeck 1972).

- Revised Fuel Treatment Guides, Northern Region USDA Forest Service (1984).

b. Integrate an understanding of the role fire plays in regulating stand structure into the development of silvicultural prescriptions.

c. Emphasize the use of prescribed fire in range and wildlife habitat improvement projects.

d. Fire will be permitted in wilderness to the extent possible within prescriptions that provide for protection of life, property, and adjacent resources.

e. Prescribed fire programs will be responsive to National, State, and local air quality regulations and agreements.

f. An active inform and involve program is necessary to ensure public involvement, understanding, and approval of prescribed fire programs.

The following direction is to ensure that the fire presuppression programs are cost-effective and responsive to the Forest Plan.

1. Fire management direction emphasizes cost-effectiveness when selecting alternatives that will accomplish management objectives of the Forest Plan.
2. Unplanned ignitions will be managed as prescribed fires in predetermined areas under conditions that meet established prescriptions.
3. Suppression options other than control will be considered in some areas under established conditions.
4. The responsible line officers can require control in any Forest Plan Management Area at any time.

A summary of fire management direction by Management Area is shown in Table C-1.

Table C-1 -- Summary of Fire Management Direction By Management Area

	Forest Management Options				
	Wildfire			Prescribed Fire	
Management Area	Control	Contain	Confine	Unplanned	Planned
1	●	●	●	●	●
2	●				●
3	●	●	●	●	●
4 (Follow the direction for the adjacent area)					
6	●	●	●	●	●
7	●				●
8.1	●	●	●	●	●
8.2	●	●	●	●	●
8.3	●	●	●	●	●
9.1	●	●	●	●	●
9.2	●	●	●	●	●
9.3	●	●	●	●	●
10	●	●	●		●
11	●	●	●	●	●
12	●	●	●		●
13	●	●	●		●
14	●	●	●		●
15	●	●	●		●
16	●	●	●	●	●
17	●	●	●		●
18	●	●	●	●	●
19	●	●	●		●
20	●	●	●		●
21	●	●	●		●
22	●	●	●		●
23	●	●	●		●

C. Fire Management Analysis

The National Fire Management Analysis System provides analytical methods to determine the most cost-effective fire program to accomplish fire management objectives established by the Forest Plan. This process provides input for land and resource management planning and Forest and Regional program development and budgeting.

1. Forest Analysis - The Forest process has three components which integrate with Forest Planning.

   a. Level I - The analysis of the Forest's fire management program under the current management situation.

   b. Level II - The formulation and analysis of fire management program options, functional mixes, and/or budgets, to identify the most efficient program meeting the Forest Plan management direction.

   c. Level III - Procedures for developing and implementing the annual National Forest fire management program, including preparation of the Fire Management Action Plan.

2. Regional and National Analysis - The Regional and National process determines the kind, amount, and location of fire suppression forces and resources which are considered Regional or National in scope and are used but not planned or controlled by the Forest analysis, i.e., retardant planes, smokejumpers, etc.

3. Budget Analysis - The budget analysis process identifies the most efficient unit distribution of fire protection funds at any given National or Regional budget level and documents the consequences in terms of expected annual Forest Fire Fighting (FFF) cost and net resource value changes.

APPENDIX D

BACKGROUND ON MANAGEMENT AREAS, ANALYSIS AREAS, CAPABILITY AREAS, AND CELLS

To understand and implement the Forest Plan, distinguishing between levels of information used and the units they require is essential.

To accomplish the planning job, three levels of information were needed:

1. The level for combining resource inventories and portraying resource potential.

2. The level needed for modeling.

3. The level needed for summarizing management direction.

Detailed documentation exists in the planning records concerning the development of capability areas (CAs), cells, analysis areas, and management areas.

To serve the purpose of building blocks for the planning data base, capability areas need to meet a number of criteria. They must reflect the natural systems expressed by soils, vegetation, landforms, and aquatic components. Both the potential and existing conditions must be reflected. For existing conditions, various functional inventories are linked to the CAs. For example, photo interpreted (PI) types for existing vegetation are obtained from linking the timber inventory to the CAs.

Each capability area must be sufficiently homogeneous to respond predictably to proposed management activities. They must also be locatable on the ground. It must be possible to aggregate and disaggregate capability areas to various levels. Functional inventories and output scheduling must be tied to either CAs or aggregates thereof.

To represent the natural systems, three components were chosen upon which to delineate capability areas: landform associations, lithologic groupings (soils), and vegetative habitat types. The components are mapped and are locatable on the ground. They provide the means for predicting responses and estimates of potentials.

To provide for aggregation within political and geographic areas on the Forest, additional boundaries were added to divide the delineated CAs.

To provide a unique identity, a numbering scheme that utilized the existing compartment /subcompartment delineations was used.

For example, capability area 413401 represents CA "01" within compartment "413," subcompartment "4" as shown on Figure D-1.??Figure D-1?

In addition to the natural systems already mentioned, other information must be linked to capability areas. For example, the existing vegetation on the capability areas can be determined by overlaying the timber inventory stands with the capability areas. The same type of overlaying is also done on other resource inventories such as big game winter range and visually sensitive areas. This process is necessary so that functional inventories and output scheduling can be tied to CAs.

The result of overlaying these inventories is a list of vegetative condition class, big game winter range, visuals, etc., by acres within each capability area. The most important from the standpoint of aggregating scattered acres into a single analysis area is the existing vegetation. The CA subdivisions created by timber stand overlays are called cells. It is these cells, sawtimber, poletimber, etc., that are grouped or aggregated to form the analysis area.

Figure D-1 -- Capability Area Map

Note: Map not included here. See Forest Plan hardcopy.

In the following example, capability area 413401 represents CA 01 within compartment 413 and subcompartment 4 on Figure D-1.

As shown in Figure D-2, the following timber inventory stands are within capability area 413401: 50, 51, 52, 53, 54, 55, 56, 63.

Figure D-2 -- Capability Area Map Overlaid with Photo-Interpreted Stands

Note: Map not included here. See Forest Plan hardcopy.

Table D-1 shows the data we have on these stands.

Table D-1 -- Timber Stand Data

Note: Map not included here. See Forest Plan hardcopy.

The acres of these stands within the CAs are recorded and any that have the same combination of PI type (existing vegetative condition) and habitat type are combined. For example, Stands 50 and 51 are both PI Type 11 (primarily mature sawtimber) and habitat 620. The acres in these stands that are within the CA are combined. By combining stands and pieces of stands with the same PI and habitat type, five combinations result; these are "cells."

Table D-2 shows how these timber stands were combined to get five cells within CA 413401.

The actual assignment of the vegetative condition class was done based on the probability distributions as determined by the field sampling done in the 1973 timber inventory. These probabilities are based on variations in type / habitat type.

Table D-2 -- Data Used to determine Cells

Note: Map not included here. See Forest Plan hardcopy.

Based upon the properties in the columns Level 1 through the FORPLAN condition class, and grouping the land classes into four separate groups, each unique combination was an analysis area. Note that capability area 413401 as shown on Table D-3 has five cells going to three different analysis areas (AA's).

Table D-3 -- Cells, Condition Classes, and Analysis Areas

Note: Map not included here. See Forest Plan hardcopy.

Table D-4 shows basically the same information as Table D-3. The difference is that Table D-3 was sorted by CA and Table D-4 is sorted by analysis area (AA). Thus, one can begin to see for a given AA how many cells from other CAs are involved.

Table D-4 -- Analysis Area Assignment

Note: Map not included here. See Forest Plan hardcopy.

FORPLAN worked with these aggregations of cells, analysis areas, to obtain the solution shown in Table D-5.

Table D-5 -- Analysis Area Acreage

Analysis Area 757

Note: Map not included here. See Forest Plan hardcopy.

This example is simple in that the solution is entirely a timber assignment. Thus, all cells from CAs going to these three AAs are assigned to timber management. If the analysis areas had involved some other resource assignment, a decision would be made as to how to split it up among the many cells.

As shown in Table D-5, 774 acres are harvested in the first decade in analysis area 757. As shown in Table D-6, no acres of this harvest are coming from CA-413401 cells that are in this analysis area, a decision made in the disaggregation. One could leave things at this level and say Table D-6 presents the management direction needed. For capability area 413401, it is entirely timber management.

Table D-6 -- Spatial Fitting Summary

Note: Map not included here. See Forest Plan hardcopy.

For other CAs, we could see different combinations of management emphases.

This is the result of overlaying functional inventories, e.g. big game winter range, with the CAs. Since only part of a CA may be suitable for winter range habitat, both timber and wildlife management emphases could occur in the same CA. This example could also be applied to management emphases such a visuals, minimum level, riparian, and old growth.

However, to summarize management direction, it is possible to simply aggregate CAs with similar combinations of management emphases. This makes it easier to present management direction and activities.

It is possible to map down to the cell level; however, it is impractical, especially since they represent photo-interpreted stands. As they are replaced by on-the-ground stands and the District's stand record systems have a tie to capability areas, mapping to this level may be considered.

These aggregations of capability areas with the same combinations of management emphasis and other stratification, such as fisheries objectives, provide units that are easy to map, summarize direction and activities by, and monitor by management areas.

For District use, the Forest anticipates working at the level represented by Table D-6, which is the same level used for disaggregation and spatial fitting.

The information from Table D-6 has been loaded into a data base (FP17E) to make possible summaries by Districts. Table D-7 represents a basic summary of this type, sorted by CA. This information, along with Tables D-8 and D-9 (from data base FP17C), should provide the basis for implementing the Forest Plan.

Table D-7 -- Management Area Report

Note: Map not included here. See Forest Plan hardcopy.

Additional information can be generated from the two data bases mentioned, FP17C and FP17E. Tables D-8 and D-9 are examples of two standard reports already provided to the Districts. Changes in the information contained in the two data bases will occur over time. Changes in FP17E will represent any differences in allocation and scheduling that will result as the Plan is implemented. These changes will be made through the environmental evaluation process associated with proposed projects.

Changes in FP17C will represent differences in basic land characteristics and attributes. These changes can only be made through the approved inventory process for each resource.

Both types of changes will be monitored and evaluated in terms of the decision flow diagram associated with the monitoring plan.

Table D-8 -- Compartment Report

Note: Map not included here. See Forest Plan hardcopy.

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Table D-9 -- Watershed Disaggregation Report

Note: Map not included here. See Forest Plan hardcopy.

Appendix E

LAND CLASSIFICATION SUMMARY

To meet the objectives of this Forest Plan, 184,808 acres of tentatively suitable lands are not appropriate for timber production. Of this, 145,274 acres have been identified as having high values for anadromous fishery habitat, dispersed recreation or big game habitat. Area development and road construction associated with timber production produce sediment and vehicular and human disturbance that are inconsistent with the objectives of the proposed land uses on these areas.

A summary of the land classification for the Forest is shown in Table E-1.

Table E-1 -- Land Classification, Nez Perce National Forest

Classification	Acres
1. Nonforest land (includes water)	245,323
2. Forest land	1,972,717
3. Forest land withdrawn from timber production	740,466
3a. Hells Canyon NRA 1/ (administered by Wallowa-Whitman NF, R-6)	82,931
4. Forest land not capable of producing crops of industrial wood	0
5. Forest land physically unsuitable: irreversible damage likely to occur or not restockable within 5 years	0
6. Forest Land - inadequate information 2/	78,906
7. Tentatively suitable forest land (item 2 minus items 3, 3a, 4, 5, and 6)	1,070,414
8. Forest land not appropriate for timber production 3/:	
• Fisheries-Water Quality, Wildlife and Dispersed Rec.	97,894
• Minimum Level?4?	60,851
• Total	158,745
9. Unsuitable forest land (item 3, 3a, 4, 5, 6, and 8)	1,061,048
10. Total suitable forest land (item 2 minus item 9)	911,669
11. Total national forest land (items 1 and 2)	2,218,040

1/ Acres shown include forest and non-forest, see Wallowa-Whitman NF Plan for detailed breakdown.

2/ Lands for which current information is inadequate to project responses to timber management. Usually applies to low site lands.

3/ Lands identified as not appropriate for timber production due to: (a) assignment to other resource uses to meet Forest Plan objectives; (b) management requirements, and (c) not being cost efficient in meeting Forest Plan objectives over the planning horizon.

4/ Suitability decision deferred for 60,851 acres in first decade in East Meadow Creek. An opporunity exists to add these acres to the suitable base if there are significant changes in market conditions. Any change will require public involvement and an amendment to the Forest Plan.

Appendix F

VEGETATION MANAGEMENT PRACTICES

All vegetative management practices on forested lands will be preceded by a silvicultural examination, an on-the-ground analysis of the area, and a site-specific prescription written or reviewed by a certified silviculturist. The prescription process considers direction and objectives set forth in this appendix, Chapters II and III, site-specific factors, and a review of the applicable technical and scientific literature, as well as practical experience. The prescription will detail the actual vegetative manipulation to be implemented on a case-by-case basis. The standards for all silvicultural systems in the Northern Regional Guide will also be used in determining the silvicultural system to be implemented.

The silvicultural prescription process is a concurrent activity with the interdisciplinary team process in preparing projects. Prescriptions are formulated within Forest Plan guidance to achieve specific objectives of management areas. The full range of silvicultural systems (individual tree selection to clearcut) are available for use on the Nez Perce National Forest. The selected vegetative management practices for individual sites will comply with management requirements listed in 36 CFR 219.27(b).

Refer to Chapters II and IV of the Final EIS for complete discussions of silvicultural systems and environmental effects.

Clearcutting

Clearcutting, as a silvicultural system, will be employed to harvest timber under this plan. This method is selected on the basis of physical and biological site factors, and existing timber types, as well as overall economics. Clearcutting will be selected only when it is determined to be the optimal silvicultural system.

Clearcutting allows considerable flexibility in determining the character and composition of future timber stands. The species, degree of stocking, etc. can be controlled with various silvicultural techniques. This is especially useful in situations where existing stands are occupied by less valuable and undesirable species, or the current species composition is at high risk for losses due to insects or disease.

The clearcutting method, in general, is the most economical harvest system to employ. Since all merchantable timber is removed, the volume and value per acre treated and accessed is maximized.

Fuels treatment and subsequent silvicultural treatments are also less costly than with other systems, since there is a residual stand to be protected.

Clearcutting can be detrimental if applied to sites where physical conditions will change to extremes of heat and cold if the forest cover is totally removed. In these cases, regeneration efforts can be difficult and costly. Clearcutting may also be the most effective harvest method to achieve the desired multiple-use objectives of a stand. An example is a big-game winter range where clearcutting is the most successful system for maximizing growth of suitable browse vegetation.

Following are general descriptions of sites and situations when clearcutting may be selected as the optimal harvesting method. Not all possible sites and situations are listed, however, since site-specific, on-the-ground analysis may identify situations where clearcutting may be the optimal method, and conditions do not meet those in the following descriptions. It is also probable that clearcutting may not be the optimal method for all the lands that fit these broad descriptions.

1. The moisture and temperature regimes of the site, following clearing, will be favorable for regenerating the desired species. In general, north and east aspects fit this category but conditions can vary by geographic location.
2. The existing stand is stocked with species that are not desired in the regenerated stand because of disease or insect susceptibility, or the physiological condition of the existing overstory is such that natural regeneration is unlikely to occur.
3. The change in forested appearance created by the harvest opening does not conflict with objectives for visual management.
4. Management objectives for the area can be better achieved by clearing all of the trees in one operation (e.g., increasing browse and forage for wildlife or livestock).

Clearcutting is most likely to be prescribed for habitat types in the western red cedar (Thuja plicata) series, on the cool / moist habitat types of the grand fir (Abies grandis), and the subalpine fir (Abies lasiocarpa) series. It will also be the predominant silvicultural system for regenerating lodgepole pine stands. Examples of these habitat types include:

Western red cedar / queencup beadlily (Thuja plicata / Clintonia uniflora)
Grand fir / queencup beadlily (Abies grandis / Clintonia uniflora)
Grand fir / twinflower (Abies grandis / Linnaea borealis)
Subalpine fir / queencup beadlily (Abies lasiocarpa / Clintonia uniflora)

Shelterwood

The shelterwood silvicultural system will also be used to harvest timber under this plan. In a shelterwood system, the basic objective is to have the second crop of trees started on a site before all of the standing timber is removed.

Shelterwood systems are used in situations where the physical site conditions created by clearcutting would be too harsh for tree regeneration or would not be favorable to the establishment and growth of the desired species. The residual stand provides protection from temperature extremes on the site and modifies the climatic factors in general. The shelterwood system also offers the opportunity to reduce regeneration costs, if factors are suitable for establishing natural regeneration from the seed source provided by the residual stand.

Shelterwood systems can also be the most effective means of achieving multiple-use objectives in some instances. One example is those cases where visual quality objectives are retention or partial retention. In many cases the larger, more commercially valuable trees are left standing after the initial harvest entry. This reduces the volume and value per acre removed in the initial harvest entry, thereby increasing the unit costs of access and harvesting in many cases.

Once regeneration is established, removal of the residual stand requires careful harvest planning and implementation to protect the new crop of trees.

Following is a list of general factors that will be considered when determining whether or not the shelterwood system will be applied to a specific site. A site-specific silvicultural prescription may consider additional factors and timber sale conditions.

1. The existing stand is stocked with species that are desired in the regenerated stand and the physiological condition of the trees is such that seed production and successful regeneration are likely to occur.
2. The moisture regimes and temperatures on the site are such that without some shading and cover, conditions will become too harsh for tree regeneration. South and west aspects generally fit into this category, but conditions can vary by location.
3. Management objectives for the area can best be achieved by maintaining some tree cover on the site until regeneration is established.

Shelterwood harvesting is most likely to be prescribed on the warmer / drier habitat types of the grand fir series and the Douglas-fir habitat types. Some examples of these habitat types include:

Douglas-fir / common snowberry (Pseudotusga menziesii / symphoricarpos albus)
Douglas-fir / ninebark (Pseudotusga menziesii / Physocarpus malvaceus)
Grand fir / ninebark (Abies grandis / Physocarpus malvaceus)

In prescribing shelterwood harvest methods, consideration will be given to future harvests required. The feasibility of removing the residual overstory from an established stand of seedlings, effectiveness of site preparation / slash treatment, and options such as artificial shading shall be considered when prescribing shelterwood harvests.

Selection Harvests

Individual tree and group selection harvest methods may be applicable to certain combinations of timber management and other resource objectives identified by the land assignments in this Plan. The most probable situations for implementing these silvicultural systems would be in riparian areas and in areas with visual quality objectives of retention or partial retention. Selection harvest methods should be evaluated when harvesting is scheduled in areas with these resource objectives.

The existing timber types, stand conditions, and site characteristics are also critical factors that will be evaluated when considering the applicability of uneven-aged systems. Stands with high percentages of low vigor trees with little seed-producing potential and species highly susceptible to disease and insect damage are examples of situations where uneven-aged management may not meet overall objectives.

Intermediate Harvests

Intermediate harvests such as commercial thinnings will generally be prescribed only in stands that have not reached the culmination of mean annual increment. Salvage or sanitation harvests may be considered as intermediate treatments in stands that have already culminated in growth, but cannot be harvested and regenerated because of multiple use constraints on scheduling (maintaining wildlife cover). This treatment may be considered in lodgepole pine stands that are considered high risk for mountain pine beetle infestation.

Timber Stand Improvement

Precommercial thinning, clearing, and weeding treatments will be used on sapling-sized stands where stocking exceeds the level necessary to meet the future stand objectives. Thinnings will be designed to promote stand diversity, while maintaining stand growth and yield projections at levels prescribed in the management prescriptions.

Reforestation

All cutover sites will be planned for regeneration. Hand planting will generally be prescribed for areas that have been clearcut. Hand planting may also be prescribed in shelterwood units when natural regeneration is unlikely or expected to be inadequate to meet required stocking levels, or species change is needed. Natural regeneration may be prescribed, primarily in shelterwood units where regeneration is likely to occur within 5 years.

Appendix G

TIMBER PRODUCTIVITY CLASSIFICATION

Table G-1 -- Timber Productivity Classification

Potential Growth (cubic ft / ac / yr)	Suitable Lands (acres)	Unsuitable Lands 2/ (acres)
Less than 20	0	128,882
20-49	65,586	213,604
50-84	196,702	249,671
85-119	372,030	284,898
120-164	277,369	183,993
165-224	0	0
225+	0	0
Total =	911,669	1,061,048

1/ Based on the potential biological growth of natural stands, with no consideration given to stocking control or other intensive management practices.

2/ Where data is not available (e.g. wilderness), productivity is estimated.

Appendix H

ALLOWABLE SALE QUANTITY AND LONG-TERM SUSTAINED YIELD CAPACITY

Figure H-1 -- Allowable Sale Quantity and Long-Term Sustained Yield Capacity (Million Cubic Feet)

Note: Figure not included here. See Forest Plan hardcopy.

Figure H-2 -- Allowable Sale Quantity and Long-Term Sustained Yield Capacity (Million Board Feet)

Note: Figure not included here. See Forest Plan hardcopy.

Appendix I

PRESENT (1980) AND FUTURE (2135) FOREST CONDITIONS

Table I-1 -- Present (1980) and Future (2135) Growing Stock

	Unit of Measure	Suitable Land	Unsuitable Land 1/
Present Forest	MMCF	4,575.8	971.2
Live cull 2/	MMCF	298.5	41.5
Salvable Dead 2/	MMCF	2.3	0.4
Annual Net Growth	MMCF	25.86	3.98
Annual mortality	MMCF	5.99	.93
Future Forest			
Growing stock	MMCF	2,165.0	
Annual net growth	MMCF	32.67	

1/ Excludes existing classified areas.

2/ Data from FINSYS, source 1973 timber inventory.

For age class distribution tables, see Table I-3.

Table I-2 -- Rotation Age by Management Emphasis and Productivity Class

Management Emphasis	Rotation Age in Years
Timber	
Productivity Class 3	110 to 140
Productivity Class 4	80 to 110
Productivity Class 5/6	120 to 150
Wildlife Winter Range	
Productivity Class 3	170 to 200
Productivity Class 4	140 to 170
Productivity Class 5/6	140 to 170
Visual Management	
Productivity Class 3	150 to 180
Productivity Class 4	120 to 150
Productivity Class 5/6	120 to 150

Table I-3 -- Present (1980) and Future (2135) Age Class Distribution For Suitable Lands (Acres)

Age Class	Present Forest 1/	Future Forest 1/
0 - 10	21,853	142
11 - 20	10,348	96,354
21 - 30	28,063	86,818
31 - 40	0 2/	105,015
41 - 50	0 2/	85,298
51 - 60	22,291	65,998
61 - 70	82,021	64,115
71 - 80	896	76,703
81 - 90	0	45,675
91 - 100	2,902	59,653
101 - 110	3,078	31,989
111 - 120	25,073	26,052
121 - 130	226,527	24,576
131 - 140	398,863	16,514
141 - 150	72,989	16,150
151 - 160	16,464	23,886
161 - 170	301	2,854
171 - 180	0	8,642
181 - 190	0	0
191 - 200	0	0
201 - 210	0	1,385
211 - 220	0	24,768
221 - 230	0	133
231 - 240	0	0
241 - 250	0	336
251 - 260	0	371
261 - 270	0	1,382
271 - 280	0	26,426
281 - 290	0	81,002
291 - 300	0	13,747
301 - 310	0	255
311 - 320	0	11

1/ Acres with regeneration harvest of shelterwood system done, but overstory remaining are not included in the acres shown.

2/ Inventory data collapsed for young age classes. Acres for these age classes included in 11 - 20 and 41 - 50 classes.

Figure I-1 graphically displays how the age class distribution of the timber will change over time under this Forest Plan. The peaks on the right side of the graph represent the acres of mature and overmature timber on the suitable lands. Over a 150-year period, these peaks disappear as the stands are harvested and reforested.

The two gaps or "valleys" in the figure are the result of a computer program error and do not reflect the inventory acres for those time periods.

Figure I-1 -- Age Class Distribution
Acres By Age Class Over The Planning Horizon

Note: Figure not included here. See Forest Plan hardcopy.

Appendix J

ACTIVITY SCHEDULES

This appendix contains activity schedules for various resources and activities. Projects will be added to these activity schedules periodically as they are identified during the continuous project planning process; projects may also be deferred or modified if problems are identified during project level environmental analysis.

Listed below are the activity schedules included:

Activity Schedule J-1

Forest Plan Implementation Schedule

This is a Forest Plan implementation schedule and not a decision in the Forest Plan. It provides public information as required by Forest Service Manual 1922.5. This schedule is subject to updates based upon budget, market, or other considerations. The public will be notified, at least annually, of changes to this implementation schedule.

A minimum of 3 years of projects are listed on the schedule. This example includes timber sales and associated roads. When Forest Plans are implemented, all project activities will be included.

Note: The tables listed above not included here. See Forest Plan hardcopy.

Appendix K

PROJECTED BUDGET

Table K-1 -- Average Annual Cost Required to Implement the Forest Plan By Activity, Decade 1 (Thousands of Dollars)?

Functional Item	Activity	FY 1986 Dollars 1/
00	General Administration	1,762.0
01,02	Fire and Fuels	1,294.0
03-05	Timber	1,983.0
06,07	Range	230.0
08	Minerals	302.0
09	Recreation	801.0
10	Wildlife and Fish	839.0
11	Soil, Air and Water	477.0
12	Facility Maintenance	199.0
13-15,42,43	Lands	341.0
16	Landline Location	150.0
17	Road Maintenance	640.0
18	Trail Maintenance	500.0
19	Co-op Law Enforcement	55.0
20	Reforestation-Appropriated	514.0
21	TSI - Appropriated	65.0
23	Tree Improvement	45.0
25	SCSEP	45.0
26-28	KV (Trust Fund)	1,623.0
29	CWFS-Other (Trust Fund)	175.0
30	Timber Salv. Sales (Perm. Fund)	83.0
31	Brush Disposal (Perm. Fund)	413.0
32	Range Improvement	18.0
33	Recreation Construction	125.0
34	Facility Construction - FA&O	133.0
35	Engineering Construction Support	1,668.0
36	Const.-Capital	2,475.0
37	Trail Construction/Reconstruction	200.0
38	Timber Purchaser Road Construction	3,774.0
	Total =	20,929.0

1/ The costs shown were derived from the estimated costs of Alternative G in the Forest Plan EIS. They were updated to 1986 dollars to cover estimated costs for current programs and additional costs to meet the goals and objectives of the Forest Plan.

Appendix L

DOCUMENTS AVAILABLE UPON REQUEST

The following documents give more detailed direction for specific areas of the Nez Perce National Forest or provide more specific standards for certain management practices. Each document is listed along with where a copy can be obtained.

Document	Available from
Management Standards Salmon Wild and Scenic River	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
Management Standards Middle Fork of the Clearwater Including the Lochsa and Selway	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
Management Standards Hells Canyon National Recreation Area	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
Management Standards Gospel-Hump Wilderness	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
Selway-Bitterroot Wilderness General Management Direction, as amended in 1992 *this text reflects changes made under Amend #16*	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
Management Standards Frank Church-River of No Return Wilderness (as amended, May 8,1991) *this text added as part of Amend #15*	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
Also see changes in the Frank Church-River of No Return Wilderness Management Plan, which brings Forest Plans into compliance with a court order addressing Outfitter and Guide operations in the wilderness. *this text added as part of amend #18*	
Establishment Report - O'Hara Research Natural Area	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
Establishment Report - Moose Meadows Research Natural Area	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
Management Standards Selway River	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
Selway-Bitterroot Wilderness Fire Management Plan	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530

Document	Available from
Management Standards Papoose Cave	District Ranger Salmon River Ranger District HC01 Box 70 Whitebird, ID 83554
Idaho Forest Practices Rules	Idaho Department of Lands Division of Forest Resources P.O. Box 670 Coeur d'Alene, ID 83814
Best Management Practices For Road Activities	Idaho Department of Health and Welfare Division of Environment 450 West State Street Boise, ID 83720
Rules and Regulations and Minimum Standards For Stream Channel Alterations	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530
A Report on Idaho's Timber Supply:	Forest Supervisor Nez Perce National Forest Route 2, Box 475 Grangeville, ID 83530

APPENDIX M

LAND WITHDRAWALS

The areas currently withdrawn from mineral entry on the Nez Perce National Forest are shown in Table M-1. All of these withdrawals will be reviewed by 1988.

Criteria used to evaluate each withdrawal are as follows:

1. The land is being used for the purpose for which it was withdrawn.

2. Potential mineral exploration, development, or production poses a serious risk to a unique and valuable resource or to a major capital improvement.

3. There is no other way to protect the resource or improvement. Possible alternate methods include mitigation measures in operating plans, reclamation bonding, and no surface occupancy stipulations in lease applications.

4. The land has more value for the purpose for which it was withdrawn than it does for potential mineral production.

Table M-1 -- Existing Mineral Withdrawals, Nez Perce National Forest

Note: Table M-1 is not included here. See Forest Plan hardcopy.

APPENDIX N

OLD GROWTH AND SNAG MANAGEMENT STANDARDS

The National Forest Management Act of 1976 states that Forests are to "provide for a diversity of plant and animal communities" and requires that National Forests "maintain viable populations of all existing native vertebrate species." In order to comply with these regulations with regard to old-growth and snag-dependent species, the following standards were developed for implementation on the Nez Perce National Forest. These standards are based on the most current literature and may change as new information becomes available.

A. Old Growth Management Standards

"Forested acres" in this document refers to land that is capable of producing an old-growth stand, as defined below. This generally applies to land in productivity classes 3, 4, and 5.

Old-growth habitat is defined as a community of forest vegetation which has reached a late stage of plant succession characterized by a diverse stand structure and composition along with a significant showing of decadence. The stand structure will have multi-storied crown heights and variable crown densities. There is a variety of tree sizes and ages ranging from small groups of seedlings and saplings to trees of large diameters exhibiting a wide range of defect and breakage both live and dead, standing and down. The time it takes for a forest stand to develop into old-growth condition depends on many local variables such as forest type, habitat type, and climate. Natural chance events involving forces of nature such as weather, insect, disease, fire, and the actions of man also affect the rate of development of old-growth stand conditions.

Old-growth stand refers to a stand of timber that, generally, meets the following criteria:

1. At least 15 trees per acre ?>? 21 inches diameter at breast height (DBH). Providing trees of this size in the lodgepole pine and sub-alpine fir stands may not be possible.

2. Two or more canopy layers.

3. At least .5 snags per acre ?>? 21 inches DBH and at least 40 feet tall.

4. Signs of rot and decadence present.

5. Overstory canopy closure of 10-40 percent; understory canopy closure of at least 40 percent; total canopy closure at least 70 percent.

6. Logs on the ground.

Replacement old-growth stand refers to a timber stand that will meet old-growth criteria within 100 years.

Old-growth indicator species are those species of wildlife that are dependent on or that find optimum habitat in old-growth stands for at least part of their life cycle. It is assumed that if the requirements of these species are met, the requirements of other old-growth associated species will be satisfied. For the Nez Perce National Forest the primary indicator species are pileated woodpecker, goshawk, and fisher. Pine martin is considered a secondary indicator species because it inhabits both mature and old-growth stands.

1. Minimum Requirements for Amount and Distribution of Old Growth

Current information indicates that, in order to maintain a viable population of old-growth-dependent species, it is necessary to maintain 10 percent of the total forested acres as old growth with no less than 5 percent of the forested acres maintained as old growth within each prescription watershed or combination of watersheds totalling 5,000 to 10,000 acres. If less than 5 percent old growth exists in a drainage, the additional required acres will be assigned to adjacent drainages where excess old growth is available.

An additional 5 percent of the forested acres within each prescription watershed shall be designated as replacement old growth.

2. Identification and Designation of Old-Growth Stands

Old-growth stands will be identified through the use of stand exam information, aerial photos, and field reconnaissance. Stands will be prioritized on the basis of how many of the six criteria listed under "Definitions" are met, size of stand, presence of roads, age class of surrounding timber (e.g. clear cut vs. mature) and known or suspected use by the old-growth indicator species. All stands will be inventoried and prioritized with highest priority for inventory in those drainages with proposed timber sales or other activities that could adversely impact old growth.

Where available, stands should be at least 300 acres. Next best would be a core block of 150 acres with the remaining blocks of no less than 50 acres and no more than 1/2 mile away. If existing old-growth blocks are less than 100 acres, the stands between the old-growth blocks should be designated old-growth replacement. The entire unit consisting of old-growth blocks and replacement old growth should be managed as an old-growth complex. If the old-growth component is less than 50 percent of the complex, the complex should be considered replacement old growth. Within the old-growth complex, only the stands that meet old-growth criteria will be counted toward meeting the allocation for existing old growth. The replacement stands will be counted toward meeting the allocation for replacement old growth.

Ideally the perimeter to area ratio of old-growth blocks should be minimized. Linear strips at least 300 feet wide along streams are acceptable if more suitable sites are not available.

Where possible, roads should not be located through or adjacent to old-growth stands in order to reduce human disturbance, loss of snags to firewood cutters, windthrow, and micro-climate changes.

Where only 5 percent or less old growth exists in a drainage, all suitable old- growth stands should be managed as old growth. Where more than 5 percent exists, stands should be selected for old-growth management based on their priority ranking, with highest priority stands selected first and in consideration of other resource needs.

To increase the probability of species immigration and colonization of old- growth islands and to facilitate genetic interchange between isolated population demes, a system of corridors interconnecting old-growth islands is required. Because of Forest direction to manage riparian areas to enhance riparian-dependent species and because the dendritic pattern of stream-side riparian zones readily facilitates connecting old-growth islands, riparian zones will serve as the principal means to provide interconnecting corridors. Corridors should be extensions of closed or nearly closed canopy of forest of sufficient width to resist blow-down.

Verify the quality, amount, and distribution of existing and replacement old- growth habitat as part of project planning.

B. Snag Management Standards?

The Forestwide goal is to manage riparian areas to support 80 percent of maximum populations of snag-dependent species and all other areas to support 60 percent of maximum populations of snag-dependent species. This goal requires that we provide 1.8 snags per acre in riparian areas and 1.4 snags per acre in all other areas with 1 snag per 10 acres greater than 20 inches DBH and the rest greater than 12 inches DBH. Providing snags of this size in lodgepole pine stands may not be possible. If not, the largest diameter size available will be provided. Because of loss due to windthrow or other causes, 5 green trees per acre must be designated in order to maintain 1.8 snags per acre in riparian areas through time and 4 green trees per acre must be designated in order to maintain 1.4 snags per acre in all other areas. Of these trees, at least one should be greater than 20 inches DBH and the remainder greater than 12 inches DBH. Wind firm trees, at least 40 feet tall with broken tops, are preferred.

Location of clumps and individual leave trees should consider:

1. Safety.
2. Resistance to windfall.
3. Efficient logging operation.
4. Ease of slash treatment.
5. Protection from firewood cutters.

Larch and ponderosa pine are the preferred species. Measures needed to protect existing snags and replacement trees in cutting units will be identified as part of project planning.

It is not necessary to meet these standards on every acre. Leave trees should be grouped into 1-2 acre clumps distributed throughout cutting units. Strive to retain the desired number of trees on a 100-acre basis.

In addition to retaining replacement trees, non-merchantable snags in addition to the snags needed to meet snag management objectives should be left standing wherever possible. In order to comply with OSHA safety standards, snags that are safety or operational hazards will be removed.

Verify the quality, amount, and distribution of snags within project area boundaries during project planning.

Appendix O

FOREST PLAN MONITORING REQUIREMENTS

This appendix contains more specifics on the Forest Plan monitoring requirements listed in Table V-1.

ITEM: 1a

One aspect of monitoring recreation demand on the Forest is a comparison of actual recreation use with Forest Plan projected use.

Projected use in the Forest Plan was determined by applying the Pacific Northwest River Basin Commission growth rates to 1979 Recreation Information Management (RIM) data.

Actual use is annually determined by each District based on one or more of the following methods: (1) statistical sampling methods; (2) other sampling methods, e.g. visitor permits; (3) estimates from actual count and / or length of stay data, e.g. resort occupancy counts; (4) estimates from reliable traffic count systems, trail counters, visitor registration systems, or other calculation techniques; and (5) simple observations, comparisons, or estimates by field personnel.

An important source of information for monitoring recreation supply and demand is RIM records. This computerized record keeping system stores recreation data in four reports: a Basic Address, a Facility-Condition Inventory, a Directory, and a Recreation Use Report. Information in these reports includes location, description, condition, cost, and use of lands, waters, and improvements which comprise the National Forest recreation resource. Information in each of the RIM records is updated annually by each District.

The RIM records allow many kinds of recreation information to be easily measured by running computer reports. This summarized data can be reviewed and analyzed by District and Forest personnel to see if direction and standards in the Forest Plan are being met.

RIM reports are currently being done so no additional costs will be required to gather this data. The accuracy of the RIM data is high in some reports, but low in the Recreation Use Report, in part, because methods of collecting use data vary in their reliability and consistency across the Forest. Actual recreation use will be evaluated against projected use.

ITEM: 1b

One aspect of monitoring loss of recreation opportunities through land- disturbing activities is a review of the range of recreation opportunities offered by the Forest.

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

Important sources of information for monitoring loss of recreation opportunities are ROS maps and RIM reports. The maps display the ROS class for each acre of Forest land. The RIM records store

recreation data, including acres of land by ROS class, amount of use by ROS class, and kinds of recreation activities by ROS class. Information on the ROS maps should be updated continuously as management activities change ROS classification or new information is gathered. Information in each RIM report is updated annually by each District.

Changes in acres in each ROS class can be reviewed and analyzed by District and Forest personnel to see (1) if direction in the Plan for a full array of recreation opportunities is being met and (2) if the semiprimitive classes are being lost more quickly than specified in the Plan.

Public comments and field observation will also alert us when on-the-ground implementation does not correlate with direction in the Plan.

ROS maps have not been updated since 1979. The accuracy of the ROS maps is low because much of the 1979 inventory is no longer valid. RIM reports are currently being done, so no additional costs will be required to gather this data. The accuracy of the RIM data is low because methods of collecting use data and application of the ROS system vary in their reliability and consistency across the Forest.

Actual acres of Forest land in each ROS class will be evaluated against acres of each ROS class called for in the Plan.

ITEMS: 1c and 10

Counts on big-game winter ranges will be used to establish population trends. Approximately half of the big-game winter ranges will be surveyed annually. Trend data will be furnished by the Idaho Department of Fish and Game.

Tracking of forage production forestwide will be done by annual evaluation of accomplished forage producing actions including timber harvest, prescription burns, and wildfires. Trends in production based on 5 years of data will be the measure, rather than annual production. *this text reflects changes made under Amend #8*

One-half of all areas on which land-disturbing activities are occurring will be evaluated annually. Land-disturbing activities are activities such as road construction, timber harvest, and mining. "Guidelines for Evaluating and Managing Summer Elk Habitat in Northern Idaho" will be used as a tool to evaluate whether or not objectives are being met.

All land-disturbing activities occurring within inventoried moose winter range (grand fir / Pacific yew) will be reviewed each year to ensure that activities are within the prescriptions designed to perpetuate Pacific Yew communities. This will require an interdisciplinary review by wildlife biologists, silviculturists, and timber specialists. No more than 5 percent of the inventoried winter range will be permitted to be outside of prescription.

Approximately 60,000 acres of moose winter range (grand fir / Pacific yew) are thought to exist on the Forest. Although their locations are mapped, the acreage has not been verified. If at any time the acreage that has been verified as winter range exceeds 66,000 acres or falls below 54,000 acres, the assignment for moose winter range will be reviewed.

ITEMS: 1d and 10

All new timber sale and road construction activities will be reviewed during the environmental assessment process and during preparation layout to ensure that old-growth habitat and habitat for threatened and endangered species are not degraded. All active timber sales will be reviewed midway through the sale or near its completion to assess compliance with snag management guidelines. Reviews will be conducted by an interdisciplinary team consisting of at least a wildlife biologist, silviculturist, and timber specialist. Habitat-suitability index models will be used as they become available.

Population data will be collected annually. Pileated woodpecker population trends will be evaluated using an index of relative abundance. An attempt to obtain indices to furbearer populations (fisher, marten) will be made by establishing track-transects or scent-post lines. Population monitoring of goshawks, pine martin, and fishers will be done using active nest monitoring and track counts. *this text reflects changes made under Amend #8*

Paragraph added here, see Amend #7

ITEM: 1e

All habitat improvement accomplishments, such as burning on winter range, will be reviewed annually to assess whether or not planned accomplishments are carried out.

Two Paragraphs added here, see Amend #7

ITEM: 1f

Direct habitat improvements and the maintenance of existing improvement measures are key elements in meeting fish habitat production goals for the Forest. The fish / water quality objectives in Appendix A of this Plan indicate that several drainages are currently below their desired objective. This monitoring effort is designed to ensure that the direct habitat improvements scheduled for these streams are accomplished and the habitat is improved to the stated objective.

The single, most important source of information to monitor progress in this element is the annual budget. Allowable variation in this element would be +/- 10 percent of scheduled improvement dollars / targets. If the annual budget for direct habitat improvement and maintenance falls outside of these bounds, considering all sources of funding, the program would be further evaluated and the necessary adjustments in Forest outputs will be made.

Additional sources of information on this element are quarterly attainment reports, which will be monitored to ensure projects are being completed in a timely manner. Quality of work will be monitored through field review of projects to ensure that state-of-the-art habitat improvement techniques are being employed. Project funds will be used to monitor improvement measures to ensure that fish populations are responding as expected.

ITEM: 1g and 11 *this text reflects heading change by Amend #11*

Grazing outputs are the amount that livestock graze the Forest annually, and are measured in Animal Unit Months (AUMs). In the field, livestock numbers are counted annually as they enter the Forest. These livestock numbers are entered into a range data base called FSRAMIS. The Annual Grazing Statistical Report summarizes this information by district and forest. This report will be used to monitor range outputs in the Forest Plan.

Two Paragraphs added here, see Amend #11

ITEM: 1h

The amount of timber volume that is offered for sale, the volume sold, and the volume harvested will be monitored during the implementation of the Forest Plan. The Forest Service has an established reporting system for these timber outputs and the information is aggregated upward from the Forest level to the Regional Office, and finally to the Washington Office or national level. These outputs are generally reported annually by fiscal year (October to September), although a quarterly reporting schedule allows the data to be analyzed by various time periods.

The accuracy and reliability of these data are high since they are readily measurable and reporting standards are common to the entire agency. Due to fluctuations in timber markets, weather conditions, and other external factors that influence the amounts of timber purchased and harvested, the annual figures of these timber outputs may vary considerably. Because of this, comparisons of actual outputs to the predictions in the Forest Plan will focus primarily on 3- to 5-year averages of observed timber outputs. These averages will then be compared to the predicted timber harvest figures. If the volume sold as regulated timber on suitable lands exceeds the allowable sale quantity (ASQ) identified in the Plan, either an amendment or revision to the Forest Plan will be necessary.

ITEM: 1i

In addition to the volume of timber that is harvested from the Forest during the plan implementation, the number of acres from which this harvest occurs is also an important monitoring item. The number of acres impacted is one of the aspects of timber harvesting that determines the effects it has on other resources. There is a reporting system currently in use by the Forest to maintain an on-going inventory of acres harvested by year. The reporting system also records the type of harvest system used, the productivity class of the stand, types of slash treatments, and many other site-specific characteristics. This information is recorded and stored in a computerized data base system. This system is described further under some of the following monitoring items.

The accuracy and reliability of this data is high since it is readily measurable, there are written standards for reporting, and periodic checks are made at the Forest and Regional levels to check for accuracy and timeliness of of reporting by the Districts. Due to the nature of the timber yield tables used in developing the Forest Plan, which averaged yields over a broad range of stand conditions, the number of acres harvested in any single year may deviate significantly from the acres predicted in the Plan.

ITEMS: 1j and 2h

The desired fish / water quality objectives listed in Appendix A of this Plan are not being met in some watersheds due to past disturbances. Soil and water improvement projects are one means of upgrading watershed conditions to meet these objectives. Monitoring under this resource element is intended to establish whether improvement projects necessary to meet water quality objectives are being implemented and to assess effectiveness of these projects.

Annual budgets and management attainment reports will be used to determine if identified soil and water improvement needs are being accomplished. Field reviews will be used to determine the effectiveness of selected improvement projects. No additional costs to the existing monitoring program are anticipated. Results of monitoring will be summarized and distributed as needed. Results will be evaluated and used to make adjustments in the improvement program or other resource outputs if necessary.

ITEM: 1k

The purpose for monitoring the number of wildfires and comparing to 10-year averages is to assess the Forest wildland fire program. Specific items to be monitored are storm patterns and number of fires (lightning and person- caused). To annually analyze the information will aid in establishing trends, thereby allowing the Forest to plan its prevention, presuppression, and suppression strategies. More specifically, these analyses will aid in providing the proper initial attack and prevention resources at the most strategic location possible. Current fire records, specifically, individual fire reports, are the source of information. These reports contain the necessary information to monitor the number of wildfires. An individual fire report is completed for each fire.

Two Paragraphs added here, see Amend #11

ITEM: 2a

One aspect of monitoring recreation activities on the Forest is an evaluation of the impacts of off-road vehicle (ORV) use. Examples of specific items to be monitored are level and type of ORV use, accidents, incidents of vandalism, visual changes, soil loss or damage, vegetation removal or damage, factors which affect wildlife habitat and location, condition of cultural resources, and user conflicts.

An important source of information for monitoring the impacts of ORV use is the ORV Monitoring Plan. This monitoring plan set up a process for observing and documenting ORV impacts. The overall function of the plan is to provide information to determine when and how management should occur. The process consists of:

(1) Determining areas, trails, uses, and critical resources which could require intensive monitoring;
(2) Identifying degree of problem;
(3) Establishing benchmark conditions, applicable resource standards, and extent of acceptable change;
(4) Determining appropriate monitoring levels and methods; and
(5) Recording monitoring on appropriate forms, photographs, and transects.

The information from the monitoring efforts plus public comments and field observations can be reviewed and analyzed by District and Forest interdisciplinary (ID) teams to see if direction and standards in the Forest Plan are being met.

The ORV Monitoring Plan was developed in 1979. Districts are already collecting the necessary information in various ways, so no additional costs will be required to gather data. The accuracy of the monitoring data is low because monitoring levels and methods vary in their reliability and consistency across the Forest.

Unacceptable results of ID team reviews will be analyzed to determine if specific changes should be made in management practices or levels of management activities, or if the Plan should be modified to reflect the observed conditions.

ITEM: 2b

There are numerous prehistoric and historic cultural resources located within the boundaries of the Nez Perce National Forest. Because of impacts caused by recreational activities and projects initiated by the Forest Service, a number of these resources will be threatened. For this reason, the Forest Service performs a field review of areas where impacts are occurring or are slated to occur, so that all

prehistoric and historic sites will be recorded and taken into account. Should significant sites be discovered during the reconnaissance, they will be mitigated by either avoiding them or collecting the data by standard archaeological practices. Any mitigation work will be done in consultation with the State Historic Preservation Officer and, if necessary, with other federal agencies responsible for historic preservation.

Cultural resource inventories are based on the Nez Perce National Forest's archaeological survey strategy. This strategy is a two-step approach, involving pre-field research and field inventories. First, various data sources are checked, including historic maps, photographs, documents, aerial photographs, occasional interviews with knowledgeable persons, environmental data, and the Forest's Site Atlas. The Site Atlas contains current information on the location of recorded sites on the Forest.

After the pre-field research has been completed, areas and topographic features within and close to the project's boundary are assigned an informal cultural resource potential of low, medium, or high. The intensity of the survey is tailored according to the assigned capabilities, recognizing that field conditions as encountered may alter the assigned potential.

The second step of the survey strategy involves field inventory. Field inventories are based partially upon the pre-field research, topography, and the size and configuration of the impact.

As a result of various human and natural impacts, significant prehistoric and historic sites on the Nez Perce National Forest are being damaged and, in some cases, even destroyed. While some of these impacts are caused by deliberate acts of vandalism, others are a result of recreation and Forest Service projects. Clearly, the effects these activities are having on sites needs to be monitored so that the Forest Service will have a better understanding about the rate of loss and how sites might be protected.

Information about the condition of a site or area will be generated through field studies, and emphasis will be placed on those sites and areas that are considered to be receiving more consistent and extensive impacts. Depending upon the type of site, area, or impact, monitoring may include annual or semi-annual visits, the use of photopoints, periodic drawings, measurements from a datum point, the collection of diagnostic artifacts with provenience data, and a written description of the site and its condition.

ITEM: 2c

One aspect of monitoring wilderness activities on the Forest is an analysis of management direction for wilderness.

Management direction for each of the three wildernesses on the Forest was developed by Forest and District personnel using the public involvement process, incorporated into wilderness management plans, and approved by the Regional Forester(s).

Sources of information for monitoring wilderness activities and practices include project work plans, EAs, and annual reports. These documents can be reviewed and analyzed by District and Forest personnel to see if direction and standards in the Forest Plan or wilderness plan are being met.

Public comments and field observation will also alert us when on-the-ground implementation does not correlate with direction in the plans.

Project work plans, EAs, and annual reports are currently being done so no additional costs will be required to gather this data. The accuracy of the data is moderate because of the size of the areas involved, remoteness, difficult access, and few field personnel funded to patrol the wildernesses yearlong.

When an activity in a wilderness does not meet specified direction, the activity will be analyzed to determine if specific changes should be made in management practices or levels of management activities or if the plan(s) should be modified to legitimize the activity.

Annual Reports, Host Action Plans, and Inform and Involve Plans will monitor and evaluate accomplishments made within service and out of service contacts.

Limits of Acceptable Change Action plans will be completed and monitored for accomplishment. Inventories will be completed on campsites to help monitor human use on the wilderness resource.

Paragraph added here, see Amend #16

ITEM: 2d

Monitoring effects on the visual resource will be determined using two basic techniques.

First, as VQO's are adopted during Forest Plan implementation the acreage of VQOs adopted forest-wide can be tracked and compared to the interim VQO acreages in the FEIS for the Forest Plan. The primary source of this information (acres / maps) will be the environmental documents prepared implementing various management practices. Maps of adopted VQO's will be compiled and updated continually. Trends will be evaluated every 5 years.

Interim VQO maps are on file in the Forest headquarters so no additional costs will be required to generate the data base. Accuracy of the mapped VQOs will continue to improve as implementation occurs across the Forest.

Second, visually sensitive projects will be monitored on-site. Monitoring of specific projects will be conducted on those projects each District selects annually for resource monitoring. The monitoring report for each project will state the project met or did not meet the adopted VQOs and why. If the project did not meet the adopted VQO's, the report will also state what mitigation measures would bring the project into compliance with the adopted VQOs and what could be done on future projects of similar nature to ensure VQO's are met. *this text reflects change made by Amend #4*

ITEM: 2e

The primary purpose of this activity is to monitor fish habitat objectives found in Appendix A of this Plan. Examples of habitat variable that could be monitored are: cobble embeddedness (a measure of summer and winter rearing habitat capacity), percent fines by depth (a measure of spawning habitat quality), and fish population density by age class (an indicator of habitat quality and adult escapement). Habitat variables will be monitored at specific locations (stations) throughout the Forest. Streams selected are considered "representative"" and information gathered will be extrapolated to the similar streams on the Forest. Stations and / or streams may be modified due to external or internal need. Habitat variables measured can and will change as technology and habitat relationships evolve. Streams presently assigned for monitoring are listed in Table O-1.

Frequency of Measurement

All monitoring watersheds will have sufficient baseline data (3 to 4 years per station) for all variables by the end of the first decade . All drainages that are to be developed will have baseline data prior to

development. Additional information will be gathered on each monitored stream through general fish habitat surveys. These surveys will be upgraded each decade. Monitoring activity will be scheduled to maximize dollars and need. Generally, priority watersheds will be monitored on an annual basis regardless of development activity.

Reporting Period

An annual report, containing full statistical analysis of the field findings will be completed each year and submitted to the Idaho Department of Health and Welfare and Idaho Department of Fish and Game. This report will also be available to the public upon request. Permanent transect locations will be mapped for each station and appended to this report.

Table O-1 -- Potential Fish Habitat Monitoring Stations/Streams 1/

Watershed No.	Indicator Species 2/	Name	Geology	Existing Condition	Comments
209-01-01	ST,CK	NF Whitebird 3/	Basalt	Developed	@ mouth
209-01-07	ST	SF Whitebird	Basalt	Developed	@ mouth
209-02-05	ST,CT	Little Slate 3/	Batholith	Developed	@ Gage station
209-02-01	ST,CT	NF Slate 3/	Batholith	Developed	@ mouth
305-01-01	CK,ST,CT	Johns Creek 3/	Belt/Bath.	Developed	@ Gage station
305-07-04	CK,ST,CT	North Meadow	Border	Developed	
305-04-05	ST,CT	Trail 3/ *Deleted by Amend #11*	Belt	Developed	Calibration
305-01-11	CK	Red River 3/	Belt	Developed	2 sta., Calib.
305-04-13	ST,CT	Trapper 3/	Belt	Developed	Calibration
305-04-15	ST,CK	SF/WF Red R. 3/*	Belt/Bath.	Dev/Prist	Paired, Calib.
207-03-05	CT	Upper Big Mallard Ck. *this text reflects Changes by Amend #11*	Batholith	Developed	Element 2sta
301-01-21	CK,ST,CT	Running 3/	Bath/Basalt	Pristine	Control
301-03-13	CK,ST,CT	Bear 3/	Batholith	Pristine	Control
302-01-21	ST	O'Hara	Belt	Developed	@ 2nd bridge
302-01-25	ST,CT	Gedney	Belt	Pristine	Control
302-02-01	CK,ST	Meadow 3/	Belt	Pristine	Control
302-02-19	CK,ST	Meadow 3/	Belt	Pristine	Fish only
302-02-16	ST,CT	Sable	Belt	Pristine	@ mouth
302-02-21	ST,CT	Butte	Belt	Pristine	@ mouth
305-02-03	CK,ST	Ten-mile 3/	Belt/Bath.	Pristine	Control
305-03-01	CK,ST	Crooked R. 3/	Belt/Bath.	Developed	2 sta.
305-06-08	CK,ST	Newsome 3/	Border	Developed	2 sta.

1/ This list of monitoring stations is preliminary. Stations can be dropped as new ones are added to best reflect management emphasis and needs.

2/ CK-Spring Chinook Salmon; ST-Summer Steelhead Trout; CT-Westslope Cutthroat Trout

3/ Indicates station that is also monitored by Idaho Dept. Fish and Game for population densities. Density measurements at these sites will be a joint effort and coordinated on an annual basis. These stations are a priority.

* This is a paired watershed opportunity with the WF Red River being undeveloped and the SF Red River having some development. The WF will be developed according to the Plan and the monitoring results used to calibrate the Watershed and Fisheries models.

Costs

Each standard station (easy access) is estimated to cost an average of $1200 per year. Estimates for remote stations will cost an average of $1200 per year each, plus an additional $800 for access. Remote stations are: 302-02-20 (Sable), 302-02-19 (Butte), 302-02-21 (Meadow Creek at the guard station), 301-03-13 (Bear Creek) and 301-01 (Running Creek at the mouth). The Simmons, Butte, and Meadow Creek stations are together and will require only $800 for access. Cost estimates for element 2 stations (C7) will cost an average of $600 per year per transect. As an example, Slide Creek has five transects, or $3000 per year. The cost of the paired watershed opportunity will not been included in the total monitoring budget until funding can be secured. All cost estimates are included in the total program budget for fish and are only highlighted here for reference.

Table O-2 -- Monitoring Costs (2e), By District

District	Estimated Number of Stations	Type	Estimated Annual Budget
D-1	4	standard	$4,800
D-4	2	standard	$2,400
D-5	5	standard	$6,000
	1	Element 2	$3,000
D-6	2	remote	$3,200
D-7	3	standard	$3,600
D-8	6	standard	$7,200
	3	remote	$4,400
Total =	26		$34,600

See Amend #8 for changes made to this table, this text is not valid

ITEMS: 2f and 11

The timber sale schedule, especially long-range predictions of future ASQs and the long-term sustained yield capacity (LTSYC), is dependent on the number of acres available for timber management and the rate of timber growth that will occur on those acres. Timber yield tables used in the modeling process were built using a growth simulation model, Prognosis. This model uses individual tree measurements and growth coefficients to predict future stand conditions (size, volume, species, etc.). The growth coefficients in this model have been determined from a variety of sources; Regional studies by species and habitat types and Forest-specific studies by species and habitat type. The Regionwide studies may or may not be good predictors of future growth and some of the local studies are based on limited data. The Forest has been establishing permanent plots in young second growth stands for the past 5 years in order to provide local data to check the predictions of the Prognosis model. During the implementation of the Forest Plan, we will continue to establish new growth plots as necessary to provide data for the types of sites where timber management is occurring as well as remeasuring plots already established.

ITEM: 2g

The National Forest Management Act of 1976 requires that implementation of the Forest Plan be monitored and evaluated to determine how well objectives have been met and how closely management standards and guidelines have been applied. This Act requires that all management prescriptions shall conserve the soil resource and not allow significant or permanent impairment of the productivity of the land.

The Soils Monitoring Plan has been developed to meet the intent of the National Forest Management Act regarding the soils resource.

Potential ground-disturbing activities which occur during timber harvest, logging slash disposal, mining, and livestock management will be monitored. A representative sample of ground-disturbing activities will be monitored on an annual basis to evaluate how closely management standards are being met. Specifically, monitoring will determine if a minimum of 80 percent of an activity area (e.g. timber harvest unit) has, upon completion of activities, not sustained significant or permanent impairment of the productivity of the land. The amount and degree of soil compaction, lateral soil displacement, and soil puddling will be evaluated to help determine if this standard is being met and to monitor the productivity of the lands on the Nez Perce National Forest.

ITEM: 2h

Purposes

Instream monitoring at representative fixed stations will be done for purposes of resource characterization, compliance with regulations and standards, effectiveness in meeting Forest Plan objectives, and validation of predictive models and planning assumptions.

Resource characterization or baseline monitoring is done in order to gain information about the watershed systems on the Forest. This information can be considered inventory, but is closely linked with monitoring. Characterization is considered to be an objective at each of the instream station sites and at the climatic station sites.

Compliance monitoring is conducted to determine if Forest management activities result in water quality conditions which meet applicable State and Federal regulations. Idaho water quality standards are administered by the Idaho Department of Health and Welfare. Federal direction is found in the Clean Water Act, the National Forest Management Act, and the Hells Canyon National Recreation Area Environmental Impact Statement.

Idaho water quality standards to be addressed by compliance monitoring include physical, chemical, and biological water quality variables and application of best management practices (BMPs). The State of Idaho has adopted general water quality standards for hazardous materials, deleterious materials, radioactive materials, excess nutrients, oxygen demanding materials, and suspended sediment. These apply to all waters of the State. In addition to the general standards, quantitative criteria for specific water use classifications have been adopted for 25 water quality variables. Representatively sampling many of these is difficult and costly due to high variability. Forest management has a low potential to affect many of these variables. For these reasons, a limited sampling of these variables is proposed under this Plan.

Effectiveness monitoring will assess whether management prescriptions are meeting the fisheries and water quality objectives outlined in Appendix A of this Plan. In most cases these streams will also be

monitored for fish habitat condition under the fisheries resource element (C5). The water component of effectiveness monitoring under element F3 includes measuring stream discharge, sediment yield, and channel characteristics. Each of these components will not be measured at each site. Site selection criteria and measurement techniques are outline below.

Validation monitoring is the most intensive level. It seeks to answer whether Forest Plan assumptions such as standards, guidelines, and predictive model coefficients are appropriate to meet regulations, policy, and objectives. Validation monitoring of water quality and stream characteristics requires a long-term commitment and intensive data collection at each site. It will be done in cooperation with the Intermountain Research Station to ensure representative site selection and to prevent duplication with other Forests.

Site Selection

Monitoring sites are selected to representatively sample conditions on the Forest and within the Northern and Intermountain Regions. Selection criteria include geology, landtypes, climatic regime, undeveloped versus developed watersheds, resource objectives within a watershed, existing data, access, and cost.

Existing and identified potential monitoring sites are described in the Table O-2. This list is neither comprehensive nor permanent. The monitoring network will change in response to information needs, technological advances, and ongoing evaluation of monitoring results. An effort is also underway to coordinate monitoring sites and techniques between Forests and other agencies. As this effort evolves, changes may occur in the sites and techniques presented here.

Additional opportunities for monitoring exist under programs administered by the Idaho Department of Health and Welfare. A number of possible monitoring scenarios are presently under consideration. The Forest will cooperate in this effort.

Climatic stations, snow courses, and stream gaging stations in addition to those listed in the table are operated by the National Weather Service, Soil Conservation Service, U. S. Geological Survey, and Nez Perce National Forest. Information from this network will be used for resource characterization and background data for predictive models.

Sampling, Analysis, and Interpretation

A variety of standard methods will be used in implementation of this monitoring element. For validation and some effectiveness monitoring, collection of annual sediment yield data will be done. This will involve continuous stream discharge measurement and sampling of both suspended and bedload sediment. In some cases, sediment detention basins will be used for bedload sediment. Suspended sediment will be collected using automated samplers calibrated with depth integrated samplers. Sediment sampling will concentrate during the spring runoff period, but an effort will be made to sample storm events during other seasons as well.

At stations where water chemistry or biological water quality characteristics are sampled, standard methods will be use for sample collection and analysis. Some analysis will be performed in the Forest water quality lab with the remainder being contracted.

Stream channel characteristics will be monitored using stream surveys, channel, cross-sections, and photo points. Techniques for monitoring channel characteristics are not well-established. As a result, several methods may be used and refined as time progresses.

Interpretation of monitoring results will be done jointly with soils and fisheries disciplines. An annual report will be prepared and distributed to interested agencies and individuals. Standard statistical techniques will be used where applicable and professional interpretation will be applied to all data.

Cost

Watershed monitoring costs under the existing Forest program are approximately $33,000 per year. The additional cost of the program outlined in Item 2g is about $16,000 per year. Startup costs, such as purchase of new instruments, are not included in the annual costs. Since this program is not expected to be static, actual costs will likely deviate from those proposed.

Data collection, analysis, and interpretation at Horse Creek and East Fork Horse Creek are presently conducted by the Intermountain Research Station as part of the Horse Creek Administrative Study. Operation of these stations costs about $6,000 per year. This cost would be added to the above figures if the Forest takes over operation of these facilities.

Paragraph added here, see Amend #8

The proposed soil and water monitoring program represents a significant increase in cost over the existing monitoring program. If the full increase is not received, prioritization of the monitoring needs would occur.

Highest priority would go to existing stations with valuable long-term data records. Included among these are two stations in Horse Creek. High priority would also be given to data needed as part of a Regional monitoring network. If sufficient funds are not received, sampling frequency at channel cross-section stations may be reduced. Start up of new water quality monitoring stations would be delayed. Further prioritization would depend on technical needs and program direction at the time.

Table O-3 -- Existing and Potential Instream Monitoring Stations

Watershed Name	Watershed #	Purposes	Installation	Variables	Comments
D-1 - SALMON RIVER RD					
N Fk Whitebird	0209-01-01	1,2,3	1,5	1,3,6,7,10	2
S Fk Whitebird	0209-01-07	1,3	5	10	2
N Fk Slate	0209-02-01	1,3	5	10	2
SF Skookumchuck	0209-02-15	1,2,3	1,5	1,3,6,7,10	2
Little Slate	0209-02-05	1,2,3	1,5	1,3,6,7,10	1
Rapid River	0210-01-03	1,2	1	1,3,6,7	1,6
D-4 - CLEARWATER RD					
Johns Ck	0305-01-01	1,2,3	1,5	1,3,6,7,10	1
Wall Ck	0305-07-03	1,2	4	2,4,6,7,8,9	1,3
N Fk Meadow	0305-07-04	1,3	5	10	2
S Fk Clearwater	0305-01-xx	1,2	3	1,3,7,8,9	2
D-5 - RED RIVER RD					
Trail	0305-04-05	1,3	5	10	2
Deleted by Amend #11					
Red River (upper)	0305-04-11	1,2,3,4	1,5	1,3,6,7,10	1
Trapper	0305-04-13	1,2,3,4	1,5	1,3,6,7,10	1
S Fk Red River	0305-04-15	1,2,3,4	1,5	1,3,6,7,10	1
S Fk Red (upper)	0305-04-16	1,2,3,4	1,5	1,3,6,7,10	2,7
W Fk Red River	0305-04-18	1,2,3,4	1,5	1,3,6,7,10	2,7
Deleted by Amend #8					
D-6 - MOOSE CREEK RD					
Running	0301-01-08	1,3	5	10	2
Bear	0301-03-13	1,3	5	10	2
D-7 - SELWAY RD					
O'Hara	0302-01-21	1,3	5	10	2
Selway River	0302-01-25	1,2	3	1,3,7,8,9	2,4
Meadow	0302-02-01	1,3	5	10	2
Horse (upper)	0302-02-26	1,2,3,4	2,5	1,3,5,7	1,5,7
E Fk Horse	0302-02-26	1,2,3,4	2,5	1,3,5,7	1,5,7
Gedney	0302-03-25	1,3	5	10	2
D-8 - ELK CITY RD					
Sable	0302-02-16	1,3	5	10	2
Meadow	0302-02-19	1,3	5	10	2
Butte	0302-02-21	1,3	5	10	2
Tenmile	0305-02-03	1,3	5	10	2
Crooked River	0305-03-01	1,3	5	10	2
Newsome	0305-06-08	1,3	5	10	2

The definitions of the code numbers used for Purposes, Installation, Constituents, and Comments are on the following page.

Explanation of the numbers used in Table O-2

General Footnote

The sites in Table O-1 are intended to serve as examples of the intensity and type of proposed watershed monitoring. Sites will be added and deleted from this list in response to changing technical and administrative needs. Selection of stations may be partly dictated by criteria presently being developed by an inter-regional monitoring task force.

Purposes

1 - Characterization of resource (baseline)
2 - Compliance with regulations and standards
3 - Effectiveness in meeting Forest Plan objectives
4 - Validation of predictive models and planning assumptions

Installation

1 - Gaging station, auto suspended sediment sampler, bedload sediment sampler
2 - Gaging station, auto suspended sediment sampler, sediment detention basin
3 - Gaging station, auto suspended sediment sampler
4 - Staff gage
5 - Channel cross-sections

Variables

1 - Stream discharge (continuous and instantaneous measurements)
2 - Stream discharge (instantaneous measurements only)
3 - Suspended sediment (automated and depth-integrated sampler)
4 - Suspended sediment (depth-integrated sampler only)
5 - Bedload sediment (detention basin)
6 - Bedload sediment (hand-held or cable-mounted sampler)
7 - Physical water quality characteristics (e.g. temperature, conductivity, turbidity, etc.)
8 - Water chemistry (e.g. dissolved metals, nutrients, etc.)
9 - Biological water quality characteristics (e.g. bacteria, giardia, etc.)
10- Stream channel characteristics (e.g. channel surveys, cross-sections, photo points, etc.)

Comments

1 - Existing monitoring stations
2 - Potential stations under assessment
3 - Municipal watershed
4 - Under assessment in cooperation with Clearwater National Forest (measurements would be paired with Lochsa River)
5 - Presently conducted by Intermountain Research Station
6 - Mandated by Hells Canyon National Recreation Area EIS
7 - Paired watersheds (control vs. treated)

ITEM: 2i

Project level monitoring will be done to determine if mitigation and BMPs are being implemented as planned and to determine effectiveness of these measures at meeting resource management objectives. Activities to be monitored could include road construction techniques, timber harvest, mining projects, grazing allotments, hydroelectric projects, or recreation use. The intent is to focus on cause and effect relationships between the activity and its effect on water quality, stream quality, and fish habitat. Information obtained will be used to refine mitigation measures and BMPs for improved application to future projects. Project monitoring can take the form of administrative reviews or technical field studies.

> Administrative Reviews - These involve onsite inspections of project areas to assess quality and results of the activity. Reviews can be informal, such as a site visit by the project leader and technical staff, or could involve a formal Forest review team. Results of the review are generally qualitative and are summarized in a written report.
>
> Field Studies - These involve collection of quantitative data related to water quality or stream quality. Examples of field studies include assessing sedimentation above and below road crossings, evaluating dissolved metals levels from a mine project, determining changes in water temperature above and below an activity, assessing changes in stream channel characteristics following installation of a hydroelectric project, measuring effects of grazing on bacteriological levels, etc.

Monitoring projects for specific management practices (generally referred to as BMPs) will vary according to need. This activity includes an intensive monitoring effort on a site-specific practice. Information will be gathered on cobble embeddedness, percent fines by depth, and fish population densities before and after implementation of a practice. Additional information will be obtained from Environmental Assessments and field reviews. Specific monitoring plans, to include watershed monitoring, will be developed prior to project implementation and results will be published annually. Priority will be given to monitoring specific practices in those drainages which are listed under fish habitat monitoring stations (Item 2e). All plans and results will be coordinated with the Idaho Departments of Health and Welfare and Fish and Game. Information gathered will be used to refine practices. Significant variations in predicted results will be used to modify outputs or practices in the Plan.

Forestwide levels of project monitoring will vary with the need for information about specific activities. An average level would be about 3 projects per year with an increase in cost over the existing monitoring program of about $3,000/year. Some of this type of monitoring has been ongoing and will continue. An ongoing field study commitment is for the Slide Creek Timber Sale, located on the Red River Ranger District.

ITEM: 2j

Management of riparian areas will be both a concern and an opportunity with implementation of the Forest Plan. Site-specific prescriptions which follow management area direction will be developed during project design. General policy is that riparian dependent resources are given priority in cases of conflict with other uses. Potential for conflict exists due to the high value of riparian areas for most resource uses.

Monitoring of riparian area management will be done through administrative field reviews. No additional costs to the existing monitoring program are anticipated. Reviews will be documented and

the results distributed as needed. Results will be used to make adjustments in riparian management prescriptions if needed.

ITEM: 2k,2l

One aspect of the Plan is to monitor and evaluate management area prescriptions as they are utilized in design, construction, maintenance, and access management of any given access facility.

The monitoring of this planning and implementation will be assessed with on-the-ground evaluations of effected resources with anticipated resource impact and effectiveness of mitigation prescriptions for that impact.

Further evaluation will be accomplished by monitoring access restrictions of traffic and user types. Continual monitoring of closure devices and access requests will be used to develop access needs and facility impacts.

Another aspect of the Plan is to provide for a variety of activities based on the ability of the forest resources and the forest user needs. The Distribution Index is used to measure the ability of the transportation facilities to provide for distribution of all forest users.

Monitoring of forest user trends and facility ability to meet these trends will be accomplished by continually monitoring forest user requests, site condition records, facility traffic counts, and area use inventories.

Monitoring will be accomplished to evaluate user needs and the ability or inability of existing facilities to provide distribution based on the ability of forest resources to provide the anticipated impacts.

ITEM: 2m

This monitoring plan does not require any new gathering of data, but will ensure that the Forest is carrying out its mineral management **responsibility under the law and according to manual direction**. This will include coordination with other state and federal agencies as possible sources of data. Mineral exploration and development activities, which are required by Mineral Regulation (36 CFR 228) to be covered by an approved Plan of Operations, will be periodically reviewed. No increase in administrative costs is projected, since the Forest is already required to do these tasks. However, in the past, there has not been any systematic method used to determine how well and how consistently they were being done. The monitoring plan will be a tracking mechanism to make sure that operating plans and bonds accurately reflect the current level of activity, that reclamation work is properly completed and the bond returned upon cessation of mining, and that a **reasonable** degree of uniformity exists in management of mineral activity throughout the Forest. *this text reflects changes made under Amend #3*

Several criteria will be used to measure the adequacy of operating plans. Each case file will be reviewed to determine whether or not the case is active. For cases that are obviously active, the adequacy of operating plans and bonds will be determined through discussions with district personnel, feedback from other federal and state agencies and, in some cases, field reviews. Bonds will be reviewed for consistency with Forest Service manual (2817.24) direction. Their expiration date will be checked to see if it is approaching or past, and the bond amount will be reviewed to determine if it is sufficient to cover reclamation work identified in the operating plan. For ongoing operations, special attention will be paid to determining if an adjustment is necessary in the bond amount to reflect more current equipment and labor costs. The status of cases which appear to be inactive will be resolved through discussion with district personnel and mine operators. If mining activity approved under the operating plan has been completed, reclamation requirements and the appropriateness of returning the bond will be determined.

This monitoring plan will help identify the following:

(1) If there are operating plans which need to be updated or modified.
(2) If there are bonds which need to be increased, decreased, or returned.
(3) If there are cases which need to be targeted to ensure reclamation is completed in a timely fashion.
(4) If there are case files which can be closed out.
(5) If there is a significant discrepancy among districts in the type of activities approved under operating plans or the method used to calculate bond amounts.

Where problems are identified from the information gathered, specific remedial action will be taken to resolve each problem case, and Forest direction or training will be targeted in instances of recurring problems.

ITEM: 2n *Monitoring item for W&S rivers added here....see text in Amend #11*

ITEMS: 3 and 3a

Economic assumptions that were used in the Forest Plan will be evaluated annually and are closely tied to the 5-Year Program Update process. Unit costs, revenues, and resource outputs will be reviewed by the Interdisciplinary Planning Team based upon the information from Analysis of the Management Situation (AMS) Baclground Paper, "Directory of Management Practices"(DMP). This review will estimate what, if any, changes should be made in order to define the current level of funding necessary to carry out the direction in the Forest Plan.

Assumptions on supply and demand functions will be reviewed annually with Regional Office assistance to determine if there have been significant changes which would have long-term impacts on these assumptions used in the Forest Plan. Sources of information will be Forest records for various resources, Washington Office and Regional office direction and information, and independent research.

ITEMS: 4 and 6

One aspect of monitoring timber activities in the Forest Plan includes a review of the silvicultural practices and the prescriptions written for these practices. Examples of specific items to be monitored are the size of openings created by timber removal, the amount and success of reforestation activities, the amount and types of timber stand improvements, and the correlation between the practices described in prescriptions and on-the-ground implementation.

A silvicultural prescription is a technical, site-specific, document that outlines specific actions taken to achieve stated objectives. These objectives are based on interdisciplinary input and direction in the Forest Plan. Prescriptions are reviewed periodically by the Forest and District silviculturists for technical accuracy and applicability to the site conditions. In addition to silviculturist reviews, interdisciplinary reviews of timber sales will also review the prescriptions. Office and field reviews of these prescriptions will ensure that the goals and objectives of the Forest Plan are being met through the vegetative manipulation practices.

Another important source of information for monitoring silvicultural activities will be the Forest's Timber Stand Data Base. This computerized recordkeeping system stores virtually all of the silvicultural data available on the Forest by individual stand number. Included are physical, administrative, and biological information as well as all activities that have taken place or are planned for each stand. This data base is the primary source of information for current accomplishment reports to the Regional Forester. Information in the data base is updated continuously by each District as activities occur or new information is gathered.

The timber stand data base allows the amount, type, and success of activities such as reforestation, timber stand improvement, and timber harvesting to be easily monitored by running computer reports. This summarized data can be reviewed and analyzed by the Forest silviculturist, other specialists, and staff officers to see if direction and assumptions of the Forest Plan are being met.

Silvicultural prescriptions, prescription and timber sale reviews, and timber stand data base reporting are currently being done so no additional costs will be required to gather this data. The accuracy of the data used for monitoring these activities is high, in part, because of established Regional reporting standards for the timber stand data base and periodic quality control checks by the Regional Office and the Forest.

Silvicultural practices will be evaluated against the goals and objectives, standards, or assumptions of the Forest Plan. In some cases, minor deviations, especially a single case, will not result in any changes to the Plan. The information from individual stands will be used to analyze the effectiveness and amount of treatment such as reforestation, timber stand improvement, or harvest methods. This analysis may result in specific changes in practices or levels of activities.

ITEM: 5

Timber activities will be monitored to see if they are occurring on lands identified as suitable or unsuitable in the Forest Plan. The Forest Plan specifies which activities may occur on unsuitable lands and under what specific conditions. This information will be obtained through the use of the timber stand data base described previously and by the various timber harvest reports that require timber volumes to be reported by the land classification where it occurs. In addition to this post-treatment check, the environmental analysis steps taken prior to project implementation by an interdisciplinary team will identify when activities and land assignments are incompatible, based on a check of capability areas and management areas. These checks will have high accuracy and reliability.

ITEM: 7

The types of insects and disease present on the Forest and the extent of their distribution and numbers will be monitored. The source of this data will come from the on-going timber exams done on the Forest and from Forestwide inventories conducted by Forest Pest Management personnel annually. Large increases in disease or insects that create significantly different stand conditions from those considered in the planning process will result in further evaluation. The findings of this evaluation could lead to amendments or revisions to the Plan.

Appendix P

SUMMARY OF ELIGIBLE WATERWAYS

	Mileage			
Waterway	**Recreation**	**Scenic**	**Wild**	**Features**
Bargamin Creek		6	15	C,F,R,S,T&E,V,W
Bear Creek Complex			65	All
Johns Creek			19	F,R,S,W
Lake Creek	4		10	C,G,R,S,T&E,V,W
Meadow Creek	1		34	C,F,R,S,T&E,V,W
Moose Creek Complex			75	All
Running Creek		8	7	F,G,R,W
Salmon River	25			C,F,R,S,W
Slate Creek	14		5	C,F,G,R,S
S. Fork Clearwater	60			F,G,R,S
White Bird Creek	6			C,F,G
Three Links Complex			18	C,F,G,R,S,V
West Fork Gedney			4	C,F,G,R,S,V
Total Mileage =	110	14	252	

KEY TO OUTSTANDING FEATURES:

C - Cultural
F - Fisheries
G - Geologic
R - Recreation
T&E - Threatened & Endangered Species or Habitat
S - Scenic
V - Vegetation
W - Wildlife

It is not anticipated that these determinations will have any effect on the present environment. A separate suitability study will be completed for each eligible river segment or Forest group of eligible river segments at a later date. For details on the rivers considered and the interactions leading to the eligibility and classification determinations, see the Forest Planning Records.

Figure P-1 contains maps showing the location of the eligible rivers and the recommended classification of each segment.

Note: The map referenced above is not included here. See Forest Plan hardcopy.

APPENDIX Q

Note: Appendix Q was added as part of FP Amendment #2

NEZ PERCE NATIONAL FOREST-MOTORIZED/NON-MOTORIZED RECREATION MANAGEMENT

AREAS DESIGNATED BY CONGRESSIONAL ACTS		AREAS DESIGNATED IN FOREST PLAN		AREAS DESIGNATED IN FOREST PLAN	
Motorized recreation prohibited		Motorized recreation generally prohibited		Roads are open unless posted (signed) restricted or closed	
MANAGEMENT AREA	ACRES	MANAGEMENT AREA	ACRES	MANAGEMENT AREA	ACRES
8.2 - "Wild" portion of the Middle Fork of the Clearwater Wild and Scenic River corridor.	14,909	1 - Rock outcrops, scree, or areas of shallow soils along canyons and major drainages.	19,388	7 - Developed recreation sites.	400
8.3 - "Wild" portion of Rapid River.	4,218	2 - Ranger stations, work centers, and other administrative sites.	1,600	8.1 - "Wild" portion of the Salmon Wild and Scenic River corridor.	9,241
9.1 - Selway Bitterroot Wilderness.	560,088	3 - Cultural Resource Areas.	350	8.2 - "Recreational" portion of the Middle Fork of the Clearwater Wild and Scenic River corridor.	6,693
9.2 - Gospel-Hump Wilderness.	200,464	4 - Mineral extraction and processing operations.	520	10 - Lakes, lakeside lands, perennial streams, riparian areas.	11,859
9.3 - Frank Church-River of No Return Wilderness.	105,736	6 - Research Natural Areas.	8,015	11 - Forested lands that are, for the most part, unroaded.	126,846
HELLS CANYON WILDERNESS	59,900			12 - Forested land 13 - Forested land 14 - Forested land 15 - Forested land 17 - Forested land 18 - Forested land	539,884 11,500 1,765 72,003 104,529 10,468
				19 - Primary range	19,906

AREAS DESIGNATED BY CONGRESSIONAL ACTS		AREAS DESIGNATED IN FOREST PLAN		AREAS DESIGNATED IN FOREST PLAN	
Motorized recreation prohibited		Motorized recreation generally prohibited		Roads are open unless posted (signed) restricted or closed	
MANAGEMENT AREA	ACRES	MANAGEMENT AREA	ACRES	MANAGEMENT AREA	ACRES
HELLS CANYON WILDERNESS (cont)				16 - Deer and elk winter habiatat	151,683
				20 - Old-growth habitat	64,659
				21 - Moose winter range	45,140
				22 - Wall Creek Municipal Watershed	2,042
				23 - Elk Creek Municipal Watershed	7,061
				HELLS CANYON NRA	57,173
Total Acres =	945,315	Total Acres =	29,873	Total Acres =	1,242,852
Percent of Forest =	43%	Percent of Forest =	1%	Percent of Forest =	56%
		Percent Outside of Congressionally Designated Areas	2%	Percent Outside of Congressionally Designated Areas	98%