

adverse effects associated with dispersed recreation are difficult to prevent or to mitigate.

Operating on the assumption that measurable and direct project activity impacts will not significantly differ between alternatives because of policy and procedure, the preferred alternative will determine, in a monumental fashion, the:

- 1) amount of acres surveyed annually and concurrently, and the
- 2) degree to which we expand our knowledge of the cultural resource base.

Table IV-3, which presents the average decade output by activity type, lists the variety of project activities in the order of the degree of disturbance to the cultural resource base. Land exchanges and nonstructural range improvements are the most disturbing types of management activity. Protective fuel breaks and treatments which employ prescribed burning, herbicide spraying, and seeding, are generally the least disturbing activities. Alternatives 2, 5 and 10, which emphasize nonstructural and structural range improvements, will subject an average of 49,000 to 98,000 acres to archeological survey over a ten year period. Range chainings, which are normally positioned within the high site density areas of the pinyon-juniper forest, are completely surveyed.

Alternatives 4, 6, 9 and 11, which reduce the high levels of range chainings, fences, and water developments, while maintaining or increasing the high output levels of the timber program, will significantly reduce the amount of acres surveyed for cultural resources. Timber sale areas, located in the high altitude, low site density zones of aspen-conifer, are sample surveyed. Hence, the reduction of nonstructural and structural range improvement acres and the maintenance or increase of timber sale volumes, will significantly decrease the annual total of acres surveyed for cultural resources. So our ability to expand our knowledge of the cultural resource base will also decrease.

Table IV-4, as a graphic illustration of this concept, compares the potential levels of cultural resource surveys between alternatives by decade.

The ability to increase our knowledge of the cultural resources base should be clarified. It does not rest totally on our ability to survey large project areas. Alternative methods can include the following:

1. completion of the Fishlake National Forest cultural resource overview (FSM 2361.22),
2. synthesizing existing cultural resource data and the encouragement of out-service (i.e., university, foundation) research,
3. conducting Forest-wide, non-project oriented surveys in areas that have had little previous archeological work, and

4. the use of volunteers to conduct non-project research, survey and excavation.

The indirect impacts associated with dispersed recreation can be important to cultural resources. The degree of these indirect impacts will increase or decrease according to the level of dispersed recreation. Alternative 7 would have the least effect on the cultural resource base. Alternative 5 would have the most effect. Adverse effects associated with dispersed recreation are difficult to prevent or to mitigate.

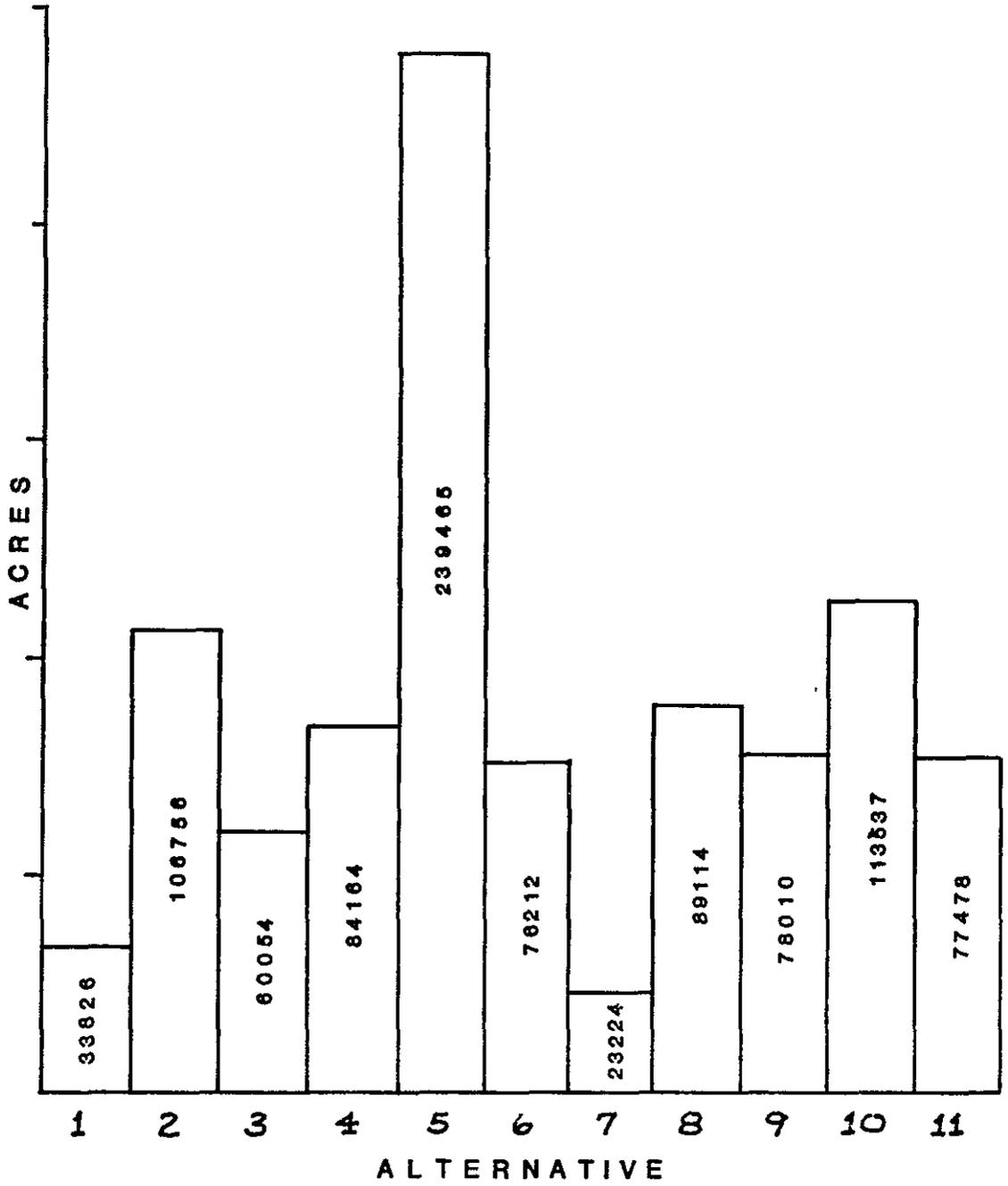
TABLE IV-3  
AVERAGE DECADE OUTPUTS BY ACTIVITY/ALTERNATIVE

ACTIVITY	UNIT OF MEASURE	1	2	3	4	5	6	7	8	9	10	11
Lands Exchanged	Acres	0	440	0	440	440	440	0	440	440	440	440
Range: Nonstructural Improvement	Acres	14304	49849	27058	38693	98314	33243	13222	39533	38104	20068	38137
Water Development	Acres	3896	15584	12805	11610	55302	11039	3896	17019	10649	33565	10649
Fences	Acres	3896	15584	12805	11610	55302	11039	3896	17019	10649	33565	10649
Wildlife: Non-structural Improvements	Acres	0	3600	0	4140	4180	4168	0	0	4180	4160	4180
Structural Improvements	Number	290	634	0	5458	4070	5096	0	76	5718	5096	5718
Watershed Improvements	Acres	1800	720	0	6926	3744	5702	0	4704	3912	6644	3912
Timber Sales	Acres	4340	14450	4140	8050	16020	4650	600	4830	4560	4310	5070
Plantations	Acres	3014	4097	2626	1615	3507	3799	1078	3555	3488	5567	2701
Road Construction	Miles	162	177	81	92	246	222	61	196	211	285	182
Facilities: Trail Construction	Miles	5	5	3	28	24	24	1	8.4	22	33.6	22
Minerals, Leases and Permits	Cases	1880	1880	1880	1880	1880	1880	1880	1880	1880	1880	1880
Road Reconstruction	Miles	227	176	71	100	344	282	71	249	274	336	231
Fuel Breaks & Treatment	Acres	1000	1000	0	200	200	20	0	200	0	2600	0

1/: Average decade outputs by activity type and alternative have been presented in the general order of the degree of disturbance to cultural resources. Land exchanges, due to the removal of protective legislations, are the most disturbing activities to cultural resources, while fuel breaks and treatment, encompassing prescribed burns, spraying and seeding, are generally the least disturbing.

TABLE IV-4  
CULTURAL RESOURCE

Estimated Project Acres To Be Surveyed  
By Alternative



## Visual Resources

Management direction for each alternative included appropriate measures to maintain visual quality or assess potential change. Some management activities enhance visual condition by improving the variety within the landscape while other activities degrade existing visual condition by creating contrast with form, line, color or texture.

Activities that continue production of goods and services will affect a small acreage annually as compared to total forest acreage. Some activities will "fit in" and not seem to change appearance. Others will "blend in" to some degree, while some will introduce unacceptable contrast.

The measure that was selected to evaluate the effects on the visual resource of each alternative was the amount of acreage lost from natural appearing landscapes. This was determined for the entire planning period (to the year 2030). Thus, the degree of "fit-in" or "blend-in" was eliminated from the evaluation. The rate or amount of change over time for each alternative became the measurement of effect.

Natural appearing landscapes were judged to be the acres of visual quality classed as preservation, retention and partial retention. Each alternative had a combination of activities which adds or subtracts acreage from these visual classes. Existing visual quality has been determined to be 17 percent retention, 54 percent partial retention, 26 percent modification and 3 percent maximum modification.

Each alternative would cause a negative effect on the natural appearing landscapes. Total acre loss of natural appearing landscapes range from 15,100 acres for alternative 7 to 95,500 acres for alternative 5. The average annual rate for the 50 year period (1980-2030) ranges from 302 acres to 1910 acres. The average annual reduction in acres of natural appearing landscapes by alternative is as follows:

Alternatives										
1	2	3	4	5	6	7	8	9	10	11
448	1104	564	892	1910	896	302	962	936	712	916

## Unavoidable Adverse Effects

Motorized recreation use outside of developed sites damages vegetation and compacts or disturbs soil. This is caused by off-road vehicle activity, camping along streams and meadows, and leaving roads for firewood and game retrieval. The ranking of the alternatives for these effects will coincide with the most to least outputs for motorized recreation.

Cultural resources will be unavoidably affected by intentional and unintentional disturbance from recreation visitors. This effect would be proportional to the amount of recreation outputs of the alternatives. The more people recreating on the land the greater the potential for disturbance of sites and unauthorized removal of artifacts.

Total acreage of natural appearing landscapes will be reduced a small percentage. This visual resource change occurs when roads and structures are constructed in natural landscapes.

### Short-term Uses vs Long-Term Productivity

Recreational use of the Forest is by visitors who stay for a few hours to several days. This use will not reduce long term productivity of the Forest. Recreation sites and facilities are a long-term commitment of land. However, facilities could be removed and the sites revegetated and made available for other uses.

The setting aside of a cultural resource site is a long-term commitment but does not reduce long term productivity of the land.

### Irreversible and Irretrievable Commitment of Resources

Most recreational activities do not consume resources. Visitors use water and wood (camp fires) and also consume animals and fish (hunting and fishing).

Loss of a cultural resource site is irreversible and irretrievable when it is significantly disturbed. Other sites, however, may provide similar information.

Recontouring the land to construct roads and structures causes a long-term change to natural landscapes. Reestablishing the contour of the land is usually possible except for steep and vertical slopes where roads have been constructed.

## 2. WILDLIFE AND FISH

### Threatened, Endangered, and Sensitive Species

Under each alternative, the habitat of threatened or endangered species will be managed so that the current population levels will not be limited by the habitat. For the peregrine falcon (endangered), alternative 7 would maintain the existing situation: namely, presence of scattered individuals that may not constitute a breeding population. Alternatives 1, 2, 3 and 8 provide for a slightly improved situation, allowing for some habitat enhancement. All other alternatives provide for the opportunity to reestablish the peregrine in all potential sites.

Bald eagle (endangered) habitat would be maintained at existing levels under all alternatives. No habitat improvement has been proposed for any alternative because of insufficient data concerning conditions of bald eagle wintering areas and possible improvement needs. Current information indicates limited Forest use by bald eagles. The Utah prairie dog (threatened) habitat will be maintained and improved in all alternatives in cooperation with UDWR and the prairie dog recovery plan.

The biological evaluation to brief the U.S. Fish and Wildlife Service for the purpose of their determination of need for formal consultation under Section 7 of the Endangered Species Act has begun.

The habitat of the northern flying squirrel (sensitive) will largely be maintained and in some areas increased under all alternatives. The exception will be in the spruce and subalpine-fir two-storied stands, where there will be some decrease in some limited areas of small clear cuts. This decrease will be greatest in alternative 2 and least significant in alternatives 3, 4 and 7.

The merlin or pigeon hawk (sensitive) will not be significantly affected by any alternative. It is essentially a fall and winter migrant on the Forest and it rarely breeds in Utah. Most low elevation coniferous forests, because of lack of desirability for large timber sales and poor quality lumber, trend toward old-growth under all alternatives, increasing potential breeding habitat.

Because they are cavity nesters, the mountain and western bluebirds (sensitive) will be most affected by alternatives 2, 5, and those alternatives which harvest the greatest volumes of timber. The mountain kingsnake (sensitive) is not expected to be significantly affected by any alternative.

Under alternatives 3 and 7, Bonneville cutthroat trout (sensitive) populations will remain at current levels because little or no habitat improvement is proposed. Alternative 2 will result in a slight increase in their population, and a greater increase would result under alternative 1 or 8 because they provide direct habitat improvement. The maximum benefits to this species will be realized under alternatives 4, 5, 6, 9, 10, and 11 because of direct habitat improvement. Coordination with other activities to minimize and mitigate possible adverse effects from other resource activities is called for under all alternatives.

Populations of sensitive plant species will be maintained under all alternatives. Most of these populations are found in steep, harsh sites where management activities are not expected to harm them.

#### Habitat Capability

The relationship between current habitat, minimum viable population (MVP), maximum potential, and alternative levels of habitat capability are displayed in table IV-5. The comparison here is based on an index of 100 for currently available habitat for all Management Indicator Species (MIS).

Habitat sufficient to maintain minimum viable populations of all MIS will be provided by all alternatives through the year 2030.

TABLE IV-5

## HABITAT CAPABILITY INDEX

For All Management Indicator Species by Alternative at Year 2030

(Index of Habitat Required to Sustain Present Level of Population is 100)

Indicator Species	MVP 1/	MAX 1/	1	2	3	4	5	6	7	8	9	10	11
Goshawk	32	270	180	200	198	210	200	200	195	182	198	200	198
Cavity Nesters	32 2/	346 2/	107	107	100	100	107	107	107	107	100	100	100
Riparian Guild	52 2/	100 2/	100	100	100	100	100	100	100	100	100	100	100
Sage Nesters	13 2/	141 2/	97	97	102	100	99	99	96	99	100	100	100
Macroinvertebrates	90	128	100	96	100	122	122	122	100	100	120	120	120
Resident Trout 3/	20	150	115	100	115	156	150	150	100	115	150	150	150
Bonneville Cutthroat	20	233	167	223	100	100	223	107	133	223	223	223	223
Wapiti (Elk) 4/	40	225	190	200	195	225	202	215	190	195	194	202	194
Mule Deer 4/	40	210	180	200	198	210	200	200	195	182	198	200	198
Rydberg Milkvetch	100	100	100	100	100	100	100	100	100	100	100	100	100

1/ MVP = Index of habitat required to sustain minimum viable population.

MAX = Index of habitat required to reach maximum population potential.

2/ These figures will vary dependant upon the species involved in the particular riparian habitat type being manipulated, modified, of otherwise managed.

3/ Fisheries index is based on fish production. Resident trout MIS represents a given amount of coldwater fish production in a specific location in all areas not identified as sensitive Bonneville cutthroat trout habitat.

4/ Big game (deer & elk) index is based on population estimates.

TABLE IV-6  
COMPARISON OF PROJECTED CAPABILITY OF HABITAT  
CARRYING CAPACITY\* FOR  
NUMBER OF BIG GAME ANIMALS BY ALTERNATIVES

ALTERNATIVE	SPECIES	DECADE					
		1986	1988	1995	2005	2015	2030
1	#Elk	3,920	3,932	3,960	3,960	3,960	3,960
	#Deer	46,540	46,744	47,220	47,300	47,340	47,340
2	#Elk	4,020	4,020	4,020	4,160	4,160	4,160
	#Deer	48,720	49,398	50,980	32,100	51,760	51,860
3	#Elk	3,900	3,906	3,920	3,920	3,920	3,920
	#Deer	45,920	46,058	46,380	46,560	46,540	46,500
4	#Elk	4,300	4,366	4,520	4,540	4,540	4,540
	#Deer	55,760	57,236	60,680	61,380	61,160	61,080
5	#Elk	4,060	4,090	4,160	4,180	4,160	4,160
	#Deer	49,800	50,448	51,960	52,480	52,160	51,960
6	#Elk	4,200	4,248	4,360	4,420	4,420	4,420
	#Deer	53,340	54,420	56,940	58,240	58,120	57,940
7	#Elk	3,900	3,900	3,900	3,900	3,900	3,880
	#Deer	45,640	45,688	45,800	45,820	45,680	45,600
8	#Elk	3,940	3,946	3,900	3,960	3,960	3,980
	#Deer	46,760	46,976	47,480	47,600	47,580	47,740
9	#Elk	3,860	3,865	3,890	3,920	3,920	3,920
	#Deer	44,952	45,116	45,712	46,268	46,263	46,250
10	#Elk	4,050	4,090	4,160	4,180	4,160	4,160
	#Deer	49,800	50,448	51,960	52,480	52,160	51,960
11	#Elk	3,860	3,865	3,890	3,920	3,920	3,920
	#Deer	44,952	45,116	45,712	46,260	46,638	46,250

Current number of deer (1984 estimate) 25,000 wintering on Forest  
Current number of elk (1984 estimate) 2,000 wintering on Forest

\* Fishlake Forest share of winter range (29% of total deer winter range - 90% of total elk winter range).

All alternatives provide for maintenance of the current habitat needs of six MIS. By contrast, all alternatives provide less than present habitat for only one MIS. Current habitat is increased for mule deer and elk under all alternatives. Current habitat for resident trout is expanded under all alternatives except alternatives 1, 2, 3, 7, and 8, where it could remain static. Current habitat for Bonneville cutthroat trout is increased under all alternatives except alternatives 3 and 7, where it is maintained.

Figure IV-1 displays the projected increase in WFUDs over the next 2 decades. This increase is based on increased capability of the habitat to support wildlife populations. This increase in habitat capability is caused by the fish and wildlife habitat improvement program plus coordination and mitigation involved in other resource management activities.

Tables IV-7 and IV-8 display wildlife and fisheries outputs for all eleven alternatives over the planning horizon.

Generally speaking the preferred alternative 11 will provide for a more balanced expenditure of wildlife funds, including projects for big game, fish, nongame, and other wildlife species. There will be a 10 percent funding of livestock vegetation rehabilitation projects with wildlife funds, when available, and when such projects are located within big game winter range. There will also be a 10 percent reservation for wildlife of the increased forage in projects done within big game winter range.

**FIGURE IV - 1**  
**WILDLIFE & FISH USER DAYS (WFUDS)**  
 for alternatives & benchmarks

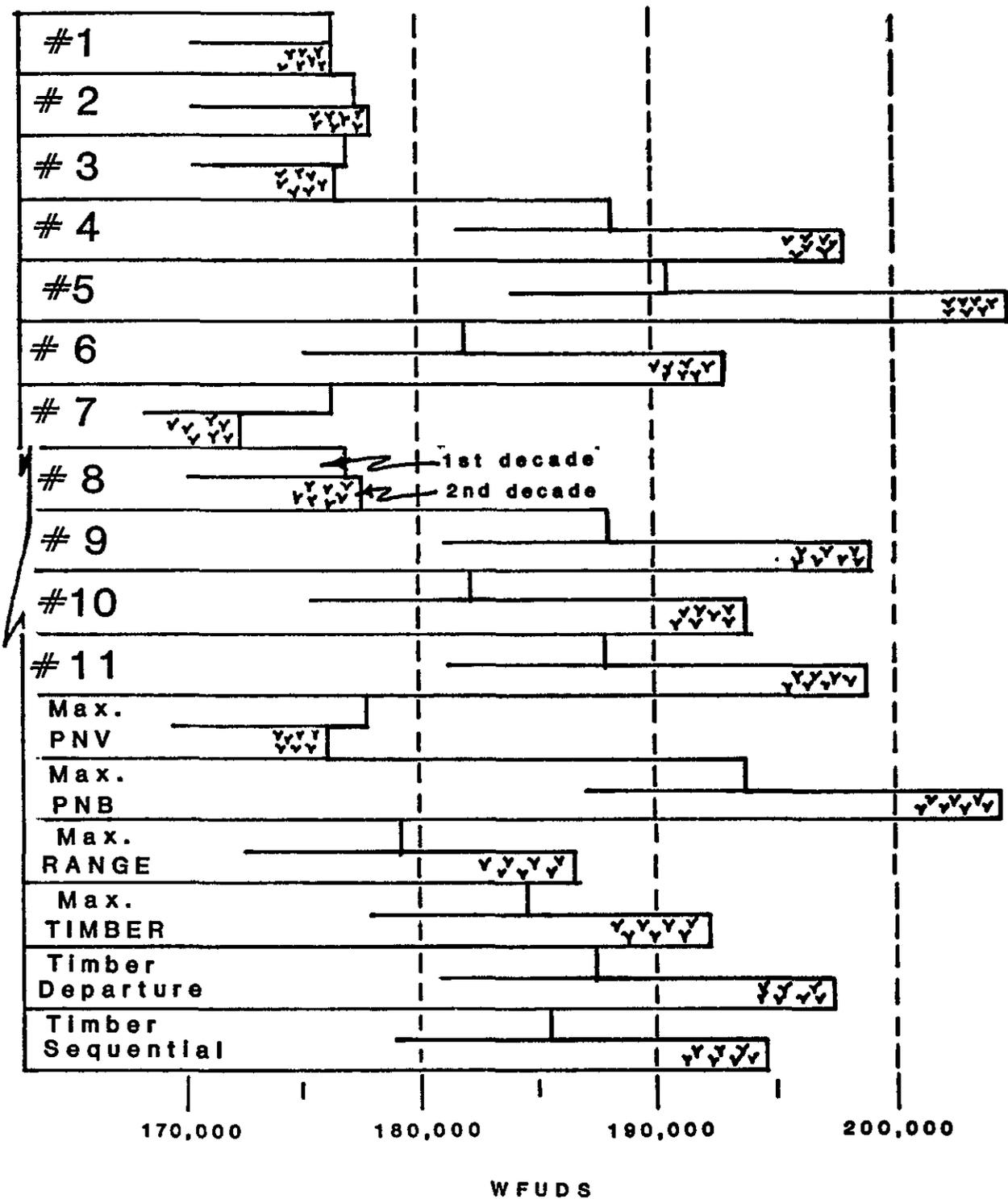


TABLE IV-7  
WILDLIFE AND FISHERIES PROJECT  
OUTPUTS FOR ALTERNATIVES/BENCHMARKS  
FOR 5 DECADES

Alterna- native	Outputs Wildlife	Unit	Decade				
			1	2	3	4	5
1	Structural	Structures	29	29	29	29	29
	Nonstructural	M Acres	0	0	0	0	0
2	Structural	Structures	29	72	72	72	72
	Nonstructural	M Acres	0	.45	.45	.45	.45
3	Structural	Structures	0	0	0	0	0
	Nonstructural	M Acres	0	0	0	0	0
4	Structural	Structures	517	553	553	553	553
	Nonstructural	M Acres	.414	.414	.414	.414	.414
5	Structural	Structures	407	407	407	407	407
	Nonstructural	M Acres	.418	.418	.418	.418	.418
6	Structural	Structures	252	574	574	574	574
	Nonstructural	M Acres	.412	.418	.418	.418	.418
7	Structural	Structures	0	0	0	0	0
	Nonstructural	M Acres	0	0	0	0	0
8	Structural	Structures	10	7	7	7	7
	Nonstructural	M Acres	0	0	0	0	0

TABLE IV-7 (cont.)  
WILDLIFE AND FISHERIES PROJECT  
OUTPUTS FOR ALTERNATIVES/BENCHMARKS  
FOR 5 DECADES

Alternative	Outputs Wildlife	Unit	Decade				
			1	2	3	4	5
9	Structural	Structures	567	573	573	573	573
	Nonstructural	M Acres	.418	.418	.418	.418	.418
10	Structural	Structures	255	574	574	574	574
	Nonstructural	M Acres	.412	.418	.418	.418	.418
11	Structural	Structures	567	573	573	573	573
	Nonstructural	M Acres	.418	.418	.418	.418	.418
Max PNV	Structural	Structures	30	55	55	55	55
	Nonstructural	M Acres	.013	0	0	0	0
Max PNB	Structural	Structures	394	394	394	394	394
	Nonstructural	M Acres	.026	0	0	0	0
Max Range	Structural	Structures	340	340	340	340	340
	Nonstructural	M Acres	2.11	.58	1.97	.58	1.97
Max Timber	Structural	Structures	357	347	357	357	357
	Nonstructural	M Acres	.025	0	0	0	0
Timber Depart.	Structural	Structures	503	503	503	503	503
	Nonstructural	M. Acres	.291	.390	.418	.390	.418
Timber Seq.	Structural	Structures	405	405	405	405	405
	Nonstructural	M. Acres	.026	0	0	0	0

TABLE IV-8  
WILDLIFE AND FISHERIES USER DAY  
OUTPUTS FOR ALTERNATIVES/BENCHMARKS  
FOR 5 DECADES

Alterna- native	Outputs Wildlife	Unit	Decade				
			1	2	3	4	5
1	Fish User Days	M Fish User Days	68.8	69.7	70.0	70.0	70.2
	Wildlife User Days	M Wildlife User Days	107.5	106.6	105.2	105.2	105.2
	Total User Days	M Total Fish & Wildlife User Days	176.3	176.3	175.2	175.2	175.2
2	Fish User Days	M Fish User Days	68.0	69.0	69.5	69.4	69.5
	Wildlife User Days	M Wildlife User Days	109.2	108.9	108.7	109.1	108.8
	Total User Days	M Total Fish & Wildlife User Days	177.2	177.9	178.2	178.5	178.3
3	Fish User Days	M Fish User Days	68.1	68.5	68.6	68.5	68.6
	Wildlife User Days	M Wildlife User Days	108.5	107.8	107.4	107.5	107.4
	Total User Days	M Total Fish & Wildlife User Days	176.6	176.3	176.0	176.0	176.0
4	Fish User Days	M Fish User Days	78.7	90.0	90.9	90.8	90.8
	Wildlife User Days	M Wildlife User Days	108.5	107.8	107.3	107.5	104.4
	Total User Days	M Total Fish & Wildlife User Days	188.2	197.8	198.2	198.3	195.2
5	Fish User Days	M Fish User Days	76.8	90.5	93.3	93.0	92.9
	Wildlife User Days	M Wildlife User Days	113.7	114.3	114.8	115.3	115.6
	Total User Days	M Total Fish & Wildlife User Days	190.5	204.8	208.1	208.3	208.5

TABLE IV-8 (cont.)  
WILDLIFE AND FISHERIES USER DAY  
OUTPUTS FOR ALTERNATIVES/BENCHMARKS  
FOR 5 DECADES

Alternative	Outputs Wildlife	Unit	Decade				
			1	2	3	4	5
6	Fish User Days	M Fish User Days	73.0	84.7	91.4	91.4	91.5
	Wildlife User Days	M Wildlife User Days	108.8	108.0	107.5	107.7	107.5
	Total User Days	M Total Fish & Wildlife User Days	181.8	192.7	198.9	199.1	199.0
7	Fish User Days	M Fish User Days	68.7	69.2	69.8	69.7	69.7
	Wildlife User Days	M Wildlife User Days	107.5	102.9	104.9	104.9	104.9
	Total User Days	M Total Fish & Wildlife User Days	176.2	172.1	174.7	174.6	174.6
8	Fish User Days	M Fish User Days	68.0	68.2	68.3	67.8	68.3
	Wildlife User Days	M Wildlife User Days	108.6	109.1	109.1	109.2	109.1
	Total User Days	M Total Fish & Wildlife User Days	176.6	177.3	177.4	177.0	177.4
9	Fish User Days	M Fish User Days	79.6	91.2	91.5	91.4	91.5
	Wildlife User Days	M Wildlife User Days	108.4	107.8	107.5	107.8	107.6
	Total User Days	M Total Fish & Wildlife User Days	188.0	199.0	199.0	199.2	199.1
10	Fish User Days	M Fish User Days	72.9	83.9	90.4	90.3	89.9
	Wildlife User Days	M Wildlife User Days	109.2	110.0	110.0	110.0	110.7
	Total User Days	M Total Fish & Wildlife User Days	182.1	193.9	200.4	200.3	200.6

TABLE IV-8 (cont.)  
WILDLIFE AND FISHERIES USER DAY  
OUTPUTS FOR ALTERNATIVES/BENCHMARKS  
FOR 5 DECADES

Alterna- native	Outputs Wildlife	Unit	Decade				
			1	2	3	4	5
11	Fish User Days	M Fish User Days	79.7	91.3	91.6	91.4	91.5
	Wildlife User Days	M Wildlife User Days	108.2	107.6	107.4	107.7	107.5
	Total User Days	M Total Fish & Wildlife User Days	187.9	198.9	199.0	199.1	199.0
Max PNV	Fish User Days	M Fish User Days	70.3	70.4	70.5	70.5	70.5
	Wildlife User Days	M Wildlife User Days	107.3	105.5	104.5	104.6	104.5
	Total User Days	M Total Fish & Wildlife User Days	177.6	175.9	175.0	175.1	175.0
Max PNB	Fish User Days	M Fish User Days	78.1	89.2	89.6	189.6	89.7
	Wildlife User Days	M Wildlife User Days	115.6	115.3	115.4	115.8	115.8
	Total User Days	M Total Fish & Wildlife User Days	193.7	204.5	205.0	205.4	205.5
Max Range	Fish User Days	M Fish User Days	73.5	82.1	82.1	81.7	81.7
	Wildlife User Days	M Wildlife User Days	106.5	104.4	104.0	103.2	103.0
	Total User Days	M Total Fish & Wildlife User Days	179.0	186.5	186.1	184.9	184.7
Max Timber	Fish User Days	M Fish User Days	77.8	87.7	88.3	88.3	88.3
	Wildlife User Days	M Wildlife User Days	106.7	104.5	103.1	103.1	103.0
	Total User Days	M Total Fish & Wildlife User Days	184.5	192.2	191.4	191.4	191.3

TABLE IV-8 (cont.)  
 WILDLIFE AND FISHERIES USER DAY  
 OUTPUTS FOR ALTERNATIVES/BENCHMARKS  
 FOR 5 DECADES

Alterna- native	Outputs Wildlife	Unit	Decade				
			1	2	3	4	5
Tim- ber	Fish User Days	M Fish User Days	79.2	89.7	90.1	89.9	90.2
De- par- ture	Wildlife User Days	M Wildlife User Days	108.2	107.6	107.4	107.7	107.5
	Total User Days	M Total Fish & Wildlife User Days	187.4	197.3	197.5	197.6	197.7
Tim- ber	Fish User Days	M Fish User Days	78.1	89.0	89.6	89.7	89.8
Seq. Bou- nds	Wildlife User Days	M Wildlife User Days	107.3	105.5	104.5	104.6	104.5
	Total User Days	M Total Fish & Wildlife User Days	185.4	194.5	194.1	194.3	194.3

### Diversity

Diversity is a function of natural vegetative succession as offered by management activities. Alternatives 2, 5, and 10 come closest to the ideal for diversity of coniferous types. The negative aspect of these alternatives is their poor interspersion of types. The overmature conifer stands are located in areas to be managed in a natural condition or are located at higher elevations and classed as unproductive. Also, early seral stages of conifer are concentrated at lower elevations interspersed with a few overmature stands. Additional information concerning diversity is provided in the timber section of this chapter.

Alternatives 4 and 7 provide the least diversity, with some sites where interspersion is poor and where overmature types dominate. The remaining alternatives are quite similar to each other in that they are dominated by overmature conifer stands and are poorly represented by early seral vegetation types. All of these remaining alternatives have relatively good interspersion in managed areas of the Forest but have few in the unmanaged portions.

Based on timber harvesting, community alteration in alternatives 4 and 7 is about one-half of the current program and far less than alternative 2. Long-term changes in plant and animal communities will take place at a relatively low rate and will tend to be dominated by late succession types. However, no changes in species richness are anticipated under these or any other alternatives.

Aspen types are predominantly overmature and will likely remain so unless a market develops for aspen harvest. The amount of habitat manipulation programmed within the aspen type will not significantly affect the type within the next decade. Grass-forb, wet meadow, riparian shrub, mountain brush, sagebrush, and juniper communities should remain at essentially constant levels (within 10 percent) throughout the planning horizon for all alternatives.

### Habitat Improvements

The most significant improvement in overall quality of habitat takes place under alternatives 4, 5, 9, and 11. The level of direct habitat improvement in these alternatives is much more than that provided under alternative 1. Under each of these alternatives a program of maximum direct habitat improvement will be combined with an increased level of coordination with other resource activities. Alternative 2 significantly increases the acreage of aspen cutting. Big game habitat is increased the most in alternatives 2, 4, 5, 6, and 10. All the alternatives meet or exceed the habitat needs for the DWR 1979 objective of 3400 elk and 82,600 deer by 1990.

The effect of habitat improvement for terrestrial wildlife species is to alter plant succession such that habitat conditions become more favorable for the target species. For fish, habitat improvements generally alter physical characteristics of the aquatic environment. The overall influence of these activities on aquatic habitat is small because relatively little habitat is treated over time, even in the alternative with the greatest amount of improvement.

Present condition of winter range will be maintained or improved under all alternatives. At the current rate of plant succession, the overall quantity and quality of this habitat may decline slowly under alternatives 4 and 7.

Snag and old growth habitats should increase or be maintained to meet MVP levels for MIS under all alternatives. However, this can be expected to occur on relatively unproductive sites (steep slopes, high elevation, or areas to be managed with a nondevelopment type of prescription). The two-storied mature stands of subalpine-fir and spruce decrease under all alternatives, so this segment of Snag and old growth habitats could be an exception to the general increase without strict adherence to and enforcement of the Forest Snag Management Policy.

Table IV-6 displays the relative quantity of wildlife and fish habitat improvement for the different alternatives.

### Aquatic Habitat

Under alternative 1, grazing capacity and permitted grazing use will decrease by 12 percent from current use. With the implementation of riparian Standards and Guidelines, grazing pressure on riparian areas may be slightly less, which may improve stream habitat condition to some extent. This in combination with a limited number of habitat improvement projects may increase fish production on the Forest by about three

percent. This will not come close to meeting projected fishing demand, which is expected to increase by 130 percent by 2030. Habitat improvement projects will concentrate on improving the limited habitat of Bonneville cutthroat trout. Production of Bonneville cutthroat trout could increase by up to 100 percent by the end of the planning period. Macroinvertebrate populations as measured by the biotic condition index (BCI) will not change substantially.

Implementation of alternative 2 will have little impact on grazing capacity, which will remain relatively constant, decreasing only slightly by the end of the planning period. Timber harvest will increase by 163 percent. That could increase sediment delivery into the streams. This could result in a slight negative impact to fish production. The BCI could decrease slightly on streams affected by timber harvest. A slight increase in habitat improvement projects should compensate for reduced fish production due to increased sediment, resulting in a net increase in fish production on the Forest. These projects will concentrate on improving Bonneville cutthroat trout habitat and could increase production of this sensitive subspecies by over 100 percent. Overall fishing opportunities on the Forest will increase by about two percent by the end of the planning period.

Under alternative 3, grazing capacity and permitted use will decrease slightly. There will be no change in the level of timber harvest. No habitat improvement projects will be funded under this alternative. There will be no significant change in fish production, fishing opportunities, or Bonneville cutthroat trout populations. The BCI may decrease slightly.

Under alternative 4, grazing pressure on riparian areas will decrease over the planning period which will improve stream habitat condition slightly. At the same time timber harvest will increase after the first decade by 67 percent, which may increase sediment production. High funding levels for aquatic habitat improvement projects could have a significant positive effect on aquatic habitat condition and may result in higher fish production on the Forest. Production of Bonneville cutthroat trout could more than double by the end of the planning period. The BCI may increase somewhat. It is limited by increased sediment levels. Fishing opportunities on the Forest could increase by 34 percent by the end of the planning period.

Timber harvest and permitted grazing use will increase substantially under alternative 5. This could increase sediment delivery to the stream and grazing pressure on riparian areas, which could reduce overall stream habitat condition and the BCI initially. High funding levels for aquatic habitat improvement projects will increase overall fish production on the Forest substantially. Fishing opportunities on the Forest could increase by 37 percent by the end of the planning period. Habitat improvement projects for Bonneville cutthroat trout could more than double production of this subspecies.

Implementation of alternative 6 may result in slightly reduced grazing pressure on riparian areas. A 220 percent increase in timber harvest may increase sediment delivery to streams and lakes, resulting in a decrease in the BCI initially. High funding levels for aquatic habitat improvement

projects will substantially increase overall fish production on the Forest. Fishing opportunities may increase by up to 35 percent. Bonneville cutthroat trout production will increase substantially as the result of habitat improvement projects.

Alternative 7 will reduce timber harvest by 83 percent and permitted grazing use by 12 percent. This could result in less sediment delivery to streams and less grazing pressure on riparian areas. Although no aquatic habitat improvement projects will be funded under this alternative, stream habitat condition and fish production may increase slightly. Fishing opportunities may increase by three percent by the end of the planning period. There will be no significant change in production of Bonneville cutthroat trout.

Implementation of alternative 8 may result in a slight decrease in grazing pressure on riparian areas. A large increase in timber production after the first decade may result in increased sediment delivery to streams and lakes. However, this may be mitigated by a large increase in watershed restoration dollars in the second decade. A limited number of habitat improvement projects will concentrate on improving habitat for Bonneville cutthroat trout. Overall aquatic habitat condition, fish production and fishing opportunities may increase only slightly. Production of Bonneville cutthroat trout could increase by 40 percent by the end of the planning period. The BCI may decrease slightly in certain streams due to the increase in sediment production.

Alternative 9 will result in a decrease in grazing pressure on riparian areas and an increase in sediment production from timber activity. Aquatic habitat condition may increase and the BCI may decrease initially. High funding levels for aquatic habitat improvement projects could result in significant increases in fish production. Production of Bonneville cutthroat trout could more than double by the end of the planning period. Fishing opportunities could increase by 35 percent.

Implementation of alternative 10 will result in an increase in grazing pressure and a significant increase in sediment production from increased timber harvest of 350 percent. This could decrease aquatic habitat condition and the BCI initially. High funding for aquatic habitat improvement projects will allow for substantial increases in total fish production and production of Bonneville cutthroat trout. Fishing opportunities could increase by 32 percent.

Alternative 11 will have impacts similar to alternative 9. Aquatic habitat condition may improve slightly, while the BCI may initially decrease. High funding levels for aquatic habitat improvement projects could result in significant increase in total fish production and production of Bonneville cutthroat trout. Fishing opportunities could increase by 35 percent.

Under all alternatives, minimum viable population levels will be maintained or exceeded for Bonneville cutthroat trout and resident trout. The BCI may decrease slightly in alternatives 2, 5, 6, 8, 9, 10 and 11. No alternative will meet projected demand for fishing use by the end of the planning period. Alternatives 4, 5, 6, 9, 10 and 11 meet demand in the

first decade and come within 30 percent of demand by the end of the planning period.

Alternative Relationship to Agency Goals

Objectives of the Utah Division of Wildlife Resources are not directly comparable to Forest figures because the 1979 estimates were based on herd units and total animals.

The Forest population figures are taken from projected capability of habitat carrying capacity based on the Forest-provided share of the limiting factor of winter range. This limiting range is equal to 29 percent for deer and 90 percent for elk. Our Forest predicted outputs by alternative for deer and elk are shown in Table IV-8.

All alternatives exceed the UDWR objectives for mule deer and elk. (See Tables IV-5 and IV-9).

TABLE IV-9  
FISHLAKE NATIONAL FOREST HABITAT CAPABILITY

<u>ALTERNATIVE</u>	<u>MULE DEER</u>	<u>WAPITI(ELK)</u>
1	47,340	3,960
2	51,860	4,160
3	46,500	3,920
4	61,080	4,540
5	51,960	4,160
6	57,940	4,420
7	45,600	3,880
8	47,740	3,980
9	46,250	3,920
10	51,960	4,160
11	46,250	3,920
UDWR OBJECTIVE*	23,954	3,060

\* DWR figures are based on total deer and elk herd numbers not differentiating between summer and winter range. Fishlake Forest figures are based on 29% of total winter range for deer and 90% for elk. The DWR objectives are 82,600 deer and 3,400 elk.

Unavoidable Adverse Impacts

Alternatives 5 and 10 may result in an initial negative impact to riparian areas until watershed and stream improvement projects become effective.

Implementing alternatives 2, 5, 6, 9, 10, or 11 could increase stream sedimentation initially because it expands the road construction program. These alternatives also reduce big game hiding cover and habitat effectiveness in some areas.

Under low budget alternatives, the drift toward old-growth dominated habitats will continue in conifer and aspen types. This will decrease habitat for species dependent on early vegetative succession.

### Short-term Uses vs. Long-term Productivity

None of the short-term wildlife and fish uses will reduce long-term productivity of the land under any of the proposed alternatives.

### Irreversible and Irretrievable Commitment of Resources

There are no anticipated irreversible or irretrievable commitments of any resources in any alternative.

## 3. RANGE

### Effects Without Permittee Contributions

Under Alternatives 5 and 10, the grazing capacity would increase significantly over present levels. Major reductions in grazing capacities would result for Alternatives 1 and 7. All other alternatives have minor changes in capacity over time. These changes are illustrated in Table IV-10 using Alternative 8 (1985) as the base to compare all other alternatives. The grazing capacity used as the base is 136,600 AUM's. Table IV-10 displays changes in grazing capacity (AUM's) over time using proposed management alternatives.

TABLE IV-10  
THOUSAND'S OF AUM'S  
(YEARS)

Alternative	1985	1995	2005	2015	2025
1	-5.8	-11.7	-14.8	-14.7	-15.8
2	+1.0	-0.2	-1.0	+0.1	+0.8
3	-1.8	-4.7	-6.0	-5.8	-6.3
4	-1.8	-4.5	-6.6	-5.6	-0.2
5	+18.5	+21.0	+23.0	+25.0	+26.0
6	-0.5	-3.9	+7.4	-4.8	-5.9
7	-5.7	-11.9	-16.0	-15.8	-15.9
8	0	-0.2	-0.2	+0.5	-0.2
9	-2.1	-4.5	-5.7	-4.7	-5.4
10	+1.0	+4.0	+4.0	+4.3	+7.0
11	-3.1	-5.2	-6.0	-5.1	-5.6

### Effects with Permittee Contributions

Decreases in AUM's could be offset by: (1) reconstruction of range improvements by permittees, (2) abandonment of some marginal improvements, (3) changes in allotment management systems, or (4) acceptance of a lower condition standard for the range resource. However, a lower condition standard would not be acceptable because of potential damage to other resources.

Permittee contributions would be aimed at maintenance of current improvements and the addition of some structural improvements. Use of permittee contributions to accomplish nonstructural improvements would likely be minimal. Therefore, carrying capacities would decline on all alternatives except 2, 5, 8 and 10.

No alternative reaches the President's goal of a 46 percent increase in AUM's by the year 2030. To achieve that goal would require an output of 203.5 thousand AUM's which is about 125 percent of the maximum range benchmark of 163.6 thousand AUM's for that year. The historic high demand for the range resource on the Fishlake National Forest has kept utilization near maximum levels. Consequently there is little opportunity for significant increases.

#### Wild Horses

Wild horses and burros do not exist on the Forest at present. Therefore, no alternative concerns these animals.

#### Riparian Areas

All alternatives affect riparian areas. Some areas would be fenced following proposals in alternatives 9 and 11. Fencing of riparian areas offers the most hope of reducing adverse effects to fisheries and selected riparian areas. Introduction of innovative grazing systems also will do much to reduce adverse grazing impacts to fisheries and selected riparian areas. Alternatives 5 and 10 may result in an initial negative impact to riparian areas due to increased grazing pressure until stream and watershed improvement projects and new grazing systems have time to produce effects.

#### Wildlife/Livestock Interactions

Under all alternatives, there will be adequate forage on the summer rangelands to provide for projected big game populations. On winter ranges, revegetation projects are being coordinated so that benefits can be obtained for both wildlife and livestock. For alternative 7, competition between wildlife and livestock would be greatest for forage on winter ranges because few revegetation projects could be accommodated. Livestock numbers would probably be reduced. Although livestock numbers would likely be increased over time under Alternatives 5 and 10, the increases in forage production would be sufficient to also meet the needs of big game. Under alternatives 2 and 8, current livestock grazing capacity could be maintained with little effect on big game habitat. For alternatives 1, 3, 4, 6, 9, and 11 some livestock reductions would be required to bring permitted numbers in line with carrying capacity of the ranges. It would be necessary to coordinate livestock use and big game use with the Division of Wildlife Resources under all alternatives to maintain an acceptable balance.

All grazing allotments would be under an approved allotment plan by 1988 for all alternatives except 1 and 7, which will have plans prepared at a later date. These plans would provide for improvement and maintenance work as well as acceptable grazing systems. Time frames would be established for bringing permitted grazing use in line with grazing capacities, thus minimizing grazing impacts.

### Noxious Weeds

Alternatives 1 and 7 would have little funding available for control of noxious farm weeds. Under these alternatives, there would be expanded noxious weed populations with serious conditions resulting from thistle invasions on lower elevation lands where revegetation projects have been completed. Croplands adjacent to the Forest could be greatly impacted.

Under all other alternatives, control measures could be taken which would effectively manage the current noxious weed infestations. Because many new revegetation projects would be initiated, there would be some new invasions expected on sites where soil is being exposed through vegetative manipulation practices.

A Regional Environmental Impact Statement is currently being prepared on noxious weed control. Control methodologies may include physical, chemical, or biological procedures. Methods used on the Forest will be those selected in the Regional EIS.

### Unavoidable Adverse Effects

Grazing and trampling along trails used to access summer ranges adversely affects the range under all alternatives.

Alternatives 5 and 10 may result in an initial negative impact to riparian areas until watershed and stream improvement projects are established.

Minor degradation of water quality of some streams will continue under all alternatives. However, State anti-degradation standards can still be met. Cumulative impacts over the long run would be minor because land disturbing management activities within any watershed are of limited extent.

Under alternatives 2, 5, and 10 more sites will lose some vegetation because of grazing pressure on bedding and salting grounds. However, more revegetation work will be completed, which should improve the total vegetative cover for these alternatives.

Range forage production and plant vigor should be maintained or improved on all alternatives except 1 and 7. The changes in soil losses associated with changing watershed conditions are evaluated in the watershed section.

Road construction and clearing land for installing facilities interferes with control of livestock under all alternatives. Road construction affects the distribution and control of livestock least under alternatives 3 and 7, with slightly higher impacts on all other alternatives.

Juniper chainings and some other types of vegetative manipulation will degrade scenic values in varying degrees under all alternatives except 1 and 7.

### Short-term Uses vs. Long-term Productivity

Under alternatives 1 and 7, productivity could be reduced on some heavily used sites, especially in riparian areas, where water quality may be affected. All existing and future range improvements will increase short-term production and help insure long-term productivity of the range.

Over the long term, fire control will favor woody plant growth over herbaceous production under all alternatives.

### Irreversible and Irretrievable Commitment of Resources

Loss of soil on isolated sites where livestock are concentrated is irretrievable. Lost production of red meat due to any reduction of AUM's is irretrievable.

#### 4. TIMBER

The average annual harvest of timber over the 50 year planning period ranges from .5 MMBF for alternative 7 to 13.5 MMBF for alternative 10. Annual harvest under current direction is 3.0 MMBF (see Table IV-11).

Under management prescribed by alternatives 1, 3, and 8, timber losses from insects and diseases will continue (see the Forest Pest Management section in this chapter) since conversion of old growth stands is slow. Alternative 7 reduces the harvest and prolongs conversion of old growth. Alternatives that hasten the cut (10, 5, 2, 6, 9 and 11 in that order) decrease losses to insects and disease. The alternatives that increase the harvest decrease long-term losses because they convert stands to a young, vigorous condition resistant to insects and disease.

Risk of timber loss from fire is greatest in alternative 7 due to possibility of downfall build up related to mountain pine beetle. Alternatives with current harvesting levels are least susceptible to fire losses, while alternatives with increased cutting are subject to increased risk of crown fires in young growth and slash.

Alternatives with moderate increases in harvest (2, 4 and 11) will also benefit most species of wildlife. Adequate horizontal and vertical diversity is maintained, while openings will increase forest edge and forage production. Alternative 7 provides little of those benefits; however, it best maintains cavity nester populations with lots of overmature timber. Conversely, alternative 10 supports fewer cavity nesters with considerable old growth conversion. Adequate cavity nester populations will be maintained by following the Forest snag policy. Alternatives with increased cuts will reduce available thermal and hiding cover, thereby supporting lower populations of wildlife requiring this habitat condition. Increased roads will be detrimental to most wildlife, especially big game. Soil loss and water yield increases due to timber harvest are discussed in the Water and Soil section of this chapter.

Firewood to be made available with each alternative is displayed in Table IV-12. Energy costs currently are not rising as rapidly as they did in the previous decade, and a number of firewood users have decided that firewood

gathering is not as cheap or recreational as they thought. Based on the current situation and using the last five year history of firewood demand, current demand appears to be 17,000 cords. Alternatives 1, 3 and 8 have programs below that demand. Decade 1 of alternative 5 also has a program below estimated demand. The largest amount of firewood is available with Alternatives 4 and 2 respectively, exceeding demand in all five decades. The firewood resource is not limiting for any of the alternatives (granted firewood close to roads continues to become scarcer). Budgets to administer the charge program are the limiting factor since these dollars are constrained within the Forest budget. Current demand can be met from intensified use of pinyon-juniper from existing and proposed chainings, salvage of dead or down timber, and residual logging and road building debris. Increased supplies will come from harvesting green oak, maple, mahogany, and aspen. Green aspen firewood will come from areas being managed for wildlife habitat improvement and not timber producing aspen stands.

Alternative 7 has a minimal timber sale program, leaving a good share of the budget for firewood management. Conversely, alternative 10 has the largest conifer timber sales program and not many dollars are available for firewood administration. Alternatives 7 and 10 fall short of meeting demand in the second or third decade.

Timber stand improvement and reforestation estimates by alternative are shown in Table IV-13. These acreages are all current projects. The Forest's known backlog acreage was completed in F.Y. 84.

Where compatible with budget limitations, 50 acres of thinning for Christmas tree production was included in decades 1 and 2. (See asterisk in Table IV-13). This is planned for isolated white fir stands which will be designated for Christmas tree production.

Other effects, such as the number of acres harvested annually, long term sustained yield, tentatively suitable land, road construction etc., vary by alternative (Table IV-14). Acres by harvest method are listed in Tables IV-15, IV-16, and IV-17 for the alternatives. Vegetative management practices concur with biologically feasible harvest cutting methods for forest types present on the Forest. They are appropriate practices described in the Regional Guide for the Intermountain Region (Forest Service, 1984), and in Silvicultural Systems for the Major Forest Types of the United States (Burns, 1983). Table IV-18 displays vegetation management practices and annual average acres of treatment for decade one for each alternative.

Aspen has an estimated sustained yield of 13.7 million board feet per year. The aspen type is nearly excluded from the harvest projections shown in the alternatives because there is little market for it. At least .3 MMBF of aspen is included in all alternatives except 7. In alternative 2, two million feet of aspen are scheduled in the first decade. Alternative 4 includes aspen volume of 1.5 MMBF each year. Alternative 5 includes 2.5 MMBF in the first decade and 0.5 MMBF for the rest of the planning period.

TABLE IV-11  
 OUTPUTS OF COMMERCIAL TIMBER  
 SALES BY ALTERNATIVE  
 (MMBF PER YEAR)

ALTERNATIVE	DECADE				
	1	2	3	4	5
1	3.0	3.0	3.0	3.0	3.0
2	6.0	7.9	7.9	7.9	7.9
3	3.0	3.0	3.0	3.0	3.0
4	3.0	6.5	6.5	6.5	6.5
5	7.4	9.6	9.6	9.6	9.6
6	3.0	9.6	9.6	9.6	9.6
7	.5	.5	.5	.5	.5
8	3.0	3.0	3.0	3.0	3.0
9	3.0	8.8	8.8	8.8	8.8
10	9.6	9.6	10.4	12.0	13.5
11	3.0	8.3	8.3	8.3	8.3
Departure	3.0	17.0	10.3	10.3	6.3

To convert to MMCF, divide MMBF by 5

TABLE IV-12  
 OUTPUT OF FIREWOOD BY ALTERNATIVE  
 (CORDS PER YEAR)

ALTERNATIVE	DECADE				
	1	2	3	4	5
1	15,760	15,760	15,760	15,760	15,760
2	26,800	30,800	30,800	30,800	30,800
3	16,000	16,000	16,000	16,000	16,000
4	32,320	32,820	32,800	32,800	32,800
5	16,480	23,280	23,280	23,280	23,280
6	24,600	23,280	23,280	23,280	28,200
7	19,280	19,280	19,280	19,200	19,200
8	15,760	15,760	15,760	15,760	15,760
9	19,280	23,280	23,280	23,280	23,280
10	19,280	19,280	19,280	19,280	19,280
11	19,280	25,600	25,600	25,600	25,600

To convert to MCF, divide cords by 10

TABLE IV-13  
PRECOMMERCIAL THINNING AND REFORESTATION  
(ACRES PER YEAR)

ALTERNATIVE	DECADE				
	1	2	3	4	5
1 Thinning	5	5	5	5	5
Reforestation	193	193	193	193	193
2 Thinning	148*	228*	232	280	508
Reforestation	240	422	290	276	450
3 Thinning	0	10	86	23	21
Reforestation	193	193	193	193	193
4 Thinning	50*	72*	285	52	24
Reforestation	73	280	151	97	207
5 Thinning	60*	579*	533	513	550
Reforestation	307	339	303	293	247
6 Thinning	58*	286	553	361	289
Reforestation	181	462	273	195	342
7 Thinning	50*	145*	154	50	99
Reforestation	22	138	134	117	126
8 Thinning	5	5	5	5	5
Reforestation	193	193	193	193	193
9 Thinning	59*	384*	516	364	355
Reforestation	165	361	297	273	295
10 Thinning	50*	483*	575	494	466
Reforestation	992	336	395	417	644
11 Thinning	50*	199*	251	528	167
Reforestation	174	439	284	204	249

\* Includes 50 acres thinning in white fir for Christmas tree culture.

TABLE IV-14  
EFFECTS ON THE TIMBER RESOURCE  
UNDER ALL MANAGEMENT ALTERNATIVES  
(BASE YEAR 1995)

EFFECTS	ALTERNATIVE											
	1	2	3	4	5	6	7	8	9	10	11	
1. Long-term sustained yield, live only (MMBF/Yr):												
Softwood	8.97	9.28	5.87	6.02	10.12	10.49	4.09	9.48	9.44	14.94	9.08	
Hardwood	1.38	2.16	1.38	6.90	3.22	1.38	0	1.38	1.38	1.38	1.38	
Total	10.35	11.44	7.25	12.92	13.34	11.87	4.09	10.86	10.82	16.32	10.46	
2. Acres harvested per year (50 yr. avg.): <sup>1/</sup>												
Softwood	726	697	384	549	1359	1194	156	1079	1140	1273	1014	
Hardwood	120	188	120	600	280	120	0	120	120	120	120	
Total	846	885	504	1149	1639	1314	156	1199	1260	1393	1134	
3. Total suitable forest land (M acres):												
Softwood	67	61	37	42	83	80	29	73	74	102	68	
Hardwood	12	19	12	60	28	12	0	12	12	12	12	
Total	79	80	49	102	111	92	29	85	86	114	80	
4. Suitable Acres of old growth (softwood) (120+ yrs.) (M. acres)												
at 10 years	60	55	34	38	75	72	25	65	67	95	59	
at 50 years	19	17	16	18	13	16	11	16	14	26	24	
at 150 years	32	27	10	19	46	41	12	37	38	39	22	

TABLE IV-14  
EFFECTS ON THE TIMBER RESOURCE  
(con't)

EFFECTS	1	2	3	4	5	6	7	8	9	10	11
5. Age class distribution:											
at Present (softwood)											
Seed-saps (%)	1										
Poletimber (%)	7										
Sawtimber (%)	92										
at 10 years (softwood)											
Seed-saps (%)	3	3	3	3	3	3	6	3	3	3	3
Poletimber (%)	7	7	7	7	7	7	6	7	7	7	7
Sawtimber (%)	90	90	90	90	90	90	87	90	90	90	90
at 50 years (softwood)											
Seed-saps (%)	68	71	57	57	84	84	63	78	81	75	66
Poletimber (%)	3	0	0	0	0	0	0	0	0	0	0
Sawtimber (%)	29	29	43	43	16	19	37	22	19	25	34
at 150 years (softwood)											
Seed-saps (%)	17	16	30	16	4	6	20	11	10	16	7
Poletimber (%)	14	16	23	22	7	16	20	11	10	16	23
Sawtimber (%)	69	68	47	62	89	78	60	78	80	68	70
6. Average annual harvest, 50 year planning period live only (MMBF)	3.0	7.5	3.0	5.8	9.2	8.3	.5	3.0	7.6	11.0	7.2
7. Expected annual fuel wood output, 50 year planning period (M cords)	15.7	30.0	16.0	32.7	22.2	24.5	19.2	15.7	22.5	19.3	24.1
8. Acres of aspen available for harvest with development of market (M acres)	181	195	168	148	224	210	107	193	200	243	236

1/ Does not include fuelwood.

TABLE IV-15  
CLEARCUT (ACRES/YR)

ALTERNATIVE	DECADE				
	1	2	3	4	5
1	311	334	194	462	243
2	1089	389	545	497	486
3	351	357	257	492	357
4	649	777	656	754	870
5	1462	430	253	321	238
6	345	328	229	270	350
7	20	19	17	178	185
8	370	406	236	451	274
9	361	376	245	339	263
10	403	503	381	625	426
11	228	613	282	176	457

TABLE IV-16  
SHELTERWOOD (AC/YR)

ALTERNATIVE	DECADE				
	1	2	3	4	5
1	87	152	0	16	281
2	0	0	0	0	31
3	40	15	0	0	242
4	151	466	0	8	211
5	61	0	174	172	115
6	71	586	0	0	437
7	38	20	0	0	0
8	71	224	0	0	370
9	43	271	0	0	350
10	0	0	0	0	542
11	268	157	249	0	83

TABLE IV-17  
SELECTION (AC/YR)

ALTERNATIVE	DECADE				
	1	2	3	4	5
1	17	704	1167	220	39
2	327	309	774	246	73
3	0	35	288	76	11
4	0	73	951	174	7
5	33	1762	1775	1647	74
6	27	952	1844	1116	13
7	0	47	77	165	16
8	17	1045	1714	815	0
9	28	1114	1718	1124	70
10	0	419	1915	1645	108
11	0	496	838	1761	62

TABLE IV-18  
VEGETATION MANAGEMENT PRACTICES  
(Annual Average In First Decade For Suitable Lands)

PRACTICE	ALTERNATIVE										
	1	2	3	4	5	6	7	8	9	10	11
Regeneration Harvest:											
Clearcut	311	1089	351	649	1462	345	20	370	361	403	228
Shelterwood											
-Preparatory Cut	87	0	40	151	61	71	38	71	43	0	268
-Seedcut	0	0	0	0	0	0	0	0	0	0	0
-Removal Cut	0	0	0	0	0	0	0	0	0	0	0
Selection	17	327	0	0	33	27	0	17	28	0	0
Intermediate Harvest:											
Commercial Thinning	0	0	0	0	0	0	0	0	0	0	0
Salvage/Sanitation	19	29	23	5	46	22	2	25	24	28	11
Timber Stand Improvement:	5	148*	0	50*	60*	58*	50*	5	59*	50*	50*
Reforestation:	193	240	193	73	307	181	22	193	165	992	174

\* Includes 50 acres thinning in white fir for Christmas tree culture.

### Unavoidable Adverse Effects

Soil disturbance as a part of road construction for access to timber harvest areas temporarily increases sedimentation in streams. The amount of soil disturbance varies depending upon the miles of road constructed or reconstructed (Table IV-19 ). Some soil loss as harvesting increases is unavoidable. Soil loss will be minimized by using appropriate erosion control measures.

TABLE IV-19  
PURCHASER LOCAL ROAD CONSTRUCTION  
(MILES PER YEAR)

ALTERNATIVE	DECADE				
	1	2	3	4	5
1	5	8	9	6	8
2	10	10	24	23	23
3	4	5	7	5	5
4	3	12	16	7	9
5	9	31	32	40	31
6	5	27	30	26	25
7	1	1	1	1	1
8	5	8	9	8	8
9	5	25	29	28	25
10	17	29	35	44	39
11	6	19	21	37	16

Scenic quality is temporarily degraded following logging activity and is discussed in the Visuals section of this chapter.

Under all alternatives, dust raised by logging trucks degrades air quality temporarily and locally. Alternatives with more harvesting have a greater cumulative effect.

### Short-Term Uses vs. Long-Term Productivity

Timber harvesting practices maintain the long term productivity of the land in all alternatives. Alternatives which convert old growth faster to young, vigorous stands increase timber production over those with current or reduced harvesting.

### Irreversible and Irretrievable Commitment of Resources

Building roads is an irreversible commitment of a resource because of the long time required for roaded areas to revert to a pristine condition.

The pinyon-juniper ecotype will be impacted over the planning period by the accumulative effect of conversion to grass types. This impact is greatest in alternatives 2, 5 and 11. Some soil loss as timber harvesting increases is irretrievable.

## 5. WATER AND SOIL

For all alternatives watershed conditions will be maintained during management activities to varying degrees by implementing soil and water conservation measures prescribed by soil and water specialists. Under the current budget, this is required on most projects.

Completion of watershed improvement projects to eliminate the watershed backlog, as shown by Table IV-20, will decrease soil erosion, improve water quality and improve watershed condition. Under alternatives 4, 6 and 10, the watershed backlog acres will be eliminated by the end of the planning period (year 2030). Alternatives 5, 8, 9 and 11 provide for a moderate, steady program to rehabilitate depleted watersheds, but the backlog will not be eliminated by the end of the planning period. Alternatives 1 and 2 provide for a very modest program in rehabilitating depleted watershed areas. Alternatives 3 and 7 provide for no treatment of depleted watershed areas. Under none of the alternatives will the backlog be eliminated by the target date of the year 2000.

Municipal watersheds will be protected in coordination with city, county, and state agencies under all alternatives.

Runoff from all watersheds on the Forest meets State Water Quality standards. Some water bodies on the Forest, due to natural factors and management impacts, do not meet standards for cold water fisheries. Under all alternatives, water leaving the Forest will meet State standards.

Water yield increase opportunities are limited on the Forest. Only the conifer and aspen zones get enough snow to consider for management for water yield increase. The Forest timber base is limited enough that the potential for management for water yield increase is relatively insignificant. The potential for yield increase by alternative is shown in Table IV-20. Alternatives 5, 6, 8, 9, 10 and 11 have the greatest potential for increased yield since they are the alternatives with the most timber harvest. Alternatives 3, 4 and 7 provide the least opportunity to increase water yield, with alternatives 1 and 2 having a moderate increase potential. The potential increases are relatively minor Forest wide and the increase from an individual timber sale may be undetectable. Any increase in yield in the alternatives would be divided between the Great Basin and the Colorado River Basin on an 80-20 percent basis respectively. A seven year study of cloud seeding in central Utah indicates that seeding can increase precipitation during the period from January through March by 8 to 14 percent (Shaffer and Thompson 1980, p. 7-10).

The net reduction in onsite erosion has been determined by calculating acres affected in each alternative by range improvement practices, watershed improvements, timber harvest, road construction and fish and wildlife treatments. Table IV-22 displays the net reduction in onsite erosion from the mix of activities included in each alternative. Site disturbing activities which increase soil loss include timber harvest and road construction or reconstruction. Management activities resulting in net erosion reduction include areas treated for watershed improvement, areas improved by structural and nonstructural range treatments, and fish and wildlife projects and structures.

A comparison of alternatives indicates that alternatives 3 and 7 provide for the least reduction of onsite loss, since few projects reducing onsite erosion would be done. Alternatives 4, 5, 6, 9, 10 and 11 provide for the most onsite erosion reduction, as the most acres will be treated that will improve watershed condition. Alternatives 2 and 8 are moderate in reducing onsite erosion.

While sediment is not included in state water quality standards, it has a major impact on water quality. Sediment delivery to a stream is related to both onsite soil loss and streambank erosion. Streambank erosion may be affected by road construction, livestock trampling, ORV use and high density recreation use. While onsite soil loss can be reduced through non-structural or structural watershed, range, and wildlife improvement projects, bank erosion can be reduced most effectively through streambank stabilization, riparian fencing, and reduction in grazing and recreation pressures.

Alternatives 2 and 3 may increase sediment delivery to streams due to increases in soil and bank disturbing activities or decreases in direct watershed and streambank improvements. Alternatives 1, 7 and 8 will not significantly affect sediment delivery to streams.

Alternatives 5, 6, and 10 may show an initial increase in sediment delivery due to significant increases in activities that will disturb soil or streambanks. Sediment delivery will eventually be reduced by large increases in watershed and streambank improvements. Alternatives 9 and 11 may initially show a slight increase in sediment delivery, but will result in a net decrease in sediment by the end of the planning period. Alternative 4 will show a continuous decrease in sediment delivery due to large increases in improvement projects.

#### Long-term Productivity

Maintaining long-term soil productivity is a major goal of the Forest, as all activities and outputs are ultimately dependent upon sustained productivity. The determination of the loss of productivity is the total of the following three acreages: 1) Acres identified as part of the soil and water resource improvement needs backlog, 2) acres permanently taken out of productivity, and 3) acres where established soil loss tolerance levels (t values) are exceeded. Acreage to be improved by watershed improvement projects and acres permanently taken out of productivity, such as acres committed to permanent roads, buildings, etc., have been inventoried. Areas of the Forest where T-values are currently exceeded are not yet inventoried. The total is assumed to be minor and would be the same for all alternatives. Table IV-23 therefore, is calculated based upon the acreage identified by the first two items only. In all cases, more than 97 percent of the land base will have its soil productivity maintained for the long term. In most instances, the percentage maintained improves over time. This indicates that watershed improvement projects will be

accomplished at a faster pace than land will be taken out of permanent productivity through the construction of new roads and facilities. Alternatives 4, 6, 8 and 10 will provide for the highest level of maintained productivity with alternatives 1, 5, 9 and 11 providing a slight but steady improvement in long term productivity. Alternatives 2, 3 and 7 provide for no improvement in productivity.

Effects on Prime Farmlands

There are no prime farmlands on the Fishlake National Forest. None of the alternatives will affect prime farmlands near Forest lands.

Effects on Wetlands and Flood Plains

There are scattered areas of wetlands and floodplains comprising 2.5 percent of the Forest. Forest direction, standards and guidelines contained in the Forest Plan, give specific direction for the management of these areas. Forest management activities in any wetland, riparian area, or floodplain will be designed to prevent long and short-term adverse impacts, in accordance with Executive Orders 11988 and 11990, and the direction outlined in the Forest Service Manual, sections 2526, 2527 and 2633.

Alternative 4 will result in the greatest benefit to riparian areas by providing more emphasis to management of livestock and more fisheries improvements. Alternatives 5 and 10 will result in an initial negative impact to riparian areas as watershed restoration and stream improvement projects will not take effect immediately. In the long run, alternative 3 will have the least beneficial effect.

TABLE IV-20  
WATERSHED IMPROVEMENT PROJECT ACRES  
(ANNUAL ACRES TREATED)

Alternatives	DECADE				
	1	2	3	4	5
1	180	180	180	180	180
2	0	90	90	90	90
3	0	0	0	0	0
4	543	730	730	730	730
5	260	403	403	403	403
6	483	597	597	597	597
7	0	0	0	0	0
8	260	523	523	523	523
9	300	414	414	414	414
10	546	694	694	694	694
11	300	414	414	414	414

TABLE IV-21  
 AVERAGE WATER YIELD INCREASE PER YEAR IN M. ACRE FEET  
 OVER NATURAL RESULTING FROM TIMBER HARVEST\*

ALTERNATIVE	DECADE				
	1	2	3	4	5
1	.053	.169	.169	.169	.169
2	.159	.159	.159	.159	.159
3	.053	.099	.099	.099	.099
4	.032	.103	.103	.103	.103
5	.190	.190	.190	.190	.190
6	.194	.194	.194	.194	.194
7	.012	.071	.071	.071	.071
8	.173	.173	.173	.173	.173
9	.177	.177	.177	.177	.177
10	.95	.195	.216	.249	.281
11	.177	.177	.177	.177	.177

\*Water yield increase is for the entire Forest. Water yield increase to the Colorado River would be 20% of the above figures.

TABLE IV-22  
 NET REDUCTION IN ONSITE EROSION ASSOCIATED WITH  
 MANAGEMENT, CONSIDERING SITE MODIFYING ACTIVITIES  
 (UNITS IN M TONS)

ALTERNATIVE	DECADE				
	1	2	3	4	5
1	3.2	.7	.5	.9	.6
2	9.6	10.6	10.6	10.5	10.9
3	5.5	4.0	4.2	4.0	4.3
4	19.0	18.0	18.4	18.1	18.4
5	24.4	24.1	25.8	33.4	33.2
6	12.9	18.1	18.6	18.1	18.7
7	2.9	1.5	1.8	1.6	1.8
8	7.2	7.9	8.2	7.6	8.5
9	17.5	19.5	28.1	19.5	28.1
10	8.3	15.7	12.7	14.4	22.8
11	17.5	19.5	28.1	19.5	28.1

\*Site modifying activities included are:

Activities Resulting  
 in Net Reduction

Range Nonstructural  
 Improvements  
 Soil & Water Improvements  
 Range Structural Improvements  
 Fish Structural Improvements

Activities Which Increase  
 Soil Loss

Timber harvest  
 Road Construction and  
 Reconstruction

TABLE IV-23  
PERCENT OF FOREST WITH MAINTAINED  
LONG TERM SOIL PRODUCTIVITY

ALTERNATIVE	DECADE				
	1	2	3	4	5
1	97.2	97.8	98.0	98.1	98.2
2	97.6	97.7	97.7	97.8	97.8
3	97.6	97.6	97.6	97.6	97.6
4	98.0	98.5	99.0	99.5	99.5
5	97.8	98.1	98.3	98.6	98.9
6	97.9	98.4	98.8	99.2	99.6
7	97.6	97.6	97.6	97.6	97.6
8	97.8	98.2	98.5	98.9	99.3
9	97.8	98.1	98.4	98.7	99.0
10	98.0	98.5	99.0	99.4	99.4
11	97.8	98.1	98.4	98.7	99.0

#### Unavoidable Adverse Effects

Under all alternatives some watershed areas will remain in a deteriorated condition or will deteriorate further before rehabilitation practices can be applied. Alternatives with low budgets for soil and watershed will be the worst in this regard. This deterioration will produce additional erosion and sediment. Furthermore, some riparian areas will deteriorate further if not protected. Increased use of ORV's plus deterioration of roads and trails will increase erosion and the production of sediment in streams.

#### Short-term Uses vs Long-term Productivity

Watershed treatment practices generally involve the removal of existing vegetative cover. The short-term effect on the soils is negative, but the anticipated long-term effect is positive, as improved ground cover should lead to decreased onsite erosion.

#### Irreversible and Irretrievable Commitment of Resources

None of the alternatives totally eliminate soil erosion, nor is this necessarily a desirable goal. Tables IV-22 and IV-23 indicate the amounts of improvements anticipated in each alternative. Those percentages of the Forest where long term soil productivity is not maintained or onsite erosion is not reduced could be considered an irretrievable loss.

## 6. MINERALS

The environmental effects of developing mineral and energy resources will vary with the method of extraction and the amount of land disturbed. Geophysical surveys, drilling, and extraction operations all produce noise and sights foreign to wildlands. Mineral activities entail construction of access roads, well and mine-portal sites, electrical, fluid and gas transmission lines and industrial facilities. The unavoidable impacts of minerals and energy resources operations that could be affected under implementation of all alternatives include:

Preemption or restriction of land from uses such as wildlife habitat, recreational use, grazing, etc.

Alteration of topographic features and change in visual character of landscape due to implementation of mineral operations and associated ancillary facilities.

Land subsidence and increased seismicity resulting from underground mining activities and production of fluids and the reinjection of fluid wastes into producing zones.

Noise problems associated with testing and production of geothermal resources.

Noxious gas and fluids emissions causing degradation of air and water quality.

Reduction of water quality due to increase in total dissolved and suspended solids.

Disruption of aquifers and reduction of their long-term productivity.

Increased demand for industrial and municipal water causing water price increases and economic problems for agricultural water users.

Heavier average daily traffic on transportation arteries generating a need for additional transportation facilities.

Destruction of existing vegetation on sites cleared, causing the loss or temporary displacement of wildlife habitat and other resource values.

Conversion of agricultural land to residential, commercial or industrial uses in the vicinity of operations.

Loss or disturbance of unidentified archeological, paleontological, and historical sites and values.

Depletion of a nonrenewable mineral or energy resource.

Loss of wilderness resource in areas that might be considered for wilderness proposals in future plan revisions.

Significant increase in human population will create adverse impacts in surrounding communities.

Increased motorized recreational opportunities through road development.

Increased opportunities for putting land to a higher or more beneficial use than existed prior to mineral activities, through employment of interim and final rehabilitation measures.

Discovery and utilization of minerals necessary for welfare of the Nation.

### Locatable Minerals

The existing area under mining claims does not vary between alternatives. The area available for exploration and development under the laws governing locatable minerals is the same under each alternative. Lands withdrawn from operation under the 1872 mining law include 12,367 acres composed of roadside zones, watershed protection areas, and recreation and administrative sites.

### Leasable Minerals

The area under lease does not vary between alternatives. The minerals and energy industry is affected by decisions made by the Forest Service in land management planning, primarily through management direction and prescriptions affecting the opportunity to explore for and develop the mineral or energy resource.

The Forest is using a format developed for displaying acreages, by alternative, of the potential for oil and gas and the limitations to exploration and development imposed by the goals, objectives, and management direction of the specific alternative evaluated. This format displays the effects of the various alternatives on the availability of the oil and gas resource.

In determining the geologic potential, the following categories are considered:

Low - Presence of very few geologic characteristics favorable for the occurrence of oil and gas; areas not explored using seismic methods.

Medium - Presence of some geologic characteristics favorable for the occurrence of oil and gas; areas explored using seismic means.

High - Presence of a number of geologic characteristics indicating the occurrence of oil and gas; areas containing discovery or field.

Of the 1,424,479 acres of the Fishlake National Forest, 514,979 acres are identified as having a low potential for oil and gas resources. The remaining 909,500 acres are considered as medium in potential. Discovery or continuation of geologic features from a known discovery area would be necessary to meet the "high potential" requirements.

Land management planning encourages or discourages minerals activity by imposing constraints on access. These constraints are to mitigate potential adverse effects to other resources and range from total withdrawal from leasing, to no surface occupancy, to the most permissive case which contains only standard stipulations. The mix of acres in each category of restriction will change according to the planning alternative being considered (see Table IV-24).

TABLE IV-24  
 ANTICIPATED IMPACTS ON AVAILABILITY OF  
 OIL AND GAS RESOURCES BY ALTERNATIVES

ALTERNATIVE 1

<u>Access Restriction</u> 1/	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	4,821	68,035	72,856
Moderate	58,524	511,880	570,404
Low	451,634	329,585	781,219
TOTAL ACREAGE	514,979	909,500	1,424,479

ALTERNATIVE 2

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	16,483	154,647	171,130
Moderate	176,064	428,596	604,660
Low	322,432	326,257	648,689
TOTAL ACREAGE	514,979	909,500	1,424,479

ALTERNATIVE 3

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	69	145,868	145,937
Moderate	257,039	334,234	591,273
Low	257,871	429,398	687,269
TOTAL ACREAGE	514,979	909,500	1,424,479

ALTERNATIVE 4

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	79,117	227,485	306,602
Moderate	308,877	320,716	621,593
Low	134,985	361,299	496,284
TOTAL ACREAGE	514,979	909,500	1,424,479

TABLE IV-24 (cont)

## ALTERNATIVE 5

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	7,535	47,292	54,827
Moderate	297,311	207,359	504,670
Low	210,133	654,849	864,982
TOTAL ACREAGE	514,979	909,500	1,424,479

## ALTERNATIVE 6

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	5,049	49,173	54,222
Moderate	340,291	294,987	635,278
Low	169,639	565,340	734,979
TOTAL ACREAGE	514,979	909,500	1,424,479

## ALTERNATIVE 7

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	62,695	313,635	376,330
Moderate	321,201	310,178	631,379
Low	131,083	285,687	416,770
TOTAL ACREAGE	514,979	909,500	1,424,479

## ALTERNATIVE 8

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	6,555	51,244	57,799
Moderate	321,504	279,983	601,487
Low	186,920	578,273	765,193
TOTAL ACREAGE	514,979	909,500	1,424,479

TABLE IV-24 (cont)

## ALTERNATIVE 9

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	5,136	58,668	63,804
Moderate	384,745	240,902	625,647
Low	125,098	609,930	735,028
TOTAL ACREAGE	514,979	909,500	1,424,479

## ALTERNATIVE 10

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	-	-	-
High	166	40,962	41,128
Moderate	249,381	313,753	563,134
Low	265,432	554,785	820,217
TOTAL ACREAGE	514,979	909,500	1,424,479

## ALTERNATIVE 11

<u>Access Restriction</u>	<u>Geologic Potential</u>		<u>TOTAL ACREAGE</u>
	<u>Low</u>	<u>Medium</u>	
Total	20,294	1,200	21,494
High	2,090	71,020	73,110
Moderate	331,239	202,919	534,158
Low	161,356	634,361	795,717
TOTAL ACREAGE	514,979	909,500	1,424,479

1/ "Access Restrictions" are explained as follows:

- Total - Statutory or discretionary withdrawals with no leasing permitted. Includes Wilderness, Wilderness proposals and may include other special areas such as formal municipal watersheds (closed to entry) and Research Natural Areas.
- High - Recommendations usually contain "no surface occupancy" stipulation. Area contains prohibitively steep slopes, other fragile environmental factors or T&E species. Restrictions are usually yearlong.
- Moderate - Leases usually show seasonal stipulations for road-building controls, hunting areas, seasonal mud, lambing or calving, strutting grounds, summer or winter wildlife forage, etc., Short-term impacts permitted if rehabilitated.
- Low - Leasable with standard stipulations only; access unrestricted by any surface resource. Reasonable surface damage can be tolerated.

The Forest contains no lands which are formally withdrawn from operation of the mineral leasing laws (total access Restriction category).

However, 17,194 acres designated under prescription 3B (non-motorized recreation), and 4,300 acres designated as Research Natural Area (prescription 10A) have total access restriction. Oil and gas leasing is allowed within these areas, but, with the stipulation of no surface occupancy. Application to have the Research Natural Areas withdrawn from mineral entry will be made.

The amount of area where leasing would be permitted with high restrictions on access is summarized in Table IV-25 and is used to demonstrate the difference between alternatives:

TABLE IV-25  
HIGH ACCESS RESTRICTION AREA SUMMARY  
BY ALTERNATIVES  
FOR OIL AND GAS LEASING

ALTERNATIVE	LOW GEOLOGIC POTENTIAL Area (514,979 A.)		MEDIUM GEOLOGIC POTENTIAL Area (909,500 A.)		LOW & MEDIUM GEOLOGIC POTENTIAL AREA (1,424,479 A.)	
	Affected Acreage	% of Total	Affected Acreage	% of Total	Affected Acreage	% of Total
1	4,821	0.9	68,035	7.4	72,856	5.1
2	16,483	3.2	154,647	17.0	171,130	12.0
3	69	>0.1	145,868	16.0	145,937	10.2
4	79,117	15.4	227,485	25.0	306,602	21.5
5	7,535	1.5	47,292	5.2	54,827	3.9
6	5,049	1.0	49,173	5.4	54,222	3.8
7	62,695	12.2	313,635	34.5	376,330	25.8
8	6,555	1.3	51,244	5.6	57,799	4.1
9	5,136	1.0	58,668	6.5	63,804	4.5
10	166	>0.1	40,962	4.5	41,128	2.9
11	2,090	0.4	71,020	7.8	73,110	5.1

In comparing the amount of land with high access restrictions, alternatives 5, 6, and 10 have the least acreage of medium potential lands affected. Alternatives 2, 4, and 7 have the largest acreage of medium and low potential lands where oil and gas operations would be affected. The same correlation is true for the overall Forest acreage.

In considering the coal resource of the Forest, all alternatives are the same in amount of area available for future leasing. Of the 81,534 acres of Forest land identified in the Forest's 1984 Coal Lands Review as having a high to moderate potential for coal development, all are acceptable for further consideration for coal leasing, subject to area-wide limitations and multiple use coordination requirements.

Considering the 183,560 acres of Forest land identified as having a potential for geothermal resources, all alternatives are the same in availability for leasing of geothermal resources.

#### Saleable Minerals

The deposits of common variety materials having potential for development are present throughout the Forest. The availability of the areas containing these deposits falls into much the same category as the locatable minerals. Those areas not available for location would not normally be available for operations involving common variety materials.

#### Short-term vs. Long-Term Effects

Impacts of mineral and energy resource exploration and development vary in duration. Even though leases are issued for a term of 10 years, they are extended for producing operations. Generally, mining operations are designed to have a life of around 40 years, depending on the amount of material available, market, and other factors. Locatable mineral operations are generally long-term commitments and can result in land patent and transfer to private ownership. Geothermal operations may go for 20 to 50 years before the resource is depleted.

(1) Vegetation resource: Most vegetation can be reestablished in a short time, but sensitive species with small localized populations may be lost permanently. Removal of high alpine vegetation will have a long-term adverse effect.

(2) Soil resource: If vegetation is removed from an area, serious soil erosion may result. Exposure of sensitive soils can result in erosion or mass movement. This would be a long-term effect requiring many years to heal.

(3) Hydrology and water quality: A minor increase in runoff could be expected from any mineral development. This runoff may add sediment to streams, a short-term effect. Effects can be held to a minimum if proper procedures are followed.

(4) Cultural-archeological and historic resources: These resources are not expected to be affected unless an unintentional disturbance occurs. If unintentionally disturbed, damage would be permanent.

(5) Wildlife and fish habitat: Most impacts on wildlife and fish are short-term. Site rehabilitation can usually restore the long-term productivity of these habitats. If cumulative impacts create total loss of wildlife or fish habitats, the impact will be long-term.

(6) Recreation: Noise, air pollution, and visual intrusion are short-term impacts that return to normal following termination of the activity. Impacts on recreation opportunities are generally short-term unless roads remain open. That changes the type of recreation opportunities available over the long-term.

(7) Range: Impacts on livestock operations are short-term.

(8) Social: Change brought by mineral development usually creates an abrupt short-term impact to local communities. Communities then gradually adjust over a period of time followed by long-term stability until the end of mineral production, which again causes an abrupt short-term social change.

#### Irreversible and Irretrievable Commitment of Resources

Extraction of mineral or energy resources is itself an irreversible and irretrievable commitment. Removal of mineral resources is permanent. Once removed, minerals cannot be replaced.

Annually 2.2 million tons of coal are removed from the Forest. One million tons of quartz, shale, and limestone combined are removed and used to produce 0.65 million tons of cement. Approximately 3,200 tons of common minerals are removed and 3,000 tons of kaolinite clay are removed annually from the Forest. These are all irreversible and irretrievable commitments of resources and will not change with alternatives.

Major soil loss due to erosion or mass soil movement is an irreversible degradation of productivity. Soils with high erosion potential and steep slopes should be avoided or receive special mitigation practices.

Should a wildlife or fish habitat be lost due to cumulative impacts, the action may be irreversible. If suitable habitat can be restored, the loss may be mitigated by transplanting from other populations. Loss of threatened and endangered species could be irretrievable.

Mineral activity in areas that are currently undeveloped could destroy the wilderness character of such areas and preclude them from being considered for wilderness in the future.

Loss of a cultural resource site due to mineral activity is irreversible.

Mineral impacts to water resources, vegetation, visual conditions, and recreation opportunities are not expected to be irreversible or irretrievable.

## 7. HUMAN AND COMMUNITY DEVELOPMENT

The human resource programs of the Fishlake National Forest are affected by the budget level rather than the resource management allocations of the alternatives. Under all alternatives, the Forest will attempt to utilize volunteers and the Senior Citizens Service Employment Program (SCSEP) to the fullest extent. The Youth Conservation Corps (YCC) has provided valuable help to the Forest in the past, but funding for both YCC and SCSEP are determined at the national level, so they are not included in the alternatives.

## 8. LANDS

### Land Ownership

Some factors relating to ownership adjustment are a result of Forest Service activity and thus vary by alternative. Other factors are external to forest management but also influence the lands program. Private and other government entities have needs which require a responsive program to handle donations, exchanges and title claims.

Funding of the lands program and the amount of activity generated by resource programs (timber, grazing, and recreation, etc.) are two significant factors. Alternatives with no or low funding of the lands program will not be responsive to societal and Forest management needs. High resource activity alternatives have balanced funding and provide for an adequate program.

Land ownership adjustment is directed toward resolving intermingled land management problems and improves management efficiency. Lands with moderate and high public values are retained or sought in exchanges.

Cooperation of other land owners to adopt land uses compatible with the Forest environment will help resolve conflicts. Land use regulations and enforcement to obtain compliance by state and county governments can promote compatible land uses.

### Rights-of-Way:

Under alternatives 1, 2, 4, 6, and 8, right-of-ways will be acquired as needed to accomplish project activities. Public access would be somewhat improved over the present situation.

Under alternatives 3 and 7, there would be no right-of-way acquisition program, and public access would not change from the present.

Under alternatives 5, 9, 10 and 11 an active right-of-way program would eventually obtain all needed access across private and State lands necessary for access to public lands.

## Special Uses

Requests for the use of National Forest lands for special purposes are received from private individuals and organizations and other Federal, State, and local governments. Permitted uses and the rate of applications for new uses are independent of the alternatives. Differences between alternatives include the ability to administer existing permits and process new applications. Special uses would be permitted in each alternative on lands where they are compatible with the management direction for the area. Alternatives 1, 3 and 7 pose the greatest risk of adverse environmental impact because of inadequate funding to properly administer permits.

Before a permit is issued, the proposed use is evaluated to identify and develop a solution to avoid or mitigate adverse impacts. Depending on the type and amount, the use can degrade visual quality, damage vegetation, disturb soil and displace wildlife during construction phase. The operation phase can also have effects on the environment, though they are usually minor.

The Forest expects some increase in interest in development of hydropower. Impacts would be the same for all alternatives. Hydropower uses would dewater some streams or reduce flow, causing loss of aquatic life and some degradation of riparian zones. Forest Service claims for instream water may be challenged.

## Transportation and Utility Corridors

With the exception of those alternatives where the assignment of non-development prescriptions slightly restricted potential corridor windows, the designation of potential transportation corridors and corridor windows remained constant across the alternatives. The main difference in transportation planning caused by the different alternatives is the size of the areas with nondevelopment prescriptions that would limit transportation facility construction. Table IV-26 shows the approximate area of these areas by alternative.

TABLE IV-26  
AVOIDANCE AREAS FOR TRANSPORTATION  
AND UTILITY CORRIDORS

<u>Alt.</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>
M Acres	88.2	360.0	276.0	565.1	86.7	149.4	753.2	147.7	168.6	108.9	130.4

Avoidance areas that are constant in all alternatives are the existing Partridge Mountain Research Natural Area and the valley of Fish Lake. Those that vary between alternatives are the proposed Research Natural Areas and those assigned nonmotorized prescriptions.

The Forest expects to receive requests for new transportation and utility corridors and an increase of activity within existing corridors.

The principal consequences of activities in corridors are adverse impacts on soils, water, and scenery. Problems associated with utility development are inconvenience to the public, construction difficulty, and management of ORV use.

Appendix G to the Forest Plan displays an evaluation of corridors in more detail.

### Special Areas

The Fishlake National Forest contains one existing Research Natural Area (RNA), Partridge Mountain. This 1,200 acre area was established in 1978 to protect a nearly pristine area of mountain brush habitat for future research.

As part of the planning process, a search was made of pristine areas located on the Forest. The results of this review are documented in the planning process records at the Forest Supervisors Office. The preferred alternative recommends that two areas located in the Tushar Mountains, Fish Creek and Bullion Canyon, be considered for establishment as RNA's through the establishment report process. Until a decision is made through this process they will be managed to retain their pristine character. Several alternatives were considered that did not propose these two areas for RNA's (see attached alternative maps). Regardless of what prescription was assigned to the two areas, the environmental consequences would not be significantly different. Difficult access and a general lack of forage or suitable timber resources limit development potential.

The U. S. Geological Survey has indicated that there is a high mineral potential in the Tushar Mountains where Fish Creek and Bullion Pasture RNA's are located (Steven and Morris, 1984). Designation of these two areas as RNA's does not constitute a mineral withdrawal. The decision to establish a RNA and the decision to withdraw an area from mineral entry are two distinct and separate decisions. Therefore, the designation of either of these two areas as RNA's does not constitute an irretrievable or irrevocable commitment of the mineral resource. It would, however, make discovery more difficult and could heighten a potential conflict over mineral development.

No recommendations were made in the Forest Plan for the establishment of any National Natural Landmarks. Several potential areas are on the Forest, but they are of such a nature that normal management would have no effect on them.

### Unavoidable Adverse Effects

Some adverse effects will occur under all alternatives.

Utility and special use construction and operation will disturb vegetation and soils. The resulting facilities may alter the scenic quality of sites. Special uses can interfere with other uses of the National Forest and may reduce the opportunities for recreation. If Forest Service claims for instream water are denied, loss of aquatic life and stream channel narrowing will result from hydropower projects.

### Short-term Uses vs. Long-term Productivity

Most land activities will have the same effects on short and long-term use. A few special uses have short duration, but most of them occupy their sites for 20 years or longer.

Any impact of special use on National Forest land is usually intense during the short construction phase, but only moderately affects the long-term productivity of the land. However, a hydropower development could have long-term effects.

### Irreversible and Irretrievable Commitments of Resources

Commitment of National Forest land to a special use is usually long-term. Some types of facilities (e.g., an electronics tower) can easily be removed and the land restored. Other facilities, such as highways and hydropower developments, alter the land to a greater extent, making rehabilitation difficult and expensive. Occupancy trespass does not usually create an irreversible or irretrievable commitment of National Forest lands.

Acquisition of land through purchase, donation, or exchange is considered an irretrievable action. Returning land to its original owner would defeat the purpose of the acquisition. However, changing policies may dictate transferring some of the acquired land back to private ownership in exchange for lands having greater public value. This change of ownership is not irreversible.

## 9. WILDERNESS

The Forest had a total of 735,320 acres that met the minimum requirement for wilderness consideration prior to passage of the 1984 Utah Wilderness Act (PL 98-428). This act did not designate any wilderness areas on the Fishlake National Forest.

### Irreversible and Irretrievable Commitment of Resources

Lands currently meeting the Wilderness criteria, that are developed during the first decade of Plan implementation, are an irretrievable commitment of the wilderness resource to other uses. Table IV-27 shows the estimated acres of potential wilderness lands that would be developed by timber sales and their attendant roads during the first decade.

TABLE IV-27  
POTENTIAL WILDERNESS ACRES DEVELOPED BY TIMBER SALES  
AND THEIR ANCILLARY ROADS DURING THE FIRST DECADE

<u>Alt.</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>
acres	1,600	3,300	1,500	1,100	3,000	1,600	0	1,800	1,700	1,700	2,000

## Area Meeting The Minimum Wilderness Criteria

Roadless areas with mineral potential may be developed but specific locations and impacts are unknown at this time. Therefore the effects on the wilderness resource cannot be estimated. Other activities may be proposed after the Forest Plan is implemented, such as utility corridors and other special land uses that may affect the wilderness resource.

Although the preferred alternative does not recommend acres for wilderness designation, it does not foreclose future evaluations in the next major Plan revision. Based upon development activities in the preferred alternative and estimating unforeseen developments based on past experience, it is estimated that in excess of 720,000 acres will remain roadless and undeveloped and available for wilderness consideration.

## 10. FACILITIES

### Administrative Sites and Buildings

Alternatives 1, 3, 6 and 7 do not include an adequate program for repair and preventive maintenance of buildings and other facilities, causing continued deterioration in their condition. Several administrative sites will be closed and cuts made in warehouse and storage facilities under these alternatives.

Alternatives 2, 4, 5, 8, 9 and 11 would include preventive maintenance and repair, but cutbacks in the number of existing administrative site facilities would be made in order to keep the remaining facilities in suitable condition.

Alternative 10 would represent a substantial increase in the facilities budget and could bring most of the existing facilities up to an acceptable level of repair and performance.

A cutback in the number of existing administrative facilities is likely regardless of which alternative is considered, due to better forest access and changed working conditions and needs since most sites were established. No alternative has a yearly budget large enough to finance replacement and new construction of major buildings.

Under the provisions of the National Historic Preservation Act of 1966 (36 CFR 800.3), the effects of the "cutback" in the number of existing administrative facilities must be determined for appropriate properties. Appropriate properties are those that are at least 50 years of age and/or represent a Civilian Conservation Corps construction project from the 1930's. As with any cultural resource, the property will be evaluated for eligibility to the National Register of Historic Places. Adverse effects to significant properties will be mitigated by data recovery plans.

## Transportation

### Maintenance - First Decade

Alternatives 3 and 7 provide for road maintenance at a level which is approximately 2/3 of the current level. Under these alternatives only about one quarter of the system receives annual maintenance. The road system will rapidly deteriorate.

Alternatives 1, 4, and 8 would provide for road maintenance at the current level. About 1/3 of the system would receive annual maintenance. The collector road system and major local roads will continue to deteriorate. Maintenance costs will increase, resulting in poorer maintenance and a decrease in miles maintained. Generally under these alternatives, roads will eventually become unsafe and contribute to resource damage. As local or primitive roads become more impassible, new routes would be pioneered by users or use would be limited to 4-wheel drive or all-terrain vehicles. Most primitive roads evolved from wagon roads or off road vehicle tracks and were never constructed to a maintainable standard. Maintenance often accelerates deterioration on these roads by lowering the road grade below the surrounding terrain. Permanent or seasonal closures on many roads will have to be implemented under these alternatives.

Alternatives 2, 5, 6, 9, and 11 would provide for road maintenance somewhat above the current level. About forty percent of the system would receive annual maintenance. Maintenance emphasis would be on roads supporting the timber program while other roads will continue to deteriorate. Traffic will be restricted on roads not constructed to an all-weather standard. Rebuilding, closing, or abandoning substandard local roads will be emphasized. This program will reduce the safety problems and resource degradation associated with these roads.

Alternative 10 would provide for the development and maintenance of an efficient, safe and environmentally sound road system.

### Maintenance - Out Decades

In future decades maintenance levels for alternatives 1, 3, 5, 7, and 8 would not change. Environmental effects of implementation would be the same as previously stated for the first decade.

Levels of maintenance in alternatives 2, 4, and 6 increase to accommodate approximately half of the system in out decades. However, since alternative 4 would require the closing of some roads to meet wildlife objectives, maintenance on the remainder of the system would be at a level somewhat higher than alternatives 2 and 6.

In alternatives 9 and 11 maintenance would decrease to current levels in the out decades. Effects would be the same as those stated for alternatives 1, 4, and 8 in the first decade.

Although maintenance level would increase somewhat in the out decades, alternative 10 would continue to accommodate all road maintenance needs.

Projected road maintenance miles by alternative and decade are listed in Table IV-28.

TABLE IV-28  
PROJECTED ROAD MAINTENANCE  
(Base mileage for Forest Service maintenance taken  
at 1983 level of 703 miles actually maintained)

Alternative	Projected Miles Maintained Per Year				
	1	2	3	4	5
1	667	667	667	667	667
2	742	946	946	946	946
3	445	445	445	445	445
4	667	896	896	896	896
5	742	786	786	786	786
6	742	917	917	917	917
7	445	445	445	445	445
8	697	697	697	697	697
9	742	664	664	664	667
10	*1483	*1886	*1886	*1886	*1886
11	741	664	664	664	667

\*Includes all system roads on present inventory.

#### Construction and Reconstruction - All Decades

No alternative adequately provides for construction and reconstruction of arterial and collector roads, since costs are beyond existing budgets and constraints. A proposed reconstruction schedule of these roads based on a 40 year useful life is included in Appendix J of the Forest Plan for informational purposes. Adequate funding would not be available under any alternative for a program this ambitious.

No alternative provides for bridge replacement or construction as part of the Forest budget. Alternatives 2, 4, 5, 6, 9, 10, and 11 would provide some money for maintenance and repair of existing structures. Bridge deterioration would be expected under alternatives 1, 3, 7, and 8.

Each alternative considered roads for access to private property, recreation, timber harvest, grazing, mineral development and other resource management activities, including road management. Alternatives 1, 3, 7, and 8 would need a small amount of local road construction to meet project requirements.

Projected road construction and reconstruction by alternative and decade is listed in Table IV-29.

## Dams

Under high budget alternatives, including alternatives 4, 5, 6, 9, 10, and 11, eight dams are proposed for reconstruction with wildlife funds. These projects will increase water storage in the project area, improve habitat capability for fish, and increase recreation opportunities. There will be short-term increases in ground disturbance and some decrease in water quality during project construction. Under the other alternatives no dam reconstruction is proposed.

TABLE IV-29  
ROAD CONSTRUCTION AND RECONSTRUCTION  
MILES PER DECADE

Altern- ative		Decade				
		1	2	3	4	5
1	Arterial Collector	0	0	0	0	0
	Local	4.6	23.4	28.5	17.2	23.7
2	Arterial Collector	0	0	0	0	0
	*Local	19.3	19.0	24.4	23.4	22.8
	**Road Betterment	13.0	13.0	13.0	13.0	13.0
3	Arterial Collector	0	0	0	0	0
	*Local	4.3	8.3	12.0	8.3	8.7
4	Arterial Collector	0	0	0	0	0
	*Local	3.4	12.0	16.5	7.0	9.6
	**Road Betterment	13.0	13.0	13.0	13.0	13.0
5	Arterial Collector	0	0.1	0.1	0.1	0.1
	*Local	17.2	31.7	32.0	40.4	31.6
	**Road Betterment	13.0	13.0	13.0	13.0	13.0
6	Arterial Collector	0	0.1	0.1	0.1	0.1
	*Local	18.5	27.6	30.5	26.4	24.9
	**Road Betterment	13.0	13.0	13.0	13.0	13.0
7	Arterial Collector	0	0	0	0	0
	*Local	1.7	9.6	10.2	6.8	8.5
8	Arterial Collector	0	0	0	0	0
	*Local	15.2	24.3	28.4	23.0	24.2
	**Road Betterment	13.0	13.0	13.0	13.0	13.0
9	Arterial Collector	0	0.1	0.1	0.1	0.1
	*Local	16.3	25.7	29.1	26.7	9.1
	**Road Betterment	13.0	13.0	13.0	13.0	13.0
10	Arterial Collector	0	0	0	0	0
	*Local	17.2	29.4	35.8	44.3	39.9
	**Road Betterment	13.0	13.0	13.0	13.0	13.0
11	Arterial Collector	0	0.1	0.1	0.1	0.1
	*Local	6.4	19.2	21.3	37.4	19.1
	**Road Betterment	13.0	13.0	13.0	13.0	13.0

\*Local roads include timber purchaser road construction

\*\*Road Betterment includes heavy maintenance and spot reconstruction on local roads.

### Unavoidable Adverse Effects

Use of roads when wet, particularly during late fall and early spring, causes considerable damage and loss of maintenance investment. Reconstruction or construction of roads may increase traffic enough to disturb wildlife and cause resource damage. These effects can be reduced by seasonal area closures and/or betterment such as surfacing, drainage improvement, revegetation, relocation, etc.

Road construction and reconstruction will temporarily increase soil movement, but this effect will be reduced as slopes and ditches revegetate and stabilize. When roads are constructed in semiprimitive, motorized or semiprimitive, nonmotorized areas, the Recreational Opportunity Spectrum (ROS) classification changes to roaded natural.

Dam reconstruction will temporarily increase ground disturbance and soil movement. There may be some short term increases in sediment delivered to the reservoirs or streams involved in the projects. These impacts will be mitigated by revegetating all borrow sites and disturbed areas.

### Short-term Use vs. Long-term Productivity

Roads do not significantly affect long-term productivity of the Forest, because of the relatively small percentage of the total Forest acreage encumbered.

### Irreversible and Irretrievable Commitments of Resources

Roads and administrative sites can be obliterated and the land returned to productivity. Obliterating roads constructed with extensive cuts and fills may not be possible. The time required to accomplish this depends somewhat on how much is spent to do it. Roads built in presently unroaded areas may prevent future consideration of those areas as wilderness.

## 11. PROTECTION

The protection element includes forest and rangeland pest management, fire management, and air quality protection.

### Forest Pests

The Fishlake's most significant insect and disease losses are associated primarily with unmanaged timber stands. For the most part, the more harvesting an alternative provides, the lower are the losses due to insects and disease and the less the chance of catastrophic losses due to these factors. This is especially true with mountain pine beetle, dwarf mistletoe, and rots. Avoidance of Engelmann spruce beetle losses is more a matter of prompt and adequate salvage and debris treatment. With western spruce budworm, the greatest losses will be in younger stands.

Alternative 7 would have the highest level of insect and disease activity along with a high risk of catastrophic occurrences. Extensive periodic control measures will be needed to prevent spread onto other ownerships. Alternatives 1, 3, and 8 will result in continued or slightly decreased

losses due to insects and disease compared to the current situation. Periodic control measures will be necessary primarily for mountain pine and Engelmann spruce beetle. These alternatives have a moderate chance of catastrophic insect and disease occurrences. Alternatives 6, 9 and 11 will result in reduced losses and chance of catastrophic occurrences compared to present levels. Alternative 4 will result in a moderate reduction of these losses. A significant reduction in losses to insects, and particularly disease, occurs with alternatives 2 and 5. Chances of catastrophic occurrences are also light. Losses to insects and disease would be minimized under alternative 10.

Periodic inspection for insect and disease outbreaks in spruce fir stands is needed. Except for alternatives 1, 3, and 7, increased monitoring will be necessary starting in the second decade for all alternatives. In general, the larger the acreage harvested, the more area will need to be monitored for insects and disease.

### Rangeland Pests

Grasshoppers and Mormon crickets reach epidemic proportions on the Forest cyclicly. When these epidemics occur, the quality and quantity of forage available for livestock and wildlife is decreased. Some sites may have forage values reduced up to 50 percent, but considering the total land base this may be only 10 percent of the total forage on the Forest. Under current management, that would represent approximately 14,000 AUM's.

The amount of treatment that would occur depends primarily on the funding level. Few if any treatments would be made under alternatives 1 and 7. Moderate levels of treatment would be pursued with alternatives 3, 4, 6, 8, 9 and 11. High levels of treatment could be obtained with alternatives 2, 5 and 10.

### Fire Management

Acres burned by wildfire for each alternative were estimated through the use of Level II Fire Management Analysis. During the 1970's the Forest experienced an average annual wildfire burn of 740 acres. With the funding level of alternative 7, approximately 1,300 acres per year would burn. Under alternative 3 funding, wildfire burned acres are reduced to approximately 820 acres. All other alternatives have about 160 acres of burn annually. Limited natural fuels treatment is planned, as fuel loading during the planning period should not be a major problem. Alternatives 3, 7, 9 and 11 have no natural fuels treatment scheduled, while 1, 2, 4, 5, 6 and 8 have 100 acres each. The largest natural fuel treatment program is 260 acres in alternative 10.

Prescribed fire from natural unplanned ignitions will be used in all alternatives outside buffers and special zones. Use of prescribed fire must comply with guidelines for smoke management and state air quality standards.

### Unavoidable Adverse Effects

Wildfires may result in loss of soil, damage to range improvements, wild-life habitat, and timber, and increase the potential for flooding. There is the possibility of loss or damage under any alternative, but the proper treatment of fuels called for in alternatives 1, 2, 4, 5, 6, 8 and especially 10 reduce the risk of damage or loss. Alternatives 3 and 7 present the highest potential for damage or loss.

### Short-term Uses vs. Long-term Productivity

Wildfires are short-term events. In the natural environment, they occur on a cyclic basis and do not affect long-term productivity of the land. Both wildfire and its suppression can affect short-term productivity by altering plant succession, fuel accumulations, nutrient cycles, energy flow, productivity, diversity, and stability of ecosystems. Prescribed fire can be used for short and long-term advantages without reducing long-term productivity.

### Irreversible and Irretrievable Commitment of Resources

Low levels of fire management may result in irretrievable loss of a resource, primarily timber and soils, and off-site damage to private developments.

### Air Quality

None of the alternatives allow significant degradation of air quality. Uncontrolled wildfire produces the most air pollution on the Forest. The State recognizes that wildfires are unavoidable, occur only occasionally, and are of short duration.

Prescribed fires generally produce less air pollution because they are burned at different times and under weather conditions favorable for smoke dispersal.

Increased vehicle travel expected under the higher budget alternatives will add only a very minor volume of additional exhaust fumes and dust into the air.

The Air Quality Classification of the whole Forest remains as Class II in all alternatives.

### Unavoidable Adverse Effects

Under any alternative, smoke from wildfire or prescribed burning will occasionally accumulate in valley bottoms.

### Short-term vs. Long-term Effects

None of the short-term uses (wildfire, prescribed fire, vehicle use) are expected to degrade the quality of the airshed over the Forest over the long-term. Since the airshed is not isolated, it is likely that in the long-term the quality of air moving onto the Forest from adjacent urban areas will have a greater effect than air pollution generated on the Forest itself.

### Irreversible and Irretrievable Commitment of Resources

None of the alternatives will have any irreversible or irretrievable effect upon the Forest's air quality. The effect off-Forest air pollution will have on Forest resources is unknown.

### C. SOCIAL EFFECTS

Some social change could occur in the five counties comprising the zone of influence of Fishlake National Forest with any alternative implemented. This change relates to potential development of mineral resources underlying the Forest and an influx of people seeking a rural life style. While the second factor has produced a slow, steady change, the effects of the first will be geared to the pace of mineral development. The alternatives affect the social descriptors of the Human Resource Units described in Chapter II to varying degrees, but most of the changes and effects are minimal.

#### Social Effects of Alternatives by Human Resource Unit

Richfield and Delta Human Resource Units - None of the alternatives will have major effects on the lifestyles, social organization, attitudes or land uses in these HRU's. In the Delta HRU, this is due to the low rate of participation in activities affected by the alternatives. Recreation at Oak Creek is one of Delta's main uses of the Forest. Richfield HRU has a high proportion of service, industries and retail trade not tied to Forest outputs controlled by the alternatives. Alternatives 2, 4, 5, 6, 9, 10 and 11 would have a slight positive effect due to increased recreation and wildlife opportunities, while alternatives 1, 3, 4 and 7 would have a slight negative effect in this regard.

Beaver and Fillmore Human Resource Units - These Human Resource Units could be moderately affected by the alternatives. Both have an intermediate mix of agricultural and nonagricultural employment. People in the Beaver HRU utilize the Forest for grazing, timber harvest, and recreation. Those in the Fillmore HRU utilize it for grazing and recreation. Thus alternatives such as 1, 3 and 7, which reduce grazing capacity, will have a moderately negative effect on the lifestyles of residents of these two HRU's. Conversely, alternatives which increase outputs will have beneficial effects. In either case the effects will be modulated by non-Forest related employment that has increased over the past 20 years.

Paiute Human Resource Unit - The economy of this HRU is highly dependent on the output of two Forest resources: minerals and range.

In the case of range, alternatives 1, 3, and 7 -- with grazing capacities lower than present -- will have an adverse effect on lifestyles, attitudes and land uses within the HRU. Alternatives 2, 6, 8, 9, and 11 will about maintain the current conditions, and alternatives 5 and 10 will have a beneficial effect.

The effects minerals will have on the HRU is assumed to be partially dependent on the land area available for minerals development. Designation of two small Research Natural Areas in alternatives 5 and 11 might have a slight negative effect, but on the whole effects will depend on the rate minerals are developed. Assignment of nondevelopment prescriptions to significant portions of the Tushar Mountains in alternatives 4 and 7 could hamper mineral development and thus slow the growth rate of the HRU.

Fremont Human Resource Unit - This HRU is most sensitive to the effects of the alternatives of all the HRU's in the Forest's zone of influence. Individuals depend on several Forest outputs in order to maintain their economic base. Many have consciously chosen to forego material benefits in favor of the rural lifestyle available in the area. The economy is highly dependent on the outputs of goods and services from the Forest. Thus alternatives such as 1, 3 and 7, which decrease those outputs, will have strong adverse effects on the lifestyles, values, social organization, population and land use on the HRU. Implementation of alternatives 2, 5, and 10 will probably not lead to significant growth, but to a higher quality of life for present residents. While alternative 4 would lead to increased employment, it would require a significant change in the lifestyle, attitudes and land use of the HRU. Implementation of alternatives 6, 8, 9 and 11 would probably have the least impact on this HRU, with alternative 8 probably having a slightly better impact than the others.

#### Effects On Minorities And Women

Minorities other than women constitute 2.5 percent of the population in the Forest's zone of influence. None of the alternatives should have major effects upon them. On April 3, 1980, Congress adopted the Paiute Indian Tribe of Utah Restoration Act, which allows up to 15,000 acres of reservation land to be established in Beaver, Iron, Washington, Millard and Sevier Counties. As a result of this act, the Paiutes have been granted a permanent special use permit to hold religious ceremonies on 400 acres at the south end of Fish Lake during two periods of two weeks each during the summer. Their use of this land should not have any significant effect on projected outputs.

The Forest Service is an Equal Opportunity Employer and does not discriminate with respect to race, color, religion, sex, national origin, politics, marital status, physical handicap, or age in any activity it carries out.

## D. ECONOMIC EFFECTS

### 1. COST EFFICIENCY ANALYSIS

The planning process, specified in the NFMA regulations, requires consideration of economic efficiency as a basic principle of planning -- 36 CFR 219.1(b)(13); in the formulation of alternatives -- 36 CFR 219.12(f)(8); in estimating the effects of alternatives -- 36 CFR 219.12(g)(3); and in evaluating the alternatives -- 36 CFR 219.12(h). In addition to the NFMA requirements, the congressionally revised Resources Planning Act Statement of Policy states "...forests and rangeland, in all ownerships, should be managed to maximize their net social and economic contributions to the Nation's well being, in an environmentally sound manner..." Further, "The Secretary of Agriculture shall continue his efforts to evaluate the cost-effectiveness of the renewable resource program." The application of Forestwide Management Requirements to all alternatives insures that multiple use management will be applied "in an environmentally sound manner."

The main criterion used in the economic efficiency analysis is present net value. It is defined as discounted benefits less discounted costs, including only those outputs that can be assigned monetary values. In the linear programming model, FORPLAN, each alternative was run to maximize present net value, given the goals and objectives of the alternative. This ensured that the prescription assignment was cost efficient. The optimum alternative is the one that maximizes net public benefits (NPB), defined as the overall value to the nation of all benefits less all associated inputs and costs, regardless of whether or not they can be quantitatively valued.

The economic parameters shown in Tables IV-30 and IV-31 reflect only the monetary portion of the analysis used to evaluate alternatives. Decisionmakers consider public benefits in addition to economic efficiency in the final analysis.

Some resources produced on the forest were valued explicitly in the planning process, others were valued implicitly, and some were not valued at all. The benefits shown in Tables IV-30 and IV-31 are the result of placing specific dollar values on timber, livestock grazing, recreation, wildlife, increased water yield, and minerals. These are the outputs that were explicitly valued in the planning process. Timber values were calculated using Fishlake National Forest timber sale bid prices for timber sold during the period between 1977 and 1983. All other output values were derived from data used in the 1980 RPA and the Regional Guide. All values are in 1978 dollars compounded to 1982.

Certain resources were implicitly valued through their association with resources that were explicitly priced. No dollar value was placed on an acre of suitable wildlife habitat, yet this resource was valued through its association with hunting and nongame recreation activity. Those management activities which improve wildlife habitat were attributed to more wildlife-related recreation visitor days than those which degrade wildlife habitat. In this way, wildlife habitat and diversity were implicitly included in the economic analysis.

Some resources could not be valued either explicitly or implicitly through association with other resources. Examples of such benefits include research benefits of designated research natural areas, the value to future generations of protecting and preserving cultural resources, the benefits of maintaining viable populations of animal species not related to recreation use, and the vicarious satisfaction derived by some individuals who desire the establishment of Research Natural Areas yet who have no intention of visiting these areas.

Economic parameters used in this planning effort can only serve as relative indicators of the benefits to society that would accrue under each alternative. They cannot be interpreted as absolute indicators of total societal benefits.

Table IV-30 shows the benefits and costs of the various alternatives discounted at 4 percent. Table IV-31 shows benefits and costs of the various alternatives discounted at 7 percent. In addition to the above tables one may refer to Tables II-22A & B, II-26, II-27, II-28 and Tables II-10 thru II-20 for a detailed examination of the benefits, costs, and outputs of the various alternatives.

Individuals in the society place different values on resources than the Forest Service or the Fishlake National Forest does. The detail of outputs should help the reader to form their own opinion about the merits of each alternative presented and not rely exclusively on the Fishlake calculation of "net present value."

#### Resource Values

The benefits shown in Tables IV-30 and IV-31 result from placing specific dollar values on timber, livestock forage, developed and dispersed recreation, minerals and water yield outputs. These are the only outputs explicitly valued in the planning process. All values are estimates of "willingness to pay." Timber values were calculated using historical forest level bid prices from timber sold. All other values derive from data used in 1980 RPA and Regional Plan efforts. Values used are in terms of 1982 real dollars, and are displayed in Table II-25.

In the FORPLAN model, only timber, livestock grazing and dispersed recreation were tracked and valued. By using an investment analysis technique known as MIVEST, costs and benefits associated with all the items shown in Tables IV-30 and IV-31 were analyzed. This resulted in present net values that incorporated all types of resource outputs, as well as all Forest Service budgetary costs.

TABLE IV-30

## BENEFITS AND COSTS OF ALTERNATIVES DISCOUNTED AT 4 PERCENT

	MIN. LEVEL	MAX. PNV	ALT. 1	ALT. 2	ALT. 3	ALT. 4	ALT. 5	ALT. 6
Present Net Value	186519.3	452821.9	349741.4	335153.8	347364.1	353287.8	371209.2	347187.5
Present Net Value Benefits	207636.3	586224.1	436870.7	500026.7	426516.2	501074.0	567465.4	520300.4
Present Net Value Costs	21117.0	133402.2	87129.3	164872.9	79152.1	147786.2	196256.2	173122.9
PVE, by Output								
Recreation								
Developed	0	65028.6	32747.4	58573.7	27551.4	45775.6	63110.6	51604.0
Disperse	442.5	121455.2	53470.0	55049.7	47693.1	79175.5	86302.4	68458.9
Range	0	31740.2	32136.3	34887.7	33819.5	33814.0	40287.1	34052.1
Timber	1089.8	56589.7	24860.9	57027.5	24446.6	36654.9	68007.0	63306.5
Wildlife (WFUD's)	4434.2	109561.3	91829.3	92618.9	91233.4	103888.6	107650.8	100965.8
Water Yield	0	181.3	157.0	199.4	102.4	95.6	238.3	243.3
Minerals	201669.8	201669.8	201669.8	201669.8	201669.8	201669.8	201669.8	201669.8
PVC by Category								
Total Forest Budget	21117.0	95874.5	69242.1	112403.4	62061.9	122476.5	139268.0	124085.9
Fixed Costs								
Protection	12373.7	12373.7	12373.7	12373.7	12373.7	12373.7	12373.7	12373.7
General Administration	8743.3	8743.3	8743.3	8743.3	8743.3	8743.3	8743.3	8743.3
Variable Costs								
Investment	0	15775.0	7870.6	22191.9	9000.2	29564.4	36435.9	30956.1
Total Roads	0	9899.2	4409.7	12967.6	3506.3	6532.1	15040.4	11748.0
App. Funds - Roads	0	1874.3	908.7	1682.8	565.0	1792.7	2128.4	1598.9
Purch. Cred. Roads	0	8024.9	3501.0	11284.8	2941.3	4739.4	12912.0	10149.1
Operational	0	45293.1	31452.1	55265.9	24885.0	59166.4	67595.7	57282.2
General Administration	0	9087.0	6917.3	9513.6	5520.9	9521.7	9518.5	9667.7
Non-FS Costs X Roads	0	32230.9	15362.6	43816.9	15122.7	21884.6	46548.7	41795.9

TABLE IV-30  
(CONTINUED)  
BENEFITS AND COSTS OF ALTERNATIVES DISCOUNTED AT 4 PERCENT

	ALT. 7	ALT. 8	ALT. 9	ALT. 10	ALT. 11
Present Net Value	300341.7	349810.0	353688.5	317897.7	352852.2
Present Net Value Benefits	355800.9	473658.2	518144.3	550010.7	516420.1
Present Net Value Costs	5549.2	123840.2	164455.8	232113.0	163567.9
PVE, by Output					
Recreation					
Developed	23981.6	51914.1	52116.8	51604.0	50744.4
Disperse	4321.8	67063.8	68688.3	68458.9	70687.6
Range	32016.6	34850.5	33867.5	35668.4	33696.5
Timber	6736.3	24633.7	58410.6	91184.4	55502.2
Wildlife (WFUD's)	87013.7	93301.3	103169.3	101159.7	103897.6
Water Yield	61.1	217.0	222.0	265.5	222.0
Minerals	201669.8	201669.8	201669.8	201669.8	201669.8
PVC by Category					
Total Forest Budget	52045.3	105802.5	118290.2	152213.0	118242.5
Fixed Costs					
Protection	12373.7	12373.3	12373.7	12373.7	12373.7
General Administration	8743.3	8743.3	8743.3	8743.3	8743.3
Variable Costs					
Investment	4985.9	20260.9	27536.3	41778.0	27405.5
Total Roads	1549.1	4729.6	11545.5	17986.1	12085.0
App. Funds - Roads	641.9	1207.6	1603.8	1612.9	1603.8
Purch. Cred. Roads	907.2	3522.0	9941.7	16373.2	10481.2
Operational	19578.8	52716.3	55763.8	71791.7	56144.0
General Administration	5370.5	9522.5	9518.5	12429.4	9518.5
Non-FS Costs X Roads	2857.9	15493.9	38974.7	67010.8	37297.9

TABLE IV-31

## BENEFITS AND COSTS OF ALTERNATIVES DISCOUNTED AT 7.125 PERCENT

	MIN. LEVEL	MAX. PNV	ALT. 1	ALT. 2	ALT. 3	ALT. 4	ALT. 5	ALT. 6
Present Net Value	116632.7	273877.5	222033.9	212577.7	222233.3	214220.0	229575.0	216885.0
Present Net Value Benefits	129995.7	357344.7	275309.2	307562.8	270585.0	300269.7	341254.4	313616.3
Present Net Value Costs	13363.0	83467.2	53275.3	94985.1	48351.7	86049.7	111679.4	96731.3
PVB, by Output								
Recreation								
Developed	0	38323.4	20914.4	36180.3	18144.2	26343.0	36675.4	30137.3
Dispersed	224.0	71813.9	34637.7	34530.3	32257.6	43132.0	50508.1	41772.7
Range	0	20329.1	20542.4	22111.2	21494.9	21493.3	25355.3	21657.2
Timber	550.4	31524.8	13945.1	29120.7	13698.9	17748.5	34479.1	30001.5
Wildlife (WFUD's)	2245.1	68262.6	58206.6	58517.9	57953.4	64523.9	67109.5	62917.4
Water Yield	0	114.7	86.8	126.2	59.8	52.8	150.8	154.0
Minerals	126976.2	126976.2	126976.2	126976.2	126976.2	126976.2	126976.2	126976.2
PVC by Category								
Total Forest Budget	13363.0	59549.3	43558.0	69051.8	39033.4	74225.3	84111.7	74731.6
Fixed Costs								
Protection	7830.2	7830.2	7830.2	7830.2	7830.2	7830.2	7830.2	7830.2
General Administration	5532.8	5532.8	5532.8	5532.8	5532.8	5532.8	5532.8	5532.8
Variable Costs								
Investment	0	9429.1	4721.6	12817.7	5456.8	17466.9	21111.9	17594.8
Total Road	0	5796.0	2514.2	6905.4	2018.3	3429.0	7595.5	5704.0
App. Funds - Road	0	1116.1	575.0	1034.1	357.5	980.1	1285.9	959.9
Purch. Cred. Roads	0	4679.9	1939.2	5871.3	1660.8	2448.9	6309.6	4744.1
Operational	0	28164.2	19903.2	34330.8	15747.4	35659.0	41044.0	34873.7
General Administration	0	5750.3	4377.4	5964.2	3493.7	5971.2	5968.4	6096.9
Non-FS Costs X Roads	0	20964.6	8395.9	21604.0	8272.5	10160.6	22596.6	19098.9

TABLE IV-31  
(CONTINUED)  
BENEFITS AND COSTS OF ALTERNATIVES DISCOUNTED AT 7.125 PERCENT

	ALT. 7	ALT. 8	ALT. 9	ALT. 10	ALT. 11
Present Net Value	188901.7	220464.3	220129.9	199328.5	221264.1
Present Net Value Benefits	223693.3	295957.2	313034.4	331997.8	313635.8
Present Net Value Costs	34791.6	75492.9	92904.5	132669.3	92371.7
PVB, by Output					
Recreation					
Developed	14676.9	31405.9	30492.5	30137.3	29939.6
Dispersed	2665.2	42596.6	41471.7	41772.7	43508.4
Range	20480.1	22052.4	21501.0	22478.4	21377.3
Timber	3788.5	13756.3	27886.1	47445.6	26671.9
Wildlife (WFUD's)	55074.1	59032.5	64566.4	63025.6	65021.9
Water Yield	32.3	137.3	140.5	162.0	140.5
Minerals	126976.2	126976.2	126976.2	126976.2	126976.2
PVC by Category					
Total Forest Budget	32880.8	65743.3	71912.1	92831.0	71905.1
Fixed Costs					
Protection	7830.2	7830.2	7830.2	7830.2	7830.2
General Administration	5532.8	5532.8	5532.8	5532.8	5532.8
Variable Costs					
Investment	3091.8	12341.9	15556.4	24232.0	15517.5
Total Road	921.5	2666.5	5680.5	9293.6	5731.1
App. Funds - Road	392.9	692.1	965.6	971.0	965.6
Purch. Cred. Roads	528.6	1974.4	4714.9	8322.6	4765.5
Operational	12459.3	32758.8	34414.8	44214.0	34751.5
General Administration	3398.5	5970.3	5968.4	7841.4	5968.4
Non-FS Costs X Roads	1557.5	8392.4	17921.4	33725.3	17040.2

## 2. BUDGET ESTIMATES

The average annual budget by alternative is listed in Appendix B. The budget ranges from a low in alternative 7 to a high budget in alternative 10.

## 3. EMPLOYMENT, POPULATION, AND INCOME

An economic impact analysis was prepared to predict changes in population, income and employment that each alternative would stimulate if implemented. An input-output (IO) model, IMPLAN was used for this analysis. The model calculated the direct, indirect and induced changes in employment and income. These effects would be indirect, and either beneficial or adverse, depending on the alternative. (See Appendix B for a detailed explanation of input-output analysis).

Table IV-32 shows the predicted impact of each alternative on the population, income and employment in the Fishlake National Forest's zone of influence. Alternative 8 is the no-action alternative. The impact of all other alternatives is based upon the change from this alternative. The range of predicted changes is in the plus or minus 2.8 percent range for total population, income and employment. The range of changes predicted for selected sectors, however, is much larger.

TABLE IV-32  
PROJECTED EMPLOYMENT POPULATION AND INCOME EFFECTS OF ALTERNATIVES  
FOR BEAVER, GARFIELD, MILLARD, PIUTE, SEVIER AND WAYNE COUNTIES  
(Estimated changes from 1980 to 1990 attributable to alternatives,  
with alternative 8 the no-change alternative).

<u>Alternative</u>	<u>Employment (Jobs)</u>	<u>Income (MM 1982 \$)</u>	<u>Population (Persons)</u>
Base Year 1980	12,700	259	36,450
1	-75	-1.728	-340
2	-17	-0.163	-79
3	-76	-1.729	-345
4	-86	-1.645	-387
5	94	2.464	423
6	-27	-0.490	-121
7	-345	-7.145	-1,561
8	0	0	0
9	-49	-0.940	-224
10	9	0.432	38
11	-22	-0.449	-102

#### 4. RETURNS TO THE U.S. TREASURY

Returns to the Treasury are expected to grow dramatically from current levels in all alternatives (Table IV-33). Oil and gas lease rentals and payments from coal royalties and rentals should contribute the bulk of the return to the Treasury. Each alternative's returns to the Treasury vary according to the level of grazing production, developed campground fees, and returns from fuelwood and sawtimber production. Alternative 10 produces the highest returns; alternative 7 produces the lowest returns.

TABLE IV-33  
ESTIMATED RETURN TO THE TREASURY  
Thousands of 1982 Dollars (Average/Year)

Alternative	DECADE				
	1	2	3	4	5
1	9,613.9	9,605.0	9,601.9	10,089.3	10,088.2
2	9,721.6	9,767.9	9,771.6	10,264.4	10,268.0
3	9,614.8	9,606.5	9,599.7	10,087.2	10,086.7
4	9,638.6	9,716.7	9,725.3	10,231.8	10,249.3
5	9,743.9	9,819.2	9,835.9	10,339.9	10,355.5
6	9,637.3	9,775.6	9,790.2	10,294.5	10,293.4
7	9,550.0	9,551.6	9,547.5	10,035.0	10,034.9
8	9,631.5	9,646.5	9,653.6	10,141.6	10,140.9
9	9,630.1	9,760.3	9,774.7	10,278.6	10,227.9
10	9,764.6	9,778.5	9,810.8	10,346.6	10,379.3
11	9,629.1	9,752.5	9,763.1	10,261.5	10,270.6

#### 5. PAYMENTS TO COUNTIES

By law, 25 percent of the revenues collected by the USDA Forest Service must be returned to the states to be used for schools and roads in the counties where National Forest System lands are located.

A far more significant source of funds to the state and the local counties comes from the Minerals Leasing Act of 1920. The state and local counties can share up to 50 percent of total receipts from lease sales, bonuses, royalties and rentals. Forty percent goes to the Bureau of Reclamation, and the remaining 10 percent of receipts goes to the U.S. Treasury.

Making an assumption that the counties might receive 25 percent of the funds available from the Mineral Leasing Act, estimates of receipt shares to counties by alternative are shown in Table IV-34. Alternative 10 consistently returns a higher amount to the counties over the next five decades than any of the other alternatives. Alternative 7 consistently returns the smallest amount to the counties over the next five decades when compared to the other alternatives.

TABLE IV-34  
 AVERAGE ANNUAL ESTIMATED PAYMENTS TO COUNTIES  
 Thousands of 1982 Dollars per Year

Alternative	DECADE				
	1	2	3	4	5
1	2,403.5	2,401.3	2,400.5	2,522.3	2,522.1
2	2,430.4	2,442.0	2,442.9	2,566.1	2,567.0
3	2,403.7	2,401.6	2,399.9	2,521.8	2,521.7
4	2,409.7	2,429.2	2,431.3	2,557.9	2,562.3
5	2,436.0	2,454.8	2,459.0	2,585.0	2,588.9
6	2,409.3	2,443.9	2,447.5	2,573.6	2,573.3
7	2,387.5	2,387.9	2,386.9	2,508.8	2,508.7
8	2,407.9	2,411.6	2,413.4	2,535.4	2,535.2
9	2,407.5	2,440.1	2,443.7	2,569.6	2,569.5
10	2,441.2	2,444.6	2,452.7	2,586.7	2,594.8
11	2,407.3	2,438.1	2,440.8	2,565.4	2,567.6

E. POSSIBLE CONFLICTS

The projected target and activities assigned National Forests in the Regional Guide for the 1980 Resource Planning Act (RPA) are displayed in Table IV-35. They represent Fishlake National Forest's share of the RPA outputs assigned to Intermountain Region. In the analysis of the Management Situation document, we identified areas where the Forest was not able to meet the assigned targets even with maximization of various resources as modeled in different scenarios.

TABLE IV-35

## 1980 RPA PLANNING TARGETS, ACTIVITIES, AND COSTS FOR THE FISHLAKE NATIONAL FOREST

Program Element and Activity	Unit of Measure	1981	1982	1983	1984	1985	Annual Units				
							1986- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
<b>Recreation</b>											
Developed Recreation Use	Thousand RVD's	370	375	380	385	390	420	450	540	630	720
Dispersed Recreation Use	Thousand RVD's	840	840	840	840	840	90	960	1,040	1,120	1,200
Trail Const./Reconst.	Miles	0	2	6	8	10	11	12	12	12	12
<b>Wilderness</b>											
Wilderness Management	Thousand Acres	Acres determined by 1984 Utah Wilderness Act (P.L. 98-428).									
<b>Wildlife and Fish</b>											
Wildlife Habitat Improvement	Thousand Acre-Equivalents	5	10	15	25	35	31	28	24	20	16
Anadromous Fish Improvement	Thousand Pounds	-	-	-	-	-	-	-	-	-	-
<b>Range</b>											
Grazing Use (Livestock)	Thousand AUM's	147	150	153	156	158	160	163	165	167	167
<b>Timber</b>											
Program Sales Offered	Million Board Feet	3	3	3	3	3	6	8	8	8	9
Reforestation	Acres	200	225	250	275	300	300	300	300	300	300
Timber Stand Improvement	Acres	200	200	200	200	200	200	200	200	200	200
<b>Water</b>											
Meeting Water Quality Goals	Million Acre-Feet	0.637	0.645	0.653	0.660	0.671	0.671	0.671	0.671	0.671	0.671
<b>Minerals</b>											
Leases and Permits	Operating Plans	183	195	206	218	228	271	304	336	368	400
<b>Human and Community Development</b>											
Human Resources Programs	Enrollee Years	Targets programmed on annual basis.									
<b>Protection</b>											
Fire Management Effectiveness Index	Dollars per Thousand Acres	146	153	160	167	175	174	167	167	167	167
<b>Lands</b>											
Purchase and Acquisition (Excludes Exchange)	Acres	Targets assigned by Region on annual basis.									

TABLE IV-35  
(Cont.)

1980 RPA PLANNING TARGETS, ACTIVITIES, AND COSTS FOR THE FISHLAKE NATIONAL FOREST

Program Element and Activity	Unit of Measure	1981	1982	1983	1984	1985	Annual Units				
							1986-1990	1991-2000	2001-2010	2011-2020	2021-2030
Soils											
Soil and Water Resource Improvement	Acres	160	252	344	436	526	506	485	482	480	479
Facilities											
Road Const./Reconst. (Arterial, Collector)	Miles	Targets developed at Forest level.									
Returns to Government	Million Dollars										
Work Force	Staff Years	102	105	107	119	130					
TOTAL Funds	Thousand Dollars	2,446	3,491	4,700	5,181	6,013	5,784	6,674	7,043	7,882-7:882	

In both developed and dispersed recreation use the Forest has the capability to meet Regionally assigned targets. However, the predicted growth trend indicates that the Forest will have a demand of 660 thousand RVD's of developed recreation. Capacity, at 45 percent occupancy rate, is only 588 thousand RVD's, unless new facilities are constructed. The same growth trends for the area indicate that dispersed recreation will be nearly double the assigned target in 1995.

None of the alternatives provide for achieving the RPA target of 169 thousand AUM's. The alternatives vary in AUM's in 2030 from 120,700 to 162,600, depending on budget, acres treated, and emphasis of resource use. The Forest's AUM capacity is influenced strongly by the past, present and future nonstructural and structural improvement projects. Without continued projects, the grazing capacity of many allotments will decline. Consequently, use must decline.

The Forest does not foresee any problem in achieving the RPA target for timber sales offered in the conifer type. The current market averages only 300 thousand board feet per year. Additional market will have to develop for aspen before there will be demand for the wood the Fishlake can produce. Regional reforestation and timber stand improvement targets assigned will not be met since the backlog of these treatment needs will be eliminated prior to 1985. Only the needs of current harvest will then be required in these two items.

The Regional target of 671 thousand acre feet of water meeting water quality goals cannot be met. The projected output will be only 611 thousand acre feet of water.

A Watershed Improvement Needs Inventory of the Forest indicates about 26,000 acres needing treatment. The Regional target is to have the backlog eliminated by 2000. Three alternatives, (4, 6, 10,) provide for meeting this target date. In the remaining alternatives the target would be completed between 2020 to 2030 except in alternative 7, which does not include any backlog treatment.

The cultural resources overview, as outlined by the National Forest Management Act (1976), will not be met by the prescribed date of 1983. As of January 1982, the Forest Archeologist has committed 95 percent of his time to the completion of project work. The Forest's project workload has been heavy. In FY 80, and again in FY 81, the Forest Archeologist and a temporary archeological technician surveyed more project related acreage than all of the other Utah Forests combined. The Forest cultural resources overview will be completed by the next plan iteration.

There is a potential conflict between mineral development and existing and proposed Research Natural Areas. These areas are presently under mineral lease or claim. Should there be increased interest in exploration or development within these areas, there would be potential conflict between development and nondevelopment interests.

Conflicts could develop between big game and livestock interests on and adjacent to the Forest. Monitoring studies are in place to identify any resource conflicts between big game and livestock.

## Coordination With Federal, State, and Local Agencies and Indian Tribes

Throughout the planning process the Forest has kept state, local and other Federal agencies informed of its planning efforts. No major conflicts have been expressed.

The Fishlake National Forest is required to examine possible conflicts between the proposed action and the objectives of Federal, state, and local land management plans, policies, and controls for the area covered in the Forest Plan.

Contacts, meetings and other public involvement activities with Federal, State, and local government agencies indicate there are no conflicts between the provisions of the preferred alternative and the various management plans of local entities and adjacent Federal land managing agencies. The Forest holds annual coordination meetings with Capitol Reef National Park, Richfield District of the Bureau of Land Management, Utah Bureau of Water Pollution Control, the Utah Division of Wildlife Resources, and county commissioners of the six counties within and contiguous to the Fishlake National Forest. Additional details about the public involvement are in Appendix A.

There are no major conflicts between provisions in the Preferred Alternative and the Resources Planning Act (RPA) Program.

The Paiute Indian Tribe of Utah Restoration Act (Public Law 96-227) was passed on April 3, 1980. The Act restores the Federal trust relationship to the five Paiute Indian Bands and makes the Paiute Tribe and its members eligible for all services and benefits furnished to Federally recognized Indian Tribes. The Kanosh and Koosharem Bands reside in close proximity to the Fishlake National Forest.

The President signed the Paiute Indian Bill on February 17, 1984 (P.L. 98-219). The Bill restores certain tracts of land to be held in trust for the Indians. In addition, it provides that the tribe or its members have the right to use a tract of National Forest land along the south shore of Fish Lake during the second and third weeks of June and the first and second weeks of September each year for religious and ceremonial purposes.

This Final EIS and Forest Plan will be made available to Federal, State and local agencies and Indian tribes for their review and comment on any possible conflicts with other plans.

Additional information is contained in Appendix A.

### F. ENERGY REQUIREMENTS

Evaluation of the energy effects resulting from the forest management alternatives has become very significant since fossil fuel demands and energy prices have escalated. Tables IV-36 and IV-37 show the characteristics of the net energy balance of Forest-based resources. The net Forest energy balance (net gain) is the difference between the energy produced and the energy expended in utilizing Forest resources or services.

The energy consumption (energy expended) includes the energy required to produce and utilize Forest resources and to provide service and protection from natural disasters. Energy consumption includes the energy content of consumed fuels and lubricants, the energy used in fabrication of required materials, fuels, and lubricants, and the prorated energy used in manufacture of the machinery used. The energy directly consumed by people is generally not included.

The energy yield (energy produced) is based on the present form of utilization of any Forest resource. Energy yields relate to direct fuel values, energy savings over substitute materials, or energy savings due to reduced need for expenditure of energy.

The alternative that produces the greatest net gain in energy is the Twenty-Five Percent Reduced Budget, alternative 7. It also has the lowest rate of energy consumption. The alternative with the highest rate of energy consumption is the 1980 RPA Program, alternative 5 which also has the lowest amount of net gain. Alternative 2, Market Opportunities, has the highest energy yield but ranks third in net gain energy yield.

Tables IV-36 and IV-37 summarize total yields and consumption of energy and the net gain or loss of energy projected for each alternative. These totals are evaluations for the next five decades. The figures in these summary tables total all outputs and are computed from evaluations for the five decades. These summary tables are presented in two parts to show the effect of the yield of fuel minerals (coal). The impact of the yield of energy from fuel minerals causes all net changes to be positive in Table IV-36. Without the yield from these minerals, all net changes are negative as shown in Table IV-37.

The planning records and working papers available at the Forest Supervisor's Office contain detailed analysis of these yields and consumption by resource function over the same five decades that were used to develop the summaries (Schwartzbart and Schmitz 1982).

TABLE IV-36  
TOTAL YIELDS AND CONSUMPTION OF ENERGY  
From Selected Forest  
Activities\* Under Proposed Management Alternatives.

Alternative	Consumption	Yield	Net Gain
	- - - Million BTU's per year - - -		
1	520,000	142,123,600	141,623,600
2	380,000	142,130,800	141,750,800
3	360,000	142,125,600	141,765,600
4	640,000	142,124,000	141,484,000
5	720,000	142,124,400	141,404,400
6	600,000	142,122,800	141,522,800
7	220,000	142,127,000	141,907,000
8	500,000	142,119,800	141,619,800
9	500,000	141,119,200	141,619,200
10	640,000	142,119,000	141,479,000
11	600,000	142,126,600	141,526,600

\*Timber; biomass harvest; range management; water management; fuel minerals (coal only); non-fuel minerals; road construction and maintenance; fire management.

TABLE IV-37  
TOTAL YIELDS AND CONSUMPTION OF ENERGY  
From Selected Forest Activities\* Under  
Proposed Management Alternatives  
(Excepting Coal Production)

Alternative	Consumption	Yield	Net Gain
	- - - Million BTU's per year - - -		
1	520,000	124,000	-396,000
2	380,000	130,000	-250,000
3	360,000	126,000	-234,000
4	640,000	124,000	-516,000
5	720,000	124,000	-596,000
6	600,000	122,000	-478,000
7	220,000	128,000	- 92,000
8	500,000	120,000	-380,000
9	500,000	120,000	-380,000
10	640,000	118,000	-522,000
11	600,000	126,000	-474,000

\* Timber; biomass harvest; range management; water management; non-fuel minerals; road construction and maintenance; fire management.

## G. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

An irreversible commitment of resources refers to actions which disturb a nonrenewable resource. This also includes actions which disturb renewable resources to the extent that recovery can occur only over a long period of time or at great expense. Measures to protect resources that could be irreversibly affected by other resource uses were incorporated in Forest Direction and apply to all alternatives.

Development of mineral resources is an irreversible commitment of resources, since the minerals are no longer available for future use once they are extracted. Normally, the role of the Forest Service is to manage the surface resources to minimize adverse environmental impacts during the exploration and development of mineral resources. Approximately 300 acres of surface disturbances are involved Forest-wide to extract limestone, quartzite, shale, coal, clay, gravel, and miscellaneous rock for construction purposes. These are irretrievable commitments of resources which do not vary significantly among alternatives. Amounts extracted can be found in the minerals section of this chapter.

Actions such as road construction, timber harvest, and range management generally are not considered irreversible. Soil loss associated with these activities is considered irreversible.

Soil and water conservation measures have been developed for the various Forest management practices to assure that soil loss tolerance values (t values) for different soils are not exceeded. Soil loss tolerance is the maximum permissible annual rate of soil erosion that will permit soil productivity to be sustained. Alternatives 1, 2, 3, 7, and 8 have the greatest amount of erosion. Management direction in the prescriptions is designed to hold losses to acceptable levels.

An irretrievable commitment of resources is the production or use of renewable resources that are lost or consumed because of management decisions, including opportunities foregone. Productive timber that is not harvested and subsequently lost by mortality is an example of an opportunity foregone. The commitment could be reversible by changing management direction to provide for harvesting the renewable resource.

Utilization or development of any one resource to its maximum potential is generally accomplished at the expense of other resources. No alternative considered in detail utilized a particular resource to its maximum potential. All alternatives provide for a mix of resource uses.

Designation of Research Natural Areas is reversible. However, alternation of a natural area by human activity is not reversible for scientific purposes. Once natural ecosystems are unnaturally altered, their value as a scientific baseline is diminished or destroyed.

## H. ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

The alternative formulation process considered a wide range of alternatives, some of which had major environmental effects. Many of these effects were avoided by the criteria established for selecting alternatives that could be implemented. Thus, the eleven alternatives considered in detail represent a broad range of resource outputs, but also minimized adverse environmental effects. Mitigation measures included in the Forest Direction and Management Area Direction of the Proposed Forest Plan are intended to minimize the extent and duration of these effects. However, some adverse effects that cannot be avoided are included in the proposed actions. These effects are:

### Scenic Values

Vegetation manipulation and road construction activities cause a temporary change in the landscape that is normally distasteful to the observer. Higher budget alternatives with greater amounts of resource development will have greater changes in visual quality than lower budget alternatives. Acreage of natural landscapes will decline as roads, fences, facilities, vegetative changes and other evidence of man increases.

### Fire Management

During the short-term period of logging and thinning operations there would be a temporary increase in fire hazard from waste left on the ground in the form of unmerchantable trees, tops, limbs, and needles. This effect would be greatest in alternative 10, least in alternative 7, and intermediate in alternatives 2, 5, 6, 8, 9, and 11.

### Recreation

The recreationist will experience a change in the social setting during the planning period, especially for alternatives 2, 4, 5, 6, 8, 9, 10, and 11. This is from a three fold increase in people visiting the Forest. The kind and amount of restrictions placed on people's actions will also increase as numbers of people increase. In addition, project activities such as timber sales and road construction may disrupt recreation uses by reducing or changing the type of recreation that normally would occur on the area.

### Air Quality

Vegetation manipulation and road construction will cause a slight, temporary change in air quality. This change, which occurs only during the actual construction, harvesting, and burning, will be in the form of increased dust, noise, and smoke. None of this will cause a violation of State Air Quality Standards.

### Erosion and Water Quality

In high budget alternatives, there will be a short term acceleration of onsite soil loss and stream sedimentation associated with resource development activities. Over the long term, soil loss will decrease as goals of management activities are met, and as permitted livestock numbers are

adjusted to grazing capacity. Under low budget alternatives, such as 1, 3, and 7, lack of mitigation measures will allow erosion to continue at present levels or increase. This includes sedimentation from lands where maintenance is insufficient to protect the resource.

### Wildlife and Fish

Increased human activities throughout the Forest will adversely affect wildlife species which are not compatible or adaptable to such activities. New or improved roads and increased use of existing roads will adversely impact most species of wildlife because of vehicle-animal collisions and expansion of the human use zone. The increased or improved access will decrease escape cover which, in turn, will likely increase hunter harvest and illegal kill of wildlife.

### Cultural Resources

An increase in illegal collection, vandalism, and inadvertant disturbance of artifacts is expected for those alternatives that provide for high numbers or recreation visitor days. Mitigation was included in these alternatives by increasing law enforcement funding.

## I. SHORT TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE OF LONG-TERM PRODUCTIVITY

The relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity is complex. Short-term uses are those that generally occur on a yearly basis on some part of the Forest, such as livestock grazing as a use of the forage resources, timber harvest as a use of the wood resource, and recreation and irrigation as uses of the water resource.

Long-term here refers to longer than a 10 year period. Productivity refers to the capability of the land to provide resource outputs. Soil and water are the primary resources. The quality of life for future generations will be determined by the capabilities of the land to maintain its productivity. Land usage and permitted activities must not significantly impair the long-term productivity of the land.

Standards and Guidelines that apply Forest Direction in the alternatives were developed by the interdisciplinary team and are contained in the Forest Plan. Specific direction and mitigation measures were included in the Standards and Guidelines to assure that long-term productivity was not impaired by the application of short-term management practices. Chapter IV of the Forest Plan lists the Forest-wide Standards and Guidelines.

Each alternative was analyzed to assure that minimum Standards and Guidelines could be met. Through this analysis, long-term productivity of the Forest ecosystems is assured in all alternatives. Alternatives 10, 5 and 2 have the highest level of short-term uses, as reflected by acres of vegetative treatments, and therefore result in higher levels of short-term consequences such as visual impact, fire hazard, and soil disturbance. The remaining alternatives are shown in decreasing order of short-term uses: 8, 6, 9, 11, 4, 3, 1, and 7.

The management prescriptions, management practices, and effects of Plan implementation will be monitored to provide data for insuring that the Standards and Guidelines are met. Details on the monitoring program are included in the Forest Plan. Monitoring will also assure that long-term productivity on the Forest will be maintained or improved by the application of management direction.

J. NATURAL OR DEPLETABLE RESOURCE REQUIREMENTS AND CONSERVATION POTENTIAL OF ALTERNATIVES

Natural resource requirements for implementing the proposed action, or any of the other alternatives considered in detail, require the basic soil and water resources and associated plant and animal communities that comprise the Forest and rangeland ecosystems. Decisions to assign lands to various management prescriptions in this Planning effort were made with consideration of the multiple use benefits and coordinating requirements necessary to conserve these resources. Mitigation measures to insure resource conservation are included in the Forest and Management Area direction of the Forest Plan.

Resource depletion may include removal of a nonrenewable resource such as minerals or the loss of a basic resource such as soil. In the case of the mineral resource, once the mineral has been extracted it is gone. Conservation of these resources might be defined as the planned rate of removal and removal method in the case of coal, for example, that gives the highest percentage recovery. Mitigating measures involved in the location, development and removal of resources are considered and may be found in the Forest Plan. Soil depletion through natural or manmade disturbances is also considered and rehabilitation/conservation activities associated with the potential depletion of this resource is planned for in each alternative.

In addition, the extinction of a plant or animal species may also be thought of as depletion of a resource. Protection and improvement of threatened or endangered species habitat has been considered in all alternatives and management direction included in the Forest Plan.

K. URBAN QUALITY, HISTORIC AND CULTURAL RESOURCES: THE DESIGN OF THE BUILT ENVIRONMENT

Historical and Cultural Resources

Cultural resources are protected by laws enacted since 1906.

With the conception of a project, a thorough field survey is conducted to identify existing cultural resources within the projected area. If cultural properties are evaluated as significant and eligible for inclusion on the National Register of Historic Places (36 CFR 800), then the effects of the proposed activity upon the significant resources must be determined.

The following adverse effects should always be considered:

- Destruction or alteration of the property.
- Isolation from or alteration of the surrounding environment.
- Introduction of visual, audible or atmospheric elements that are out of character or alter the setting.
- Transfer or sale without provisions to preserve and protect the property.

Since 1980, over 99 percent of the projects conducted on Fishlake National Forest have been determined as causing "no effect" on the significant cultural resources. The large number of no effect determinations is consistent with principles of management that steer disruptive project actions away from significant cultural properties. For example, significant sites within range chaining areas are simply flagged and avoided. Most projects conducted on Fishlake National Forest are sufficiently flexible to allow for the avoidance of significant cultural resources. An exception to this is the land exchange which removes the protective umbrella of legislation from the archeological property as it moves into private ownership.

When a project will adversely affect a cultural property, the effects of the project must be mitigated. In consultation with the Utah State Historic Preservation Office, a plan is developed to salvage the unique characteristics and data that has made the site eligible for inclusion on the National Register.

It should be noted that the enacting of any one of the eleven management alternatives will not change the direct impacts to the cultural resource base. Management direction will continue to allow for the avoidance of significant cultural resources.

Although the selected alternative will not affect cultural resource policy and procedure, it will influence the acreage surveyed annually and the degree to which we expand our knowledge of the cultural resource base. Alternatives 2, 5 and 10, which emphasize the treatment of rangelands, will subject thousands of acres to the field survey while greatly increasing our knowledge of the cultural resources. Range chainings, which are normally positioned within the high site density zones of the pinyon-juniper forests, are intensively and extensively surveyed. Alternatives 1, 3, and 7, which have fewer range treatments will negatively affect the cultural resource program by decreasing the annual total of surveyed acres.

## V. LIST OF PREPARERS

The following persons, listed alphabetically, were the principal preparers of both the Environmental Impact Statement and the Forest Land and Resource Management Plan. Each person's educational qualifications, work experience, and role in the planning process is included. Those persons who provided significant contributions to the Plan in its early development stages, but who are no longer with the Fishlake National Forest or no longer with the Forest Service are denoted by an asterisk. Members of the I.D. Team are denoted by a double asterisk. Also listed is the typing and copying team and resource support personnel.

Charles R. Allred - Richfield District Ranger, B.S Range Science

Twenty-three years of Forest Service experience, primarily in range management with 14 years as a District Ranger. Participated as a member of the Forest Management Team which has provided management direction throughout the planning process. Provided detailed resource management input on the location and scheduling of implementation action plans.

Timothy M. Bliss - Soil Scientist - B.S. Soil Science, M.S. Resource Economics

Eight years of Forest Service experience at the Supervisor's Office level in soil survey and interpretations. Six months experience with the Soil Conservation Service. Provided technical input on soils.

\* Stanley P. Buck - Geologist, Loa District

Four years Forest Service experience at district level. Coordinated district input to Plan.

\* Rodney L. Busby - Economist - M.S. Resource Economics, B.S. General Biology

Five years of Forest Service experience at District and Supervisor's Office levels. Conducted economic efficiency and distributional studies of alternative Forest plans.

Robert L. Day - Loa District Ranger, B.S.

Seventeen years of Forest Service experience in a variety of resources at the district level. Transferred to the Fishlake National Forest during the latter stages of the planning process. Participated as a member of the Forest Management Team which has provided management direction to the planning process.

\* Ellen Daugherty - Forestry Technician

Five years of Forest Service experience at District and Supervisor's Office levels, two years in land management planning. One year cartographic experience with U.S. Geological Survey. Responsible for assembly of graphics, boundary plotting and compiling special solutions.

Bethea J. Edmonds - Information Assistant

Twenty years of Federal Service with two years experience at Supervisor's Office level in support services in public information.

- \* Ivan Erskine - Fuel Management Specialist, Richfield - B.S. Forest Watershed Management, B.S. Elementary Education.

Eight years of Forest Service experience at District and Supervisor's Office levels. At the District level primarily worked in timber, recreation, special uses, minerals, and fire management. At the Supervisor's level primarily worked in fire and fuel management. Acted as team leader for the Beehive Peak Fire Management Area Environmental Assessment and author of the fire action plan. Also responsible for completing Levels I and II fire analyses used in the planning process.

Lynn A. Findlay - Forester - B.S. Forest/Range Management

Nineteen years of Forest Service experience at District and Forest levels with responsibilities in range, wildlife, watershed, timber, minerals, wildfire, and recreation. Participated as member of Planning Team providing technical expertise in the minerals management area.

- \*\* Andrew E. Godfrey - Forest Planner - A.B. Geology and Ph.D. Physical Geography

Four years teaching geology at Vanderbilt University. Eleven years Forest Service experience at Supervisor's Office level in geology and land management planning. Responsible for coordinating all activities necessary to prepare Draft Environmental Impact Statement and Forest Plan.

- \* Theron Garth Heaton - Utah Energy Liaison Officer- B.S. Forest Management

Sixteen years of Forest Service experience at District and Supervisor's Office levels in timber, lands, recreation, fire, forest planning, and minerals and energy. Provided technical direction in energy corridor planning.

Hale Hubbard - Administrative Officer - B.S. Industrial Engineering

Twenty-two years of Forest Service experience at Supervisor's Office level; A.O. for 15 years. Additional assignments: safety coordinator - 10 years, law enforcement coordinator - 10 years, special uses staff officer - 9 years, telecommunications manager - 1 year.

Christine A. Jauhola - Fisheries Biologist - B.S. Biology, M.S. Zoology

Four years of Forest Service experience at both District and Supervisor's Office levels in fisheries habitat management. Two years of experience with the Bureau of Land Management in fisheries habitat management. Provided technical input in fisheries.

\* Coy G. Jemmett - District Ranger, Loa - B.S. Wildlife Management

Fourteen years Forest Service experience at District and Forest levels in timber, range, wildlife, fire, watershed, minerals and land uses with four years as District Ranger. As a member of the Forest Management Team, provided management direction throughout the planning process. Provided detailed resource management input on the location and scheduling of implementation action plans. Experience in planning has involved various phases of the process including public involvement, technical data preparation (range and wildlife), analyses, coordinating resource considerations, alternative selection and document preparation comprising 12 land use plans on 5 National Forests and 16 Ranger Districts.

Darwin R. Jensen - B.S. Range Management

Eighteen years Forest Service experience at District and Supervisor's Office levels, twelve years as a District Ranger. Has participated as a team member on three Planning Unit Plans. Member of Forest Management Team which provided management direction throughout the Forest planning process.

\* David Kennell - Hydrologist - B.S. Watershed Sciences

Three years of Forest Service experience in hydrology at Supervisor's Office level. Provided technical input in water resources.

Robert W. Leonard - Forest Archeologist - B.A. History, M.A. Work  
Archeology

Three years of Forest Service experience at the Supervisor's Office level. Three years with the National Park Service. Provided functional assistance in the archeological inventory of proposed project areas and in the general management of cultural resources.

\* Lars F. Lind - Budget and Accounting Officer

Five years of Forest Service experience at Supervisor's Office levels and four months as program director of a 100 enrollee residential YACC camp. Process manager for the Forest's multi-year Program Planning and Budgeting. Participated as chairman of the committee to tie the program budget, RPA alternatives, and Forest planning alternatives together as one submission.

Elbert J. Lowry - B.S. Zoology

One year experience as an ecological associate with epidemiological and epizootological staff for University of Utah at Dugway Proving Ground, Utah. Five years experience as wildlife/recreation specialist for Bureau of Land Management, Cedar City, Utah. Nine years experience as wildlife/range specialist (one year) and wildlife management biologist (eight years) for BLM at Richfield, Utah. Two years as Forest biologist for the Fishlake National Forest.

- \*\* Don Marchant - Civil Engineer - B.E.S. Civil Engineering - Registered Professional Engineer (Utah)

Thirteen years of Forest Service experience at Supervisor's Office level with responsibilities in water and sanitation, road planning, design and construction. Engineering representative for the planning effort relating to Forest facilities and roads. Provided data for road system planning and costs.

- \* Leonard A. Miracle - Writer/Editor - B.A. English, M.S. English/Journalism

Twenty-three years national magazine and newspaper writing and editing. Author three published books. Five years Forest Service experience at District and Supervisor's Office levels.

- \*\* David N. Morin - Resource Staff Officer - B.S. Forest Management

Twenty-two years experience at the Ranger District and Forest Supervisor's Office levels. Served as a District Ranger for 11 years. Primary areas of responsibility have been timber, recreation, lands, and fire management. Provided technical input to the lands and fire management functions. Served as team leader for public involvement. Edited draft documents.

- \* James L. Mower - Staff Officer - Resources - B.S. Range Management

Twenty-two years of Forest Service experience at District and Supervisor's Office levels, including two years range planning and development for the Government of Kenya. Served 15 years as District Ranger and 5 years as staff officer for range, wildlife, minerals, and soil and water. Participated as a member of the Forest Management Team which provided management direction throughout the planning process. Provided detailed budget planning and scheduling of range implementation action plans.

- Ferrin J. Rex - Landscape Architect - B.F.A. Landscape Architecture Registered (Idaho), and Environmental Planning

Nineteen years of National Forest planning and management experience at four Supervisor's Offices and one Regional Office (Intermountain) in land management planning, recreation opportunities, and visual resource. Provided technical data, evaluation, and expertise primarily in recreation and visual resource.

- \* Judy Rose - Archeologist - M.A. Anthropology

Three years Forest Service experience as archeologist for Utah Zone. Two years National Park Service resource management, interpretation, archeology experience. Provided technical input in archeology to alternative assessment.

Ronald M. Sanden - Forester (Silviculturist) - A.B. Pre-Forestry, M.F.  
Forest Management

Twenty years of Forest Service experience at District, Supervisor's Office and Regional Office levels in timber, fire, insect and disease, transportation, and recreation. Provided technical expertise in timber, fire, and forest pest management. Member of Analysis of Management Situation and Evaluation of Alternative Teams.

\* Jill A. Steward - Range Conservationist - B.S. Range Management

Four years experience at Supervisor's Office and District levels in Range Management. Provided technical expertise in range.

J. Kent Taylor - Forest Supervisor - B.S. Animal Husbandry, M.S. Range  
Management

Twenty-four years of Forest Service experience at District, Supervisor's Office, and Regional Office levels. Fourteen years experience in staff assignments at Forest and Regional Offices involving all aspects of National Forest management. Served as a member of numerous regional committees and task force assignments covering a broad range of management operations. Provided overall management direction on the preparation of the Draft Environmental Impact Statement and Forest Plan.

\*\* Ronald K. Tew - Range Staff Officer - PhD in Plant Nutrition and Bio-chemistry.

Twenty-three years of Federal service working with the following agencies: (1) National Park Service as a Park Ranger; (2) Intermountain Forest and Range Experiment Station as a Research Scientist; (3) Soil Conservation Service as a Soil Scientist; and (4) Intermountain Region working on four Forests and in the Regional Office with responsibilities for water quality and water rights. Worked as an Associate Professor at Fresno State College in California.

Dee B. Thomas - Analysis Team Leader - B.S. Forest Range Management,  
M.S. Watershed Science

Nine years experience in range management at the District level. Thirteen years experience at the Forest level in hydrology. Participated as member of the Forest Interdisciplinary Team in preparation of Unit plans and the current Land Management plan.

Ronald S. Wilson - District Ranger, Fillmore - B.S. Range Management

Nineteen years Forest Service experience at District and Supervisor's Office levels primarily in range, wildlife, watershed and minerals areas including five years as a District Ranger. Participated as a member of the Forest Management Team which provided detailed resource management input to the location and scheduling of implementation action plans.

Typing and special support provided by the following:  
Cindy Chojnacky, JoAnn Dodds, Jeff Foss, Della Rasmussen, Brent  
Spencer, Sherry Sorensen and Mica Church.

## CHAPTER VI

### COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT AND LIST OF AGENCIES, ORGANIZATIONS, AND PEOPLE TO WHOM COPIES OF THE DRAFT WERE SENT

#### I. INTRODUCTION

This chapter discusses efforts to involve and consult with a variety of publics during the formulation of the proposed Plan and Draft EIS. It also contains and responds to comments received during the public comment period for the proposed Plan and EIS.

The second section of this chapter, CONSULTATION WITH OTHERS BETWEEN THE DRAFT AND FINAL EIS, summarizes the public involvement efforts undertaken during the comment period.

The third section, PUBLIC COMMENTS ON THE DRAFT EIS AND PROPOSED FOREST PLAN AND FOREST SERVICE RESPONSES, contains all written comments sent to the Forest and summaries of public meetings.

The fourth section of the chapter, MAILING LIST, lists all those to whom copies of this statement have been sent. The list was composed in response to direction in the Forest Service Manual, requests for copies, and those who commented on the proposed Plan and Draft EIS.

The Forest Service conducted an active public involvement program throughout the Planning process as directed by the National Environmental Policy Act (NEPA). Federal, State, and local government agencies have been informed and consulted. Individual Forest users and interested groups also had the opportunity to participate.

Prior to publication of the proposed Plan and Draft EIS, newsletters, brochures, personal contacts by Forest personnel, and meetings with various interest groups were used to give people opportunities to review issues and concerns, and preliminary alternatives. A summary of this public involvement activity is contained in Appendix A.

#### II. CONSULTATION WITH OTHERS BETWEEN DRAFT AND FINAL EIS

The Notice of Intent was published in the Federal Register. The proposed Plan and Draft EIS were filed with the Environmental Protection Agency and made available to the public on August 2, 1985. News releases were also prepared for the media in Beaver, Delta, Fillmore, Richfield, Salina, and Salt Lake City, Utah. About 800 copies of the Summary of the Draft EIS and proposed Forest Plan, and about 400 copies of the Draft EIS, Forest Plan, and map packages were distributed to people and organizations on the Forest Plan mailing list.

The deadline for submission of written comments was October 31, 1985. The schedule for the preparation of the Forest Plan and Final EIS was such that it

was possible to include all written comments received by November 30, 1985, even though those comments were received after the comment period closed.

During the month of August, 1985, open houses were held at all Ranger District offices to present the proposed Plan to the public and to answer questions. Also, meetings were held during the months of August, September, and October with various interest groups and public agencies to discuss the Plan. Records of those open houses and meetings are available at the Forest Supervisor's Office, 115 East 900 North, Richfield, Utah, 84701.

### III. LIST OF PERSONS, ORGANIZATIONS, AND AGENCIES WHO COMMENTED

The following persons, organizations, and agencies provided comment on the draft EIS and Forest Plan. They are listed in alphabetical order:

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PAGE NUMBER</u>
Acord, Clair R.	Utah Wool Growers	VI-24
Andersen, Roberta	Amoco	VI-44
Andrews, Dianne	The Wilderness Society	VI-64
Bangerter, Norman H.	Governor, State of Utah	VI-76
Carr, Dr. Gerald P.		VI-90
Carter, Dick	Utah Wilderness Association	VI-91
Clardy, Bruce I.	Sohio Petroleum Co.	VI-46
Cowley, Ivan	Lost Creek Boobie Hole Grazers' Assoc.	VI-40
Dykman, James	Utah Division of State History	VI-5
Flesche, M. M.	Chevron U.S.A. Inc.	VI-60
Frell, Alice I.	Rocky Mountain Oil and Gas Association	VI-62
Fuellenbach, Mark	The Richfield Reaper	VI-45
Gordon, Gerald E.	Utah Wildlife Federation	VI-11
Gregas, Norman P.		VI-10
Holt, Francis T.	USDA Soil Conservation Service	VI-27
Juliff, R. J.	Southern California Edison Co.	VI-89
Knuffke, Darrell	The Wilderness Society	VI-64
Lopez, Edward	Dept. of the Air Force	VI-4
Matuschek, Robert J.	U.S. Dept. of Housing & Urban Development	VI-8
Nielsen, Randy T.	Mountain Men of the Wasatch	VI-42
Niemeyer, Paul	Sevier Sheriff's Posse	VI-56
Niemeyer, Paul	Sevier Wildlife Federation	VI-57
Peterson, Bonnie		VI-70
Peterson, L. Cordell		VI-71
Peterson, David R.		VI-47
Porter, James Niel		VI-41
Robinson, Gerald		VI-59
Ruesink, Robert G.	USDI Fish and Wildlife Service	VI-7
Salina Lions Club	Salina Lions Club	VI-119
Stewart, Robert F.	USDI Office of Environmental Project Review	VI-17
Stubbs, Grant N.	City of Salina	VI-88
Sudweeks, Calvin K.	State of Utah Dept. of Health	VI-68
Swanson, John R.		VI-26
Tuhy, Joel S.	The Nature Conservancy	VI-27
Valantine, Vernon E.	Colorado River Board of California	VI-6
Vodehnal, Dale	U.S. Environmental Protection Agency	VI-48
Wintch, John W.		VI-9

IV. PUBLIC COMMENTS ON THE DRAFT EIS AND PROPOSED FOREST PLAN AND FOREST SERVICE RESPONSES

This section of Chapter VI contains all written comments from the public and the Forest Service responses to those comments. The comment letters appear on the left side and the responses are on the right. To see the response, read the corresponding numbered answer to the right.

Comments on the Draft EIS and Proposed Forest plan generally confirmed the issues and concerns identified in the first step of the planning process. Not all of the original issues and concerns were mentioned equally. Travel management and forage for livestock and wildlife were mentioned most frequently.



DEPARTMENT OF THE AIR FORCE  
AIR FORCE REGIONAL CIVIL ENGINEER CENTRAL REGION  
1114 COMMERCE STREET  
DALLAS TEXAS 75242  
8 August 1985

Mr J S Tixier, Regional Forester  
Intermountain Region  
Federal Office Building  
324 25th Street  
Ogden, Utah 84401

Dear Mr. Tixier

Thank you for allowing us the opportunity to review the draft planning documents for the Fishlake National Forest Utah

We continue to express our support of the Forest Service in developing functional management plans for lands under its control. The Air Force concern for these management issues contains the need to retain use of existing and the establishment of future military flight training areas and routes which may traverse these areas.

Currently only one Air Force operation VFR 1258 traverses a portion of the extreme southwest corner of the study area in question. Although flight training areas, routes, and, airspace requirements of the military are subject to change and do change frequently, it is not anticipated that new routes will be established in the immediate future. However, if we do propose any change we will keep you informed.

Mission requirements, fuel costs and environmental constraints determine the decision to locate military training activities. Because of general aviation and population pressures, low level high speed flights are relegated to areas which are least accessible and sparsely inhabited.

1. Therefore, we request that you give full consideration to how planning and management decisions made by your agency may adversely affect or restrict use of low altitude airspace by the military. The Air Force position on this matter is based on the high training and readiness values rendered by use of this low altitude airspace.

We are hopeful this information is useful in your planning. If additional information is needed, our staff point of contact is Mr Raymond Bruntmyer, (214) 767-2527, or 729-2527.

Sincerely,

Edward Lopez, Chief  
Planning and Intergovernmental Affairs Branch

Cy to AFRCE-WR/ROV  
HQ USAF/LEEV

1. The Fishlake Forest Plan should have no impact on the use of low altitude airspace by the military.



NORMAN H. BANGERTER  
GOVERNOR



STATE OF UTAH  
DEPARTMENT OF COMMUNITY AND  
ECONOMIC DEVELOPMENT

Division of  
State History  
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR  
300 FID GRANDE  
SALT LAKE CITY, UTAH 84101-1182  
TELEPHONE 801 / 533-5755

August 14, 1985

Andrew Godfrey  
Forest Planner  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

RE: Draft Environmental Impact Statement for Fishlake National Forest

In Reply Please Refer to Case No. I244

Dear Mr. Godfrey:

- 2 The Utah Preservation Office has received for consideration a copy of the Draft Environmental Impact Statement and Proposed Forest Land and Resource Management Plan for the Fishlake National Forest. Our only comments are related to the placement of cultural resources in the plan itself. No mention of cultural resources is made under major points in the EIS, and there is no mention of cultural resources under Irreversible and Inevitable Commitment of Resources. Cultural resources should also be listed under Adverse Environmental Effects that Cannot be Avoided. Apparently the only affects that are acknowledged are vandalism due to increased recreational use. That point may be up for consideration, considering the amount of project development and some of the problems that flagging brings with development such as timber resources.

- 2. The EIS discusses cultural resource management in the Summary (S-6), Affected Environment (III-23 to 26) and Environmental Consequences (V-5 to 10 and IV-88 to 89). Cultural resources are also a stated constraint to management activity that cannot be mitigated. In reference to Irreversible and Irretrievable Commitment of Resources, recording of sites on the Intermountain Antiquities Computer System sites form insures that all significant sites are avoided during project activities.

Since no formal consultation request concerning eligibility, effect or mitigation as outlined by 36 CFR 800 was indicated by you, this letter represents a response for information concerning location of cultural resources. If you have any questions or concerns, please contact me at 533-7039.

Sincerely,

James L. Dykman  
Cultural Resource Advisor  
Office of State Historic  
Preservation Officer

JLD jrc I244/1990V

## COLORADO RIVER BOARD OF CALIFORNIA

107 SOUTH BROADWAY ROOM 8103  
LOS ANGELES, CALIFORNIA 90012  
(213) 620-4480



August 16, 1985

Mr. J. Kent Taylor  
Forest Supervisor  
U.S. Forest Service  
Fishlake National Forest  
Richfield, Utah 84701

Dear Mr. Taylor,

We have reviewed the Draft Environmental Impact Statement (DEIS) and Proposed Forest Land and Resource Management Plan for the Fishlake National Forest sent to us by letter dated July 22, 1985. We appreciate the opportunity to review these documents, and the following are our comments:

(1) The value assigned to water on the study's economic analysis -- \$58.38 per acre-foot -- seems reasonable.

(2) The study's preferred alternative, Alternative 11, produces an increase in water yield over Alternative 8, the no action alternative, of 4,000 acre-feet per year uniformly over the 50-year study period, 20 percent of which would flow into the Colorado River Basin. The remaining 80 percent would go into the Great Basin, an area to be served by water diverted from the Colorado River when the Central Utah Project, Bonneville Unit, is completed. Hence, directly or indirectly, any increase in water yield on Fishlake National Forest lands will augment future supplies in the Colorado River Basin.

While Alternative 11 keeps water yield at a higher level than most alternatives, we strongly urge the Forest Service to reassess the possibility of selecting Alternative 10 as the preferred alternative. It would provide an additional 72,000 acre-feet per year in the fourth decade, and 104,000 acre-feet per year in the fifth decade, over the yield that would be developed under Alternative 11. This would represent a new water supply in the Colorado River Basin in the fifth decade of more than 20,000 acre-feet per year. At present, supply in the Colorado River Basin exceeds demand,

Mr. J. Kent Taylor  
August 16, 1985  
Page 2

but a reversal of that situation is inevitable. We prefer Alternative 10 as the more favorable alternative, not only because it yields more water on the average, but because the yield increases in conjunction with time as demand increases.

Sincerely,

*Vernon E. Valentine*  
Vernon E. Valentine  
for Chief Engineer

3. The need for additional water in the Colorado River Basin and the fact that demand will exceed supply in the near future is recognized. However, considering all of the multiple-use objectives, it appeared that Alternative 11 was the most feasible.

The figures for water flow, as with other outputs, are projections which are dependent on budget. The plan will be revised within 15 years and the water yield will be reassessed at that time.



IN REPLY REFER TO

United States Department of the Interior

FISH AND WILDLIFE SERVICE  
ENDANGERED SPECIES OFFICE  
2078 ADMINISTRATION BLDG  
1745 WEST 1700 SOUTH  
SALT LAKE CITY UTAH 84104  
September 5, 1985

J. Kent Taylor, Forest Supervisor  
USDA-Forest Service  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

Dear Mr. Taylor:

In response to your letter of July 29, 1985, concerning the draft Environmental Impact Statement and Proposed Forest Land Resource Management Plan for the Fishlake National Forest, the Endangered Species Office, U.S. Fish and Wildlife Service, has the following comments.

Four listed species have been identified as occurring on the Forest. They are the peregrine falcon (Falco peregrinus), bald eagle (Haliaeetus leucocephalus), Utah prairie dog (Cynomys parvidens) and Rydberg milk-vetch (Astragalus perlanus). Townsendia aprica (Last Chance townsendia) was listed as a threatened species in the August 21, 1985, Federal Register. This listing will be effective September 20, 1985, therefore, we have included comments pertaining to this species also.

The peregrine falcon historically nested on the Forest. No active eyries are presently known to occur there but occasional migrants are observed, therefore, we believe a "no effect" situation exists for this species.

The bald eagle is a winter migrant utilizing the Forest as hunting and feeding grounds. No roost areas have been identified. The proposed plan would maintain bald eagle habitat at existing levels, therefore, we believe a "no effect" situation exists for this species.

The Utah prairie dog has been reestablished on two sites in the Forest. The Forest Plan would maintain and improve habitat, therefore, we believe a "may effect" situation exists for this species due to proposed activities to enhance this population. When site-specific proposals are developed by the Forest to improve prairie dog habitat, Section 7 consultation should be initiated with this office.

The Rydberg milk-vetch occurs on the Forest with an estimated population of 4,000 individuals. Habitat for this species would continue to be protected under the proposed Forest Plan, therefore we believe a "no effect" situation exists for this species. The Rydberg milk-vetch is a threatened not an endangered species, as described on page 24 of the summary.

The Last Chance townsendia occurs within the Last Chance Creek drainage near the east boundary of the Forest, coal mining and road construction pose a threat to this species. When site specific projects develop, which may affect this species, Section 7 consultation should be initiated with this office

In summary, of the five listed species (effective September 20, 1985) that occur on the Fishlake National Forest, only the Utah prairie dog would be affected by proposed activities in the Forest Plan. Prior to the implementation of any proposed project that would affect this species or other listed species on the Forest, either positively or negatively, the Forest Service should initiate Section 7 consultation with this office.

If, in the future, the Plan is modified such that proposed actions would cause a "may effect" situation to any of the listed species, Section 7 consultation should be initiated.

If we may be of any further assistance please feel free to contact this office at your convenience.

Sincerely,

*Robert G. Ruesink*  
Robert G. Ruesink  
Field Supervisor

4

cc: Glen Contreras/USDA-FS, Ogden

4.

See comments on letter from U.S. Department of Interior.

VI-7



U.S. Department of Housing and Urban Development  
Denver Regional Office Region VIII  
Executive Tower  
1405 Curtis Street  
Denver Colorado 80202-2349

September 13, 1985

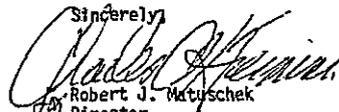
Mr. J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

Dear Mr. Taylor:

This is in response to your request for comments on the Draft Environmental Impact Statement (DEIS) for the Fishlake National Forest, in Utah.

Your DEIS has been reviewed with consideration for the areas of responsibility assigned to the U.S. Department of Housing and Urban Development. This review considered the proposal's compatibility with local and regional comprehensive planning and impacts on urbanized areas. Within these parameters, we find this document adequate for our purposes.

If you have any questions regarding these comments, please contact  
5 Mr. Myron Eckberg, Environmental Specialist, at (303) 844-3102.

Sincerely,  
  
Robert J. Matyschek  
Director  
Office of Community  
Planning and Development

5. No comment.

Sept. 19, 1985

Gentlemen:

After reviewing the proposed land and resource management plan for the Fishlake National Forest, I would like to make the following comments.

6 I am critical of the statement that there is adequate forage and habitat to support increased numbers of deer and elk and, on the other hand, in spite of the dramatic reductions in livestock numbers that have taken place during the last forty years, further slight reductions are indicated in order to maintain satisfactory range conditions. In my own case, wildlife is having a significant impact on the range and is a factor of importance in current range condition and trend. This applies to elk in particular. I would suggest that the expansion of the elk numbers be carefully monitored and expansion be slow.

7 In relation to the management of lands, I feel that many of the roads in the forest should be closed and that efforts should be made to maintain a few in good condition. I would rather travel two or three times the distance on a good road well maintained than over a short rough one.

6. The expansion of elk will be well monitored and their numbers will be held to the ability of the habitat to support them. If you are aware of a specific area on which the vegetation is stressed because of elk, we will consider it for establishment of a study transect.

7. The Plan calls for upgrading 13 miles of existing road each year. Many non-system roads will be permanently closed.

Sincerely,



John W. Wintch

Monori Peak & South Water Hollow  
% John Wintch  
466 South Main  
Manti, UT 84642

Norman P. Gregas  
512 E. Center St.  
Shenandoah, Pa. 17976

October 8, 1985

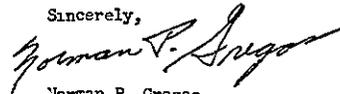
U.S.D A  
Forest Plan  
Forest Service  
Fishlake National Forest  
115 E. 900 North  
Richfield, Utah 84701

Ladies or Gentlemen:

8 Because the Forest Service has been losing money on almost every timber sales, and because road building, administration of the sales, and restoring the cutover land cost more than the sale of the timber would bring in I believe less timber sales until improvements in the system are made, would be in the best interest to the National Forest and the taxpayers.

Thank you for your time and help in furnishing the desired documents.

Sincerely,

  
Norman P. Gregas

cc

8. The timber program in the plan has an allowable sale quantity, the maximum that can be harvested on an average annual basis for the decade of the plan, of three million board feet. Actual harvest has averaged less than a third of this during the past five years.

To reduce the costs, the program does not call for the construction of any arterial or collector roads, only low standard ones in the sale area. Further, harvest methods which do not require replanting have generally been selected to minimize replanting costs.

This is a minimal program which supports small local timber operators. In addition to providing a product, logs for local mills, timber sales are designed to improve wildlife habitat through the creation of small openings in the forest canopy. Also, timber sales are sometimes necessary to keep timber stands healthy through the removal of decadent or insect infested trees.

VI-10



UTAH POST SALT LAKE  
 WILDLIFE OFFICE CITY UTAH  
 FEDERATION BOX 15636 84115

October 9, 1985

J. Kent Taylor  
 Forest Supervisor  
 Fishlake National Forest  
 115 East 900 North  
 Richfield, Utah 84701

Dear Mr. <sup>Kent</sup>Taylor:

Re Utah Wildlife Federation Comments and  
 Recommendation on the draft (EIS) for the  
 Fishlake National Forest Land and Resource  
 Management Plan (RMP)

We have reviewed the subject EIS and RMP. Attached are our specific comments for your consideration and comment.

We also reviewed the comments and recommendations provided to you from the U.S. Fish and Wildlife Service (dated September 27 1985) and the draft Utah Division of Wildlife Resources (UDWR) response. This Federation totally supports the concerns, comments and recommendations of these two agencies because their concerns are similar to our concerns.

On behalf of the more than 3,000 families represented by the Utah Wildlife Federation, I thank you for the opportunity to comment on these important documents.

- 9 We respectfully request that the UDWR's request that the RMP be recognized as the Forest Service Plan only and that the UDWR be included on all future negotiations on those matters which affect wildlife on the Fishlake Forest.

Again, I thank you for this opportunity to comment.

Sincerely,

Your friend in conservation,

GERALD E. GORDON  
 President

9. The Plan is the Forest Service's Plan for managing the land and resources of the Fishlake National Forest. During implementation of the Plan, coordination with the Utah Division of Wildlife Resources will continue on matters that affect wildlife.

enc.



UTAH POST SALT LAKE  
 WILDLIFE OFFICE CITY, UTAH  
 FEDERATION BOX 15636 84115

SUBJECT: Utah Wildlife Federation Comments and Recommendations on the Draft Environmental Impact Statement (EIS) for the Fishlake National Forest Land and Resource Management Plan (RMP)

1. Page No. II-28 (RMP) Sagegrouse

10 We are disappointed for the lack of a plan to develop and/or improve sagegrouse habitat. This Federation opposes planned range management projects that do not enhance wildlife habitat, sagegrouse included. It is our understanding that past management practices adversely impacted sagegrouse population growth on the Tidwell Slopes and the Seven Mile area.

2. Page No. II-33

11 a. The Utah Wildlife Federation cannot accept the planned management level of 82,600 deer and 3,400 elk for the Fishlake Forest. It is our understanding that these numbers are the UDR's short-term objective for the year 1990.

12 b. As stated in your documents, fish and wildlife resources do not meet current public demands for those resources. Your documents also state that the human population growth will approximate 100 percent by the year 2000. However, your most favorable wildlife and fish alternative reflects a mere 20 percent increase in fish and wildlife resources. All of the alternatives fail to meet the public needs for fish and wildlife resources.

13 c. The Fishlake Forests contain 1,424,479 acres. Surely the wildlife users (both consumptive and non-consumptive users) should expect more than one elk per 419 forest acres and more than one deer per 17 acres.

14 d. Page III-29 of the EIS states that, "Maximum habitat capability for deer and elk, with an 80% deer to 20% elk habitat ratio is 136,436 deer and 12,360 elk.

e. This Federation recommends.

15 (1) That the RMP reflect the potential carrying capacity of the Forest for deer and elk under an intensified management plan.

(2) An aggressive plan be developed for implementation using such techniques as deer and elk transplants to reach the potential carrying capacity of the range as soon as possible

(3) It appears that the Fishlake Forest can support at least 100,000 deer and at least 8,000 elk without any impact to other resources. Why not raise the objectives to these levels as a minimum?

10. The Plan uses the sage grouse as a Management Indicator Species which will prevent management practices which will adversely impact the sage grouse. Also, the Standards and Guidelines provide for habitat improvement with their direction for habitat diversity, edge effect on revegetation projects and other practices which will enhance existing habitat.

11. The numbers in the Plan are estimates developed to visualize herd sizes or populations. The actual number may be higher or lower, because it is dependent upon the carrying capacity of available habitat.

12. Even under the maximum wildlife benchmark run which maximized potential outputs for wildlife, the Forest failed to meet expected public demand for fish and wildlife resources. Without an unlimited budget, all the Forest can reasonably hope to achieve is a balanced Forest program that places increased emphasis on the fish and wildlife program.

13. As pointed out in the previous statement, the actual number will be dependent upon habitat capability. Monitoring of critical areas will be the primary means of determining carrying capacity.

14. No comments.

15. As previously stated, the habitat is the key to the actual numbers of animals. Monitoring during plan implementation will determine the carrying capacity of the habitat based upon the standards and guidelines.

VI-12

3. General Concerns and Comments

- 16 a. Does the preferred alternative automatically become the selected alternative? Alternative #1 is the preferred alternative. Why?
- 17 b. What will happen if there is no funding to do all the initiatives the plan states that it will do if it has the money?
- 18 c. Page II-4 RMP. We take exception to the statements; "Hunters, fishers, campers, and picnickers are also significant publics, they often lack formal organization to promote their interests."  
  
We believe that because of past management practices the Forest Service failed to respond to the desires of hunters, fishers, campers and picnickers in favor to users other than fish, wildlife and recreation. This statement is best supported by the fact that there has never been a range problem such as over-grazing or soil erosion attributed to too many wildlife species.
- 19 d. Page II-32 of the RMP states in part that "the majority of the aquatic habitats on the Forests are producing trout at less than their potential."  
  
We question why this is and what is going to be done to improve the production up to the potential and when will it happen?  
  
We recommend that the answers to these questions be included in the standards and guidelines.
- 20 e. Page II-39 RMP states, "Current grazing capacities were based on outputs during the most productive periods for those projects." What dates were the most productive periods?  
  
That page also states; "On some allotments, livestock management will be changed to insure that range readiness has been achieved and to protect big game winter range." Please provide specific examples of such management, when will it happen? It is recommended that such initiatives be included in the standards and guidelines.  
  
It also states; "Because riparian area management has become a major concern in recent years, management practices are being implemented which will correct many past abuses." Please provide some specific examples. We recommend that such initiatives be included in the standards and guidelines.
- 21 f. Page II-40 RMP states; "These insects take a major toll on forage in areas of concentration."  
  
When this happens are reductions in livestock made? If so, please provide specific examples.  
  
It is recommended that this condition be maintained in the standards and guidelines.
- 22 g. Page IV-I RMP states; "The Forest Supervisor may change proposed implementation schedules to reflect differences between proposed annual budgets and actual funds received."

16. The preferred alternative of the EIS was modified in light of public comment to form the selected alternative as spelled out in the Record of Decision.

17. The outputs shown in Table IV-1 of the Plan are average outputs. They are annual outputs averaged over the decade. Thus it will take several years of below average funding to reduce the outputs shown in the table.

In constructing and modeling the Plan, the Standards and Guidelines were considered the level to which any activity on the Forest must conform. Thus a reduced budget, such as in Alternatives 3 and 7 would lead to decreased outputs but not decreased standards.

18. This statement has been modified to more clearly state the existing situation. The statement is a description of organizations and the public interested in Forest use. It is not included in the section describing the Forest Plan's response to these groups' desires, as you erroneously assumed.

19. Many of the factors contributing to reduced fisheries potential are largely irreversible or not under our control. In particular, many of our lakes and reservoirs are producing at less than potential due to accelerated eutrophication, winter-kill problems, and large populations of non-game fish (particularly in Fish Lake). Although many of the problems contributing to accelerated eutrophication have been eliminated the process is essentially irreversible. The excess of nongame fish in Fish Lake and other reservoirs could be eliminated through chemical treatment, but that is a State prerogative. The Forest is experimenting with lake aeration to tackle the problem of winter-kill, but has been limited by lack of power sources on many of its lakes.

Factors contributing to reduced fisheries production in streams are largely controllable or repairable such as over-grazing, poor bank stability, and poor pool development. The Forest Plan includes extensive stream habitat improvement projects and a proposed fisheries habitat improvement budget of \$200,000 per year throughout the planning period. Repair of extensive flood damage on many of the high quality fisheries streams will use up large amounts of the proposed budget for the first decade.

20. Tentative grazing capacities are established through range analysis. However, the capability of an allotment to provide forage over time is more important than production estimates at any one point. The Forest has follow-up studies which determine if an allotment has the capability to handle the stocking levels initially established. This information is documented in allotment management plans which have to be periodically updated.

Livestock management is being changed yearly on many allotments. Reductions in livestock numbers and seasons of use have been made as shown in Table II-13 where permitted animal unit months have been reduced from 224,188 in 1944 to 136,900 in 1984. In 1984 the Watt's

If the plan is based upon increased funding and if funding actually decreases isn't this a "drop dead" weakness in the plan?

The page also states: "Changes resulting from the budget appropriation process shall not be considered a significant amendment, and will not require the preparation of an environmental impact statement."

This Federation believes that funding changes which affect the progress of the plan are significant and this Federation requests that it be advised of such impacts.

We recommend that funding be measured under the standards and guidelines.

- h. Page IV-4 RPM states, "Maintain productive streams."
- 23 It was already discussed that "aquatic habitat on the Forests are producing trout at less than their potential", so we recommend that the word improve replace the word maintain and these improvements be listed in the standards and guidelines.
- i. Page IV-5 RPM states, "Maintain or improve current soil productivity and restore areas with watershed problems."
- 24 We recommend the word maintain be deleted.
- We also recommend this initiative be included and maintained in the standards and guidelines.
- j. Page IV-21 RPM. We recommend to add to the standards and guidelines the following:
- 25 (1) Modification and construction of water developments to benefit fish and wildlife.
- (2) Modification and construction of existing fences and new fencing to benefit wildlife.
- k. Page IV-33 RPM General Direction I. Riparian area Management.
- 26 Good! If this is adhered to wildlife should be well taken care of.
- l. Page IV-42 RPM General Direction E.
- 27 We recommend that specific standards be established on this general direction.
- m. Page IV-50 RPM
- 28 (1) Management Area 6 B. There are 639,856 acres suitable for livestock grazing. However, the plan applies livestock emphasis prescription on 654,539 acres. This acreage is more than all of the wildlife, all of the watershed, all timber, all riparian all research natural areas, all non-motorized with developed recreation, all semi-primitive motorized recreation areas, and all developed recreation areas combined.

Mountain allotment plan initiated a 30% reduction in grazing to be implemented over a 2-year period.

The Forest Direction, as well as various prescriptions provide Standards and Guidelines for riparian area management.

21. When insect infestations take a major toll on forage, reductions in permitted livestock are not made. However, the animals that are permitted are removed at the time utilization of the forage reaches proper use levels. Utilization monitoring is covered in the monitoring plan. Standards and Guidelines for utilization are provided in the Forest Direction. The Forest Supervisor has authority to change the proposed implementation schedule to reflect differences between proposed annual budgets and actual appropriated funds.
22. This appears to be a question of degree. If the average funding for a program (for example Wildlife or Timber) falls so far below expectations that there is no hope of attaining the anticipated average outputs, and if those outputs are significant so that the shortfall is controversial, then the plan will be revised. The revision process is just like this initial formulation process, and will be done with full public involvement.
23. Specific improvements are already spelled out in Forest Direction page IV-19, Prescription 4A page IV-87-88, and Prescription 9A pages IV-144-145.
- Wildlife and fish habitat improvement needs are identified in Appendix D. Where improvements are not needed, it is appropriate to maintain conditions.
24. Improvements are identified for watershed projects in Appendix Q. Not all sites can be improved with the proposed funding levels for the alternative plans of action. Therefore, some sites will remain at a maintenance level.
25. A standard for water developments has been added but the standards in the Forest Service Handbook are adequate for fences.
26. No comment.
27. Standards will have to be taken on a case-by-case basis. For example, a desert site may only be able to maintain 20% cover under the best conditions, whereas some high mountain sites may be considered in poor condition if cover is reduced to 40%. A standard of 70% cover would not be acceptable for both sites, because it would not be attainable on the desert site.
28. All prescriptions are for multiple-use management, not single use management. They thus can contain areas within their borders that are not suitable for the item being emphasized. For example meadows may be included in an area assigned a timber prescription, or slopes too steep for livestock may be included in Prescription 6B. This is to keep the management areas broad. Since the prescriptions are for

This reflects that the Fishlake Forest has a livestock emphasis equal to about one-half of the total acres.

The Federation questions this emphasis. If our analysis is correct, range in decade I average annual benefits are 1,526 million dollars compared to 10,347 million dollars for recreation and wildlife. Simply stated the RRM does not adequately plan for the needs of fish, wildlife, and recreation

(2) 9 A Riparian area management.

- 29 647 acres seems low when compared to General Direction standards and guidelines goals and objectives.

Recommendation is that riparian acreage of 647 be compatible with the standards, guidelines, goals and objectives.

- n. Page S-I, EIS states; "Alternative *if* is the preferred alternative."  
30 We question why? Please explain.  
o. This Federation supports the concerns and recommendations provided to the Fishlake supervisor under separate covers from the UDMR and the U.S. Fish and Wildlife Service because their concerns are similar to the concerns of this Federation.

multiple-use, projected outputs rather than acres of a prescription describe where the Forest is putting its emphasis.

29. The riparian area prescription is compatible with the Forest-wide Standards and Guidelines from a wildlife point of view. It is a more restrictive prescription than the Forest-wide Standards and Guidelines in order to provide more protection to riparian areas and fisheries

30. The record of decision explains the reasons for choosing the selected alternative.



UTAH POST SALT LAKE  
WILDLIFE OFFICE CITY UTAH  
FEDERATION BOX 15636 84115

October 21, 1985

J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

*Kent,*  
Dear Mr. Taylor:

Re Utah Wildlife Federation Comments  
& Recommendations on the draft (EIS)  
for the Fishlake National Forest  
Land & Resource Management Plan

Please reference our October 9, 1985 written comments to you concerning the Fishlake National Forest LRP.

We have reviewed Chapter III, #6 Road System Expansion and closures of the proposed LRP. We support the planned road improvements, area closures and road closures outlined in the LRP. Please include this comment with our October 9, 1985 comments.

We appreciate the opportunity to comment on this important land and resource management plan.

Sincerely,

Your Friend In Conservation,

GERALD E. GORDON  
President

VI-16



United States Department of the Interior

OFFICE OF THE SECRETARY  
OFFICE OF ENVIRONMENTAL PROJECT REVIEW

Room 488, Building 67  
Denver Federal Center  
Denver, Colorado 80225

October 9, 1985

IN REPLY  
REFER TO

ER 85/1178

Mr. J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, UT 84701

Dear Mr. Taylor:

We have reviewed the Draft Environmental Statement and Proposed Forest Plan for the Fishlake National Forest, and offer the following comments.

Fish and Wildlife Resources

We have three general areas of concern about the Fishlake Forest Plan. These are the adequacy of existing fish and wildlife inventories, management response to human population growth needs, and resource program emphasis resulting from multiple use analysis.

31 Past experience with this and other Forests has been that inventory data for raptors and migratory birds of high Federal interest has not been adequate to make the balanced decisions needed for multiple use management. It does not appear that the proposed Plan provides a clear policy to inventory, or protect habitats for, sensitive species such as cavity nesters or raptors on site-specific activities. For instance, removal of the remaining pines at old sale sites in the vicinity of the SUFCO Mine would reduce the canopy coverage below the threshold levels for the Williamson's sapsucker and western bluebird. Both are sensitive bird species and are on the "Migratory Birds of High Federal Interest" list for the coal program. Species placed on this list are there because they are particularly sensitive to disturbance and receive special protection under law or may be declining regionwide.

Activity in the past to protect snags is evident by the Forest's identification of wildlife trees or snags. This program, while laudable, apparently does not recognize the same values that aspens provide as nest sites. Unauthorized firewood cutting has removed many of these identified snags, rendering the mitigation measure largely ineffective.

In our specific comments (appended to this letter), we have recommended that specific Standards and Guidelines be strengthened to recognize and provide for adequate inventories. As stated in the EIS, the Standards and Guidelines are also the mitigation measures (EIS II-31).

32 In regard to our second concern, fish and wildlife resources fail to meet current public demand for both consumptive and nonconsumptive uses. This situation will be exacerbated if the projection for growth of human populations by the year 2000 (RMP, p. II-7)

31. The list of Management Indicator Species (MIS) is comprehensive enough to take care of the concerns you express. Other protections are also built into the plan in the Standards and Guidelines. The Forest also operates under the direction of policy statements such as the Snag Policy. We also coordinate with other entities such as the Division of Wildlife Resources and U.S. Fish & Wildlife Service. The removal of snags identified for retention is unfortunate and law enforcement will be increased to provide more protection.

32. The possibility of bringing the supply of wildlife resources up to the demand is something that will never happen. The demand will always be higher than the habitat can support. This Plan will move these gaps closer together under a multiple-use concept. The Forest is currently developing a wildlife transplant policy which will also help to alleviate the concerns you express.

Even under the maximum wildlife benchmark run which maximized potential outputs for wildlife, the Forest failed to meet expected public demand for fish and wildlife resources. Without an unlimited budget, all the Forest can reasonably hope to achieve is a balanced Forest program that places increased emphasis on the fish and wildlife program.

VI-17

are realized. The most aggressive alternative in terms of wildlife and fisheries values provides only about a 20 percent increase (compared to a 100 percent human population increase).

None of the alternatives ambitiously meet this demand for wildlife resources. For example, what is the potential carrying capacity for elk and deer under intensive management? When could this level be reached? The Plan has identified a significant projected shortfall of hunting, viewing, etc. opportunities. Ambitious programs such as supplemental transplanting of wildlife (e.g. elk) to bolster existing populations or to establish new populations need to be implemented to fill the existing habitat (EIS S-7) as quickly as possible.

- 33. It was noted on page IV-50 (RMP) that livestock grazing is proposed to be emphasized on 654,539 acres (46 percent of the Forest). Yet on page II-37, the RMP indicates only 639,856 acres are suitable for livestock grazing. Acreage emphasized for grazing exceeds the acreage emphasized for all recreation, fisheries, wildlife, wood production, and riparian combined (628,540).

At the same time, the EIS indicates that wildlife and recreation account for nearly half the projected annual benefits under Alternative 11 (EIS II-64). Range and timber account for less than 5 percent each. It is apparent that to receive maximized benefits, range and timber should be used as tools to accomplish improvements needed in the wildlife and recreation programs. Wildlife populations should be maximized and range and timber meshed where remaining opportunities exist.

Demands for fuelwood, timber, minerals, livestock, and rights-of-way have caused the continued degradation of many fish and wildlife resources. In many instances, mitigation has not occurred, has not been compensatory, or has not been effective. On a cumulative basis, these impacts are mounting and should be addressed.

To summarize, we believe that the Forest Plan, while providing benefits to wildlife, does not adequately recognize the needs of fisheries and wildlife. It should consider deemphasis of programs such as livestock and timber, taking into consideration cost effectiveness and tempering such programs as minerals and lands where fisheries and wildlife values are degraded without compensation or mitigation. The U.S. Fish and Wildlife Service would be pleased to work with you in resolving the issues discussed in these comments.

Threatened and Endangered Species

- 34. Five listed species have been identified as occurring on the Forest. They are the peregrine falcon (*Falco peregrinus*), bald eagle (*Haliaeetus leucocephalus*), Utah prairie dog (*Cynomys parvidens*), Rydberg milk-vetch (*Astragalus perianus*), and *Townsendia aprica* (Last Chance townsendia).

The peregrine falcon historically nested on the Forest. No active eyries are presently known to occur there but occasional migrants are observed, therefore, we believe a "no effect" situation exists for this species.

- 33. All prescriptions are for multiple-use management, not single use management. They thus can contain areas within their borders that are not suitable for the item being emphasized. For example meadows may be included in an area assigned a timber prescription, or slopes too steep for livestock may be included in Prescription 6B. This is to keep the management areas broad. Since the prescriptions are for multiple-use you should look at projected outputs rather than acres of a prescription.

- 34. Any management practices contemplated by the Forest, which may affect the listed species you mention, will be coordinated by consultation with the US Fish & Wildlife Service.

VI-18

Mr. J. Kent Taylor

3

The bald eagle is a winter migrant utilizing the forest as hunting and feeding grounds. No roost areas have been identified. The proposed plan would maintain bald eagle habitat at existing levels; therefore, we believe a "no effect" situation exists for this species.

35 The Utah prairie dog has been reestablished on two sites in the Forest. The Forest Plan would maintain and improve habitat; therefore, we believe a "may effect" situation exists for this species due to proposed activities to enhance this population. When site-specific proposals are developed by the Forest to improve prairie dog habitat, Section 7 consultation should be initiated with the U.S. Fish and Wildlife Service (USFWS) office in Salt Lake City, UT.

The Rydberg milk-vetch occurs on the Forest with an estimated population of 4,000 individuals. Habitat for this species would continue to be protected under the proposed Forest Plan, therefore we believe a "no effect" situation exists for this species. The Rydberg milk-vetch is a threatened not an endangered species, as described on page 24 of the summary.

The Last Chance townsendia occurs within the Last Chance Creek drainage near the east boundary of the Forest; coal mining and road construction pose a threat to this species. When site specific projects develop which may effect this species, Section 7 consultation should be initiated.

Prior to the implementation of any proposed project that would affect any listed species on the Forest, either positively or negatively, the Forest Service should initiate Section 7 consultation with the USFWS Endangered Species Office in Salt Lake City, UT. If, in the future, the Plan is modified such that proposed actions would cause a "may affect" situation to any of the listed species, Section 7 consultation should be initiated.

#### Mineral Resources

The subject documents adequately discuss mineral resources and the impacts each alternative would have on mineral-related activities. Past, present, and possible future mineral activities in the forest are discussed (DEIS pp. II-52-57, PLRMP pp. III 50-55). Geologic potential (evaluated as high, moderate, and low) for the occurrence of coal, oil and gas, uranium, and geothermal resources are described (DEIS pp. III-53-55). Table IV-24 (DEIS p. IV-49) compares acreage by alternative for each oil and gas potential category with areas where exploration and development activities would be restricted by proposed land management practices (restriction categories are total, high, moderate, or low). Methodology and results of applying the unsuitability criteria to high and moderate-potential coal areas are explained in Appendix O (PLRMP). Standard and special stipulations that could be applied to leases are included in the PLMRMP (appendix H).

36 The discussion of the oil shale withdrawal (DEIS p. II-4) is inaccurate and incomplete. Executive Order 5327, which temporarily withdrew deposits of oil shale and lands containing such deposits from the mineral laws of the United States, was dated April 15, 1930—not June 25, 1910. On January 26, 1967, the Bureau of Land Management filed an application for withdrawal of all oil shale deposits of public lands in Wyoming, Utah, and Colorado. We understand that a revocation of the oil shale withdrawal in the Fishlake

35. We agree. Consultation will be initiated.

36. Existing oil shale withdrawal acreages have been corrected. PLO 5157, dated February 7, 1972, deleted oil shale withdrawals on Fishlake National Forest lands.

Mineral constraints are primarily associated with Prescriptions 3B and 10A. These areas are shown on the Forest maps.

National Forest is pending. The final documents should clarify whether lands in the oil shale withdrawal are open to mineral location and leasing, and should accurately reflect the acreage of lands withdrawn.

The usefulness of the documents would be enhanced by addition of maps showing areas having mineral potential and areas where management practices would constrain mineral-related activities. Such maps would facilitate assessment of the impacts each alternative would have on mineral exploration and development activities.

37 Tables II-10 through II-20 (DEIS pp. II-33-64) project the average annual benefits, costs, and returns for each alternative throughout the 50-year planning period. It is not clear, however, why mineral income projections are the same for each of the proposed alternatives. Stated goals or objectives of alternatives 2, 5, 7, and 10 are to maximize resource output, including minerals, alternatives 9 and 11 have a specific objective of rehabilitating inactive mines (DEIS pp. II-31-62). Also, under alternatives 5, 6, and 10, there are fewer restrictions on mineral activity in areas that have moderate potential for oil and gas (Table IV-25, DEIS p. IV-53). Subsequent versions of the documents should consider the effects each alternative would have upon projected mineral output.

Coal

38 The draft EIS does not analyze in detail the impacts that could result from coal leasing and development beyond that evaluated in the Uinta-Southwestern Utah Coal Region Final EIS, Round 2. The Forest Plan should note that additional environmental analysis and coordination with the Bureau of Land Management will be necessary before any additional coal leasing occurs. We commend the Forest Service for addressing unsuitability criteria for coal leasing under 43 CFR 3400 in Appendix O of the Proposed Land and Resource Management Plan.

Water Resources

None of the alternatives under consideration would have any impact on any Bureau of Reclamation project. Although the Sevier River portion of the proposed Irrigation and Drainage System of the Bonneville Unit is within the scope of the Forest Plan, no facilities would be constructed on the National Forest. Also, all of the alternatives would maintain the current water yield capabilities of the Sevier River drainage so the Bonneville Unit water supply would remain as presently projected.

The study area for Reclamation's Wasatch Front Total Water Management Study encompasses parts of Juab, Millard, and Sanpete Counties that are within the Fishlake National Forest. The goals and objectives of the Forest Plan will be embodied in the water management study through consultation with the Forest Service.

39 The EIS should discuss precautions to protect wells and springs against pollution when using herbicides to control weeds.

Drilling of seismic shotholes and geothermal, oil, and gas testholes is mentioned. The requirements for filling and sealing the abandoned holes to protect groundwater resources should be discussed.

37. There currently are three mineral related developments on the Forest that produce all but an insignificant portion of the minerals benefits. These projects are: The Sufco Coal Mine, Martin-Marietta Cement Plant, and Mother Earth Industries Geothermal Plant. These are all long term operations. Since mineral activity is basically a walk in use of the Forest that is controlled by world wide economic conditions, future activity cannot be anticipated. Displaying the restrictions on mineral activity by alternative describes the effects on minerals of the alternative.

38. The information requested is given in Appendix O. A statement on coordination with the BLM has been added.

39. An EIS is presently being prepared covering noxious weed control throughout the Intermountain Region. This will be completed in the summer of 1986 and will cover possible water contamination.

The standard stipulations provided in Appendix H of the Forest Plan cover the requirements for restoring a site following completion of the project work. Permittees are bonded to insure that work is completed.

In the preferred alternative (the Plan) portions of the municipal watershed areas, listed in the current alternative, are covered by prescriptions for Watershed and Wildlife. This provides the needed protection for the watersheds while increasing flexibility to allow other uses.

Mr. J. Kent Taylor

5

We note that the acreage assigned to municipal watersheds under the planned management prescription is to decrease from the current 3,636 acres to 1,179 acres. This should be explained.

Capitol Reef National Park

- 40 We would like to see consideration in the plan for fencing by the U.S. Forest Service (USFS) of the common boundary between Fishlake National Forest and Capitol Reef National Park. Intrusions of cattle onto park lands occur with consequent impacts on the vegetation in that part of the park.
- 41 There is no mention of the proximity of the Fishlake National Forest to Capitol Reef National Park, a Class I Air Quality area. Coal leases on USFS lands are present near the boundary, and use of the dirt access road (State Road 72) and the potential mining activity itself should be considered as potential threats (primarily dust) to Capitol Reef's air quality. The nearby Cathedral Valley/Upper South Desert overlook in the park has been proposed as an integral vista for the Utah Statewide Air Quality Implementation Plan.

National Natural Landmarks

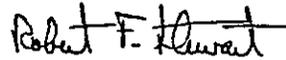
- 42 Specifics on proposed National Natural Landmarks should be included. For information on these you may contact Ms. Carole Madison, National Park Service, Rocky Mountain Regional Office, 655 Parfet Street, P.O. Box 25287, Denver, CO 80225.

Corridors

- 43 There are some potential conflicts between "windows" described in the Forest Plan and the Bureau of Land Management's analysis for corridors on public lands. As it is in the public interest for acceptable potential rights-of-way to be compatible across adjoining Federal lands, these conflicts need to be resolved through discussions between BLM and the Forest Service.

40. This issue is between the Park and the livestock owners. As the Agency superimposing a change in management, we believe it is the Park Service's responsibility to work with the livestock owners to arrive at an acceptable solution. The Forest would be willing to help as a liaison in this matter.
41. Standards and Guidelines were added to the Forest Direction to insure consideration is given to air quality when any activities occur near Capitol Reef National Park. Dust from State Highway U-72 should be no worse than dust from the Burr Trail which is within the National Park.
42. A discussion of National Natural Landmarks has been added.
43. The Forest is keeping in touch with the BLM on this problem and is awaiting the documentation of this analysis. To help solve the problem, the use of the word "window" is being redefined.

Sincerely,



Robert F. Stewart  
Regional Environmental Officer

Enclosure

VI-21

### SPECIFIC COMMENTS - PROPOSED FOREST PLAN

- The Forest Standards and Guidelines (RMP, IV-10) establish the "baseline" requirements maintained in carrying out the Forest Plan. This is a good start, but we believe that they need to be bolstered to further protect wildlife and fisheries resources.
- 44 Page IV-11, item 4: Standards and Guidelines should be established to provide maximum nesting opportunities for cavity nesting birds and raptors. They also need to address other critical wildlife functions. Aspen communities provide the majority of cavity nest sites of the areas surveyed and primary nest sites for tree-dwelling raptors.
- 45 Page IV-18, Wildlife and Fish Resource Management (WFRM), item 1: Standards and Guidelines should require site-specific inventories for high Federal interest species at all sites undergoing surface disturbance, fuelwood and timber cutting, or where non-surface disturbing activities such as seismic exploration will interrupt critical life functions near raptor nest sites.
- 46 Page IV-18, WFRM, item 2: The Standards and Guidelines should notes that the "Eagle Act" and the "Migratory Bird Treaty Act" provide more restrictive regulations regarding activities that affect nesting birds, especially eagles.
- 47 Page IV-18, WFRM, item 3: The Standards and Guidelines should require the reestablishment of or supplemental stocking of all suitable sites by a specified date.
- 48 Page IV-18, WFRM, item 6: The Standards and Guidelines should require monitoring of these species populations to assure they are not being impacted by other programs. Inventories should be completed to establish baseline data.
- 49 Page IV-21, Wildlife and Fish Cooperation with Other Agencies, add new item 2: Coordinate with the U.S. Fish and Wildlife Service on all matters dealing with diversion or modification of waters of the United States as required under the Fish and Wildlife Coordination Act and the Clean Water Act.
- 50 Page IV-23, Range Improvement and Maintenance (RIM), item 2: Standards and Guidelines should require all watering devices to be modified to prevent entrapment of wildlife. All new fences should provide for safe passage of big game. Existing fences should be checked and when needed modified to meet standards or removed. Where possible, ponds should be designed and/or protected to provide waterfowl and shorebird hiding and nesting habitat. The Standards and Guidelines should specify how many and when these items are to be completed.
- 51 Page IV-24, RIM, new item 3 Exclude livestock or reduce grazing as required to allow reestablishment of stable or improved conditions along riparian communities. The Standards and Guidelines should specify the standard for judging this condition and when it will be reached.
- 52 Page IV-27, item 3 and page IV-90, item 7: Revise to reflect that impacts to other resources could override these statements, particularly for sensitive or Threatened and Endangered species.
- 53 Page IV-29, item 7 Standards and Guidelines for wildlife habitat should be stipulated. Protected trees need to be aggressively monitored. Management of dead and defective trees should err on the side of wildlife needs.
44. The Standards and Guidelines in Wildlife and Timber, combined with the MIS protection concept for cavity nesting species, and the Forest Snag Policy, will give adequate protection to cavity nesting species and raptors. (Forest Snag Policy is outlined in Forest Service Manual 2630, Fishlake Supplement #1)
45. All of the activities mentioned are required to have an environmental assessment prior to implementation. With the new Standards and Guidelines and MIS concept, this interdisciplinary evaluation will provide the site-specific analysis.
46. The Forest Plan does not negate existing laws, regulations, etc. The acts you mention are binding on Forest Management.
47. The Forest is currently developing a transplant policy and will work with the Utah Division of Wildlife Resources for any stocking of suitable sites.
48. These species are considered and analyzed before any project, which might affect them, is implemented. See Monitoring Requirements (LMP page V-6).
49. The addition has been made.
50. The Standards and Guidelines have been modified to include water development directions. Fencing guidelines are contained in the Forest Service Handbook. The Forest Plan would be too bulky if it contained the specificity you suggest. As the Forest moves forward into improved riparian area management much of the habitat improvement for waterfowl will be accomplished.
51. Riparian Standards and Guidelines are found under Riparian Area Management (LMP IV-34) for all riparian areas not included under a 4A or 9A Management Area. Specific Standards and Guidelines can be found under Prescriptions 4A and 9A for those management areas.
52. The Standards and Guidelines on page IV-11 concerning habitat diversity and page IV-19 concerning T&E and Sensitive species, adequately cover your concerns.
53. The Plan and Forest Policy for Snags adequately provide for wildlife habitat Monitoring and prevention of cutting of these trees will require a great deal of time and effort. Budgeting will be the determining factor on the effectiveness of the latter.

- 54 Page IV-37, Minerals Management Leasables, item 1: Assure that site-specific studies have been completed to insure proper consideration of fish and wildlife resources and that the need for stipulations have been recognized.
- 55 Page IV-44, Transportation System Management, new item 4. Where wildlife losses are excessive, provide mitigation by modified road shoulders, alignment, fences, or other methods such as deer reflectors to reduce losses.
- 56 Page IV-98, item 2. Goals should reflect future demand for resources if greater than current UDWR goals.
- 57 Page IV-99, items 1 and 2: Management of timber may require less than optimal agricultural treatments to benefit wildlife for these 4B areas. Forest management should be responsive to fish and wildlife needs and flexible as relates to percent treated and at what rotation.
- 58 Page IV-109: We urge that conflicts between livestock and wildlife be resolved in favor of wildlife where winter range, critical winter range, or critical life functions (e.g. sage grouse strutting and nesting areas) occur.
- 59 Page IV-112, WFRM, items 1 and 2. Maintain habitats as required to meet future demand for resources.
- 60 Pages IV-117, 124, 131, and 137, Wildlife Management Activities: New sections need to be provided to address and protect critical wildlife habitats. These include habitat for Threatened and Endangered species, critical winter ranges, snag management, raptor nesting and other critical life functions.
54. General Direction under Item 1 covers other resource uses. This is adequate without itemizing wildlife, fish, watershed, recreation and timber.
55. Prescription 5A has been changed to provide for mitigation. Also, the Management Indicator Species (MIS) concept precludes projects causing excessive losses in wildlife numbers.
56. The entire Plan is directed toward the future demands on the Forest. Actual numbers of these species will be dependent upon the carrying capacity of available habitat and will be coordinated with the UDWR in development of habitat management plans.
57. Your concerns are noted, and it is felt that the Plan contains adequate safeguards to prevent significant problems for wildlife.
58. The description of this prescription has been modified to more clearly reflect the multiple-use aspects which are built into all prescriptions. The Standards and Guidelines in the Forest Direction, as well as Prescriptions 4A, 4B and 5A, provide for protection of wildlife critical areas.
59. The Forest Plan is a multiple-use plan. The future demand for wildlife could not be met even if all other demands on the Forest were subjugated to wildlife. The Plan moves wildlife resources toward the demand as far as is practicable during this 10 year planning period.
60. All of the concerns you express here are covered in the prescriptions, Standards and Guidelines and existing mandates or policies.



October 17, 1984

8 EAST 300 SOUTH  
418 JUDGE BUILDING  
SALT LAKE CITY, UTAH 84111  
TELEPHONE 388-3672

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Vern Wingo  
John Wenzel  
Malcolm Young

Mr. J. Kent Taylor  
Forest Supervisor  
115 East 900 North  
Richfield, UT 84701

Dear Mr. Taylor:

We have reviewed the Draft EIS, and Proposed Land and Resource Management Plan. We thank you for supplying us with the plans; however, in reviewing the plans we recommend the following be considered in your final decision.

- 61 1. We observe no statement that predators can be controlled on the Fish Lake Forest. We therefore recommend a statement be included, "Predator control will be allowed on the Fish Lake Forest as is developed by the Animal Damage Control Program and Forest Service."
- 62 2. In each alternative you recommend a reduction in AUM's for domestic livestock. Your statement tells us sheep are only 25 percent of their original AUM's and cattle 81 percent of their AUM's. We recommend you give every consideration to no more reductions in either class of livestock, and that you review the plan so common use of some areas can be used. Or, at least an alteration of exchanging cattle and sheep on respective allotments would certainly be an advantage and improve the ranges.
- 63 3. One final statement you make is to increase wildlife 300 percent. Have you given any consideration to private land adjoining the Forest Service land? If private operators trespass on Forest Land there are problems, how about elk and deer trespassing on private land? When they do, they rob private land owners of AUM's and cause damage. Think this over, it is a problem and may get serious under the proposal of your organization and DWR.
- 64 4. On wildlife transplants we recommend no wolves or grizzly, brown and black bears be transplanted on the Fish Lake Forest, and that very careful consideration be given to the owners of sheep prior to transplanting Rocky Mountain sheep. The crossing of domestic sheep and Rocky Mountain sheep is a great financial loss to domestic sheep operators.

61. Predator control is covered in the Plan. See page IV-21 1. A.
62. The objective is to bring stocking rates on all allotments in line with carrying capacities of the range. These determinations are made after years of evaluation, and are documented in allotment management plans. In some cases, cattle and sheep are using the same range and there are some opportunities to improve the range.
63. The Plan does not necessarily propose increasing big game numbers. The values shown are for the winter range carrying capacity which is the limiting factor. We acknowledge that some of the winter range traditionally used by big game is off the Forest and can lead to private land depredations. We have considered the problem, and believe part of the solution is habitat improvement in winter range areas of the Forest.
64. The Forest is working toward developing a policy for animal transplants. Within this planning period no wolves, brown, black or grizzly bears will be considered for transplants. In the event that bighorn sheep are considered, owners of sheep will be consulted prior to any introduction.

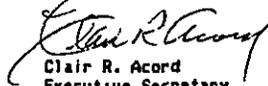
J. Kent Taylor  
Page 2

5. As far as timber, minerals, recreation, and water development are concerned, continue to follow the pattern of good sustained yield.

- 65 Keep in mind that the livestock industry of your area is the backbone of many of the counties and communities surrounding the Fish Lake Forest. The industry is needed to make maximum usage of the total area.

Sincerely,

UTAH WOOL GROWERS ASSOCIATION



Clair R. Acord  
Executive Secretary

CA:tr

65. Agreed that there is a need to maintain resource values over time and that the livestock industry plays an important role in nearby communities.

# 0. 10. 12  
10/10/82

Utah  
Fish Lake National Forest  
115 East 900 North  
Rich Field, Utah 84701

Dear Dave,

Please accept my sincere thanks as follows concerning  
David Swanson's recent report statement - Private Land and Resource Management Plan -  
Fishlake National Forest

I have been acquainted with this area of Utah for many years, and continue to return there very frequently. I do not consider this area as a wilderness under any definition, but I do believe that it should be preserved as a natural resource for future generations. I am sure that you will find it to be a valuable asset to the State of Utah and to the Nation. I am sure that you will find it to be a valuable asset to the State of Utah and to the Nation. I am sure that you will find it to be a valuable asset to the State of Utah and to the Nation.

I am sure that you will find it to be a valuable asset to the State of Utah and to the Nation. I am sure that you will find it to be a valuable asset to the State of Utah and to the Nation. I am sure that you will find it to be a valuable asset to the State of Utah and to the Nation.

66

It is my hope that the following areas and areas located on this Fish Lake National Forest will be fully classified and given the same protection as each such unit receives under the Wilderness Act, and included on our National Wilderness Reference System - at this time

It is my hope that the following areas and areas located on this Fish Lake National Forest will be fully classified and given the same protection as each such unit receives under the Wilderness Act, and included on our National Wilderness Reference System - at this time

- Oak Creek 52117
- Wood Canyon 6542
- North Point 56084
- Beehive Peak 64613
- Bear Canyon 72777
- Point 89261
- Mountain Peak 79336
- White Mountain 22544
- Steep Mountain 19805
- West Basin Creek 11643
- Old Woman Plateau 15617
- Deep Hole Canyon - UTM Section 37,612
- Johns Peak - Mt. Zion 11248
- Signal Peak 42882
- Mountain Peak 23209
- Peaks on the west 56,000 acres

- 44,000 acres 37860
- Johnson Basin 17,612
- Johnson 14982
- Fish Lake 28,743
- Johnson 42,608
- Johnson 12,266
- Johnson 5,959
- Johnson 29,347
- Johnson 65,814
- Johnson 17,076
- Delano 13,463
- Johnson 19,031
- Point 7843
- Circleville 21,979
- Johnson 11,772
- Johnson 17,113

to secure a total of some 933,000 acres of wilderness to be located on this Fish Lake National Forest - only to be included in our National Wilderness Reference System - at this time. I am sure that you will find it to be a valuable asset to the State of Utah and to the Nation. I am sure that you will find it to be a valuable asset to the State of Utah and to the Nation. I am sure that you will find it to be a valuable asset to the State of Utah and to the Nation.

66.

One of the basic purposes of the National Forest is to preserve the wilderness, scenic values, wildlife, fish, botanic, and cultural resources. While the Forest Service does have a responsibility to manage these resources, it also has responsibilities to manage for multiple uses of grazing, timber, developed recreation, minerals, and other uses.

The Utah Wilderness Act of 1984 designated no area as wilderness on the Fishlake National Forest. The Utah Wilderness Act also contains language which states that roadless and undeveloped lands in the National Forest System in Utah need not be managed for the purpose of protecting their suitability for wilderness designation prior to or during revision of the initial land management plan. This plan cannot and does not recommend additional areas for wilderness designation during the planning period. (1985-2000).

VI-26



United States  
Department of  
Agriculture

Soil  
Conservation  
Service

P.O. Box 11350  
Salt Lake City, UT 84147

# The Nature Conservancy

Utah Public Lands Protection Planning  
2225 South Highway 89-91  
Wellsville Utah 84339  
(801) 752-4154

October 22, 1985

October 28, 1985

J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, UT 84701

Mr. J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, UT 84701

Dear Mr. Taylor:

Dear Mr. Taylor:

We have reviewed the draft Environmental Impact Statement and Proposed Forest Land and Resource Management Plan for the Fishlake National Forest, covering lands in Beaver, Garfield, Iron, Juab, Millard, Piute, Sanpete, Sevier, and Wayne Counties in the State of Utah. We have no comments.

Thank you for this opportunity to comment on the draft planning documents developed for the Fishlake National Forest. Overall I found the Draft Environmental Impact Statement (DEIS) and the Proposed Land and Resource Management Plan (PLRMP) to be well-written and readable. I welcome this chance to be involved in the planning which will guide the future direction of the Fishlake National Forest.

We appreciate the opportunity to review the documents.

Let me preface my comments with some brief words about The Nature Conservancy. The Conservancy's goal is to preserve natural biological diversity, by identifying and protecting examples of the full array of ecosystems and species in the natural world. We are focusing our resources on those parts or "elements" of the natural world which are the most scarce: rare plant and animal species, rare communities, and undisturbed remnants of conifer communities.

Sincerely,

The Conservancy's Rocky Mountain Heritage Task Force has summarized the best scientific information available on the locations of Utah's scarce species and communities. In working with these data I have found that the majority of Utah's rare species and relict areas occur on federally administered lands. This is not surprising in light of the fact that about two-thirds of Utah is under federal ownership. My specific objective is to work with the Forest Service and other land-management agencies, to assure the maintenance of certain natural areas and rare species on lands which these agencies administer.

*Francis E. Burton (acty)*

FRANCIS T. WOLT  
State Conservationist

cc: Director of Ecological Sciences, SCS, Washington, DC  
George Bluhm, Director, WNTC, SCS Portland, Oregon

The Nature Conservancy has taken two approaches in its work with the Forest Service. Under a series of Cooperative Agreements, we have assisted the Forest Service with certain tasks involving the designation of Research Natural Areas. We are also participants in the Forest planning process, realizing that decisions which affect natural areas and rare species will be made through that process.

(p. 2)



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VI-27

Mr. J. Kent Taylor  
October 28, 1985  
p. 2

My comments in the remainder of this letter will deal specifically with the Conservancy's two main topics of interest with regard to the Fishlake National Forest's Land and Resource Management Plan: 1) Research Natural Areas, and 2) endangered, threatened and sensitive species.

Research Natural Areas

The Research Natural Area (RNA) designation is an excellent tool to protect the natural values represented in certain relict remnants of the landscape. The Forest Service recognizes the value of RNA's as baseline areas for monitoring management practices, and as scientific reference areas for studying ecological systems. RNA's are usually established to include undisturbed examples of common types of communities. However, RNA's may also protect unusual or uncommon types of habitats.

Only four RNA's presently exist on National Forests in Utah. One of these, Partridge Mountain, is on the Fishlake National Forest. I support your recommendation in the draft planning documents to maintain this area as an RNA, and urge that this decision be carried over into the Final EIS and Final Plan.

Under three Cooperative Agreements with the Forest Service, the most recent being Supplement Number 22-C-5-INT-59, the Conservancy is assisting Region Four and the Intermountain Station with the inventory and establishment of new RNA's. Through the end of 1984, my associates and I had assessed the RNA potential of four specific sites on the Fishlake National Forest. Of these, we recommended two as worthy of RNA designation. I am pleased to see that these two, Bullion Canyon and Upper Fish Creek, are identified as RNA candidates in the DEIS and PLRMP. I strongly urge you to retain these two sites as RNA candidates in the Final EIS and Final Plan.

67 RNA potential of a site known as "The Cove" on the Richfield Ranger District. My conclusion is that this site also appears worthy of RNA status. This conclusion comes much too late to have been included in the DEIS and PLRMP. I have, however, prepared a report which recommends RNA candidacy for this site, with the goal of having the Forest analyze it for inclusion in the Final EIS and Plan. My report is included with this letter as Attachment 3. Otherwise, the remainder of my comments in this letter do not specifically address RNA candidacy for The Cove.

I note that RNA establishment and management are included as both Goals and Management Requirements in the Forest Direction section of the

67. The Cove area is not included as a proposed Research Natural Area because the factors that have maintained it in a pristine condition will continue to function. Further the relationship this area has with coal merits a more detailed review than can be done at this stage of the planning process. This area will be reviewed during the implementation phase of Forest Planning.

Mr. J. Kent Taylor  
October 28, 1985  
p. 3

PLRMP (pages IV-6 and IV-12). Backed by your proposed actions mentioned on the previous page, this statement shows a good commitment on the part of the Fishlake National Forest to contribute to a system of natural areas in the Intermountain Region. These actions also show a commitment on your part in dealing with the RNA requirements in the National Forest Management Act.

The comments which follow concern how the DEIS and PLRMP treat the management of candidate and established RNA s. In some cases I will lend support to specific statements and policies which you have included in the draft planning documents. I will also suggest some specific additions and clarifications which could result in improving the Final EIS and Final Plan.

My first observation deals with the management of candidate areas prior to their formal designation. I agree with the statement on page IV-5B of the DEIS that RNA candidates should be managed to retain their pristine character, pending a decision on establishment via the Establishment Record process. I also note that the protective RNA management prescription is to be applied to proposed as well as designated RNA s (DEIS page B-31). It would be good to have such direction stated in the Forest Plan as well as in the EIS. However, I found no such statement in the PLRMP. Perhaps this could be added within Chapter IV (Management Direction) in the Final Plan. If an RNA candidate is subsequently rejected, then the Plan should state that that particular tract will be managed according to the prescription assigned to the adjacent or surrounding area.

I am especially interested in how the Plan will address management of established RNA s. First, I have some specific comments concerning the management requirements for Prescription 10A (pages IV-155-157 of PLRMP). I found this section to be quite comprehensive in listing the requirements for RNA s, but I would like to suggest a few specific additions:

- \* Under General Direction for the Wildlife Habitat Improvement and Maintenance activity, add the statement: "2. Prohibit introduction or spread of exotic wildlife species." I believe that this specific statement is necessary in light of the planned introduction of mountain goats into the high Tushar Mountains.
- \* Under General Direction for the Range Resource Management activity, add the statement "2. Prohibit range improvements."
- \* Under General Direction for the Silvicultural Prescriptions activity, add the statement: "2. Closed to fuelwood gathering."

(p. 4)

68. Agreed. Change made to Prescription 10A.

69. Agreed. These changes were made to Prescription 10A.

Mr. J. Kent Taylor  
October 28, 1985  
p. 4

\* Add "Minerals Management (Leasables) (602-07)" under the Management Activity column. There are two choices for the accompanying General Direction, either of which can be applied on a case by case basis:

- A statement which closes RNA s to mineral leasing can be justified based on the Irreversible and Irrecoverable criteria documented on page IV-37 of the PLRMP. Further, on DEIS page IV-51 it is stated that discretionary withdrawal from leasing (total access restriction) may include RNA s.
- 70 - At a minimum, a statement of No Surface Occupancy for RNA s is necessary. This can be accomplished by using special stipulations I or J as outlined in Appendix H of the PLRMP.
- 71 \* Under General Direction for the Transportation System Management activity, add the statement: "2. Closed to all motorized vehicles." This supplements the direction given in the Travel Plan (PLRMP Appendix P).

Statements regarding management activities for RNA s appear in other locations within the draft planning documents. For the most part, such statements lend background support to the management direction in Prescription 10A. The following comments refer to these various supporting statements.

On page B-32 of the DEIS, I see that no structural or non-structural developments are allowed in Prescription 10A as modeled in FORPLAN. In addition, the next two pages show that Prescription 10A is non-suitable for timber harvest as modeled in FORPLAN. Further, Appendix B of the PLRMP shows that forest land in established RNA s is withdrawn from timber production, and forest land in proposed RNA s is not appropriate for timber production.

Deposits of locatable minerals occur in or near some proposed RNA s. For example, a high mineral potential exists in the Tushar Mountains, where the proposed Bullion Canyon and Upper Fish Creek RNA s are located (see DEIS page IV-58). As a result, the draft planning documents mention that there is a potential for conflict between mineral development and existing and proposed RNA s (DEIS page IV-81). Specifically, a slight negative effect on socioeconomic conditions might be felt in the Piute Human Resource Unit if Bullion Canyon and Upper Fish Creek are designated as RNA s (DEIS pages IV-69, B-58).

- 72 I do not believe that potential mineral conflicts are serious enough to disestablish the Partridge Mountain RNA, or to impede RNA designation for the two candidates in the Tushar Mountains. Existing and candidate RNA s are encumbered but not formally withdrawn from operations of the

70. Agreed. Change made to Prescription 10A.

71. This direction would be too restrictive and could seriously impair research in the areas. The direction under recreation as it presently stands, gives the Ranger the authority to prevent motorized recreation in the areas.

72. Partridge Mountain is not an issue that we know of. It is a designated Research Natural Area, and the Plan makes no change from this.

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mining laws (DEIS page III-51; PLRMP page II-50). As stated clearly on page IV-58 of the DEIS, designation of RNA's does not constitute a mineral withdrawal; the decision to establish an RNA and the decision to withdraw an area from mineral entry are two distinct and separate decisions. It is the policy of the Forest Service's Intermountain RNA Committee to go forward with RNA establishment on most mineralized sites, realizing that a few areas might be disturbed by mining activities if economic conditions change.

73 There seems to be less potential conflict between RNA's and development of leasable-mineral deposits on the Fishlake National Forest. I previously recommended that limitations on leasing be written into Management Prescription 10A (RNA's). I believe that it would also be appropriate to mention RNA leasing limitations within the Forest-wide Management Requirements section in Chapter IV of the Plan. On page IV-37 of the PLRMP, I would recommend specific mention of RNA's under Standards and Guidelines B and C. Then there would be no doubt that limitations on leasing (either outright denial or no surface occupancy), referred to under General Direction on the same page, would apply to RNA's.

74 There is some confusion concerning the relationship of RNA's and transportation/utility corridors. On page S-13 of the DEIS, existing and proposed RNA's are identified as exclusion areas. This is inconsistent with a very similar write-up on DEIS page IV-57 where RNA's are identified as avoidance areas. I believe that the latter is correct, because it is stated on page G-8 of the PLRMP that there are no exclusion areas on the Forest. However, RNA's are not specifically listed as potential avoidance areas on page G-8. I would recommend specific mention of RNA's as avoidance areas at appropriate places in the Final Plan.

75 I note in the draft Travel Plan (PLRMP Appendix P) that existing and potential RNA's are closed to motorized travel. I support this policy, and recommend that it be considered as a blanket policy to be applied to future RNA candidates as well as to those mentioned specifically in this Plan.

76 A monitoring program which, at a minimum, periodically checks RNA's for intrusions or alterations should be incorporated into the Implementation section of the Final Plan.

I would also like to comment on some other specific treatments of RNA's within the DEIS and PLRMP. I will address topics roughly in the order in which they appear in the draft planning documents.

The DEIS states on page II-5 that the existing Partridge Mountain RNA is a special area with constant management direction in all alternatives examined in detail. This policy is displayed in tabular form on

73. If these items were mentioned on the pages of the Forest Direction, there would be no need for management area directions. To avoid unnecessary redundancy these types of direction are not included in the Forest Direction, but rather the direction that applies specifically to the Management Area.

74. Changes made.

75. Changes made to Prescription 10A cover this.

76. The areas should be monitored. However, unacceptable impacts should lead to corrective action, not further planning.

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77 DEIS page II-68, where all alternatives contain at least 1200 acres for Management Prescription 10A. However, the maps for Alternatives 2, 3 and 7 do not show Partridge Mountain as prescription 10A. For the sake of consistency, I suggest that this oversight be remedied on the maps which accompany the Final EIS.

78 Of eleven alternatives considered in the DEIS, only two provide for the designation of new RNA's on the Forest. I do not fully understand the rationale for this, but I would think that RNA candidacy could be included in most alternatives, because RNA designation has little effect on costs or other resource outputs. The DEIS even states on page IV-58 that environmental consequences would not be significantly different regardless of the prescription assigned to the two potential RNA sites (Bullion Canyon and Upper Fish Creek). At a minimum I am satisfied that RNA candidates appear in the preferred alternative, and strongly urge that they be carried forward into the Final Plan.

79 There is an apparent inconsistency in the DEIS regarding oil/gas access restrictions by alternative (pages IV-48-52). Under Alternative 11 (Preferred), a total access restriction of 17,194 acres is shown; in reading the footnote immediately beneath, I assume that this acreage comprises municipal watersheds and RNA's, because there is no Wilderness on the Forest. However, on page IV-52 it is stated that the Forest contains no lands with the total access restriction. Taken within its context, this statement implies that none of the considered alternatives contain total access restrictions -- hence the inconsistency with Alternative 11.

80 Within the appropriate discussion of irreversible and irretrievable commitments of resources (DEIS page IV-59), it may be appropriate to add the following to the Final EIS:

"Designation of Research Natural Areas is reversible. However, alteration of a natural area by human activity is not reversible for scientific purposes. Once natural ecosystems are unnaturally altered, their value as a scientific baseline is diminished or destroyed."

81 Brief descriptions of the existing and proposed RNA's appear twice in the draft planning documents (DEIS page III-58, PLRMP pages II-60, II-62). It is important to have such descriptions in the EIS and Plan, and I commend you for having included them. However, both references emphasize only the alpine values of Bullion Canyon and Upper Fish Creek. Each site contains much more than just alpine habitat, and I recommend that the final planning documents mention these additional features:

\* Other principal features of Bullion Canyon include exceptional stands of virgin, old-growth Engelmann spruce, plus younger stands of spruce-fir (SAF type 206, Kuchler PNV type 15). All are representative of the

77. This is a cartographic mistake. If the alternative maps are reprinted, they will be corrected.

78. It was necessary to have some alternatives with new Research Natural Areas (RNA's) and some without in order to test the effects.

79. The text of the EIS on page IV-52 and the tables on IV-51 and IV-53 have been modified to correct this problem.

80. Have added this material to part G of Chapter IV of the EIS.

81. These statements are correct. But in the interests of conciseness they should be put in backup documents. In this case the backup documents referred to on the pages you cite are the establishment reports. However, the descriptions have been expanded.

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subalpine fir/mountain gooseberry habitat type. Several subalpine herb and shrub/herb communities are present. Most of these are representative of fairly common "meadowy" communities at similar elevations in central and southern Utah. Bullion Canyon also contains populations of three plant species of special concern on the Fishlake Forest, plus one endemic plant species.

\* Other principal features of Upper Fish Creek include several montane or subalpine forest types of the Douglas-fir, white fir and subalpine fir series. Dissecting the area are several small, high-gradient streams, some of which originate from cold seeps. These riparian zones support plant species adapted to relatively acidic substrates, including Sphagnum moss and members of the Ericaceae (Heather family). Upper Fish Creek also contains populations of one plant species of special concern on the Forest, plus one endemic plant species. Geologic features are rhyolitic rock and high-mountain landforms, including at least one rock glacier.

82 Some have questioned the need for two relatively sizable RNAs in close proximity in the high Tushar Mountains, figuring that one should be sufficient. However, for being so close together these two areas are actually quite dissimilar. Designating both would result in remarkably little overlap or duplication of "cells" which would be filled. The following chart displays the major differences

82. The selected plan carries both as proposed Research Natural Areas. The establishment reports will determine which are made Research Natural Areas.

<u>Characteristic</u>	<u>Bullion Canyon</u>	<u>Upper Fish Creek</u>
Rock types	Andesite, quartz latite, and rhyodacite ashflow tuffs, lava flows and breccias (Bullion Canon Volcanics).	Crystal-poor rhyolite lava flows and tuffs (Mount Belknap Volcanics)
Special landforms	Cirque, mass movement (prehistoric landslides).	Rock glacier(s), ?-subterranean ice body.
Alpine communities	Areas with well-developed turf <u>Carex elynoides</u> , <u>Irisetum epicalum</u> , <u>Hirt-eisia scopulorum</u> , <u>Geum rossii</u> , <u>Polygonum bistortoides</u> , <u>Saxifraga rhomboides</u> , also rocky communities	Largely rocky and nearly barren, with scattered species. <u>Agilegia scopulorum</u> , <u>Silene acaulis</u> , <u>Polegonium viscosum</u> , <u>Cerastium peeringianum</u>

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<u>Characteristic</u>	<u>Bullion Canyon</u>	<u>Upper Fish Creek</u>
Forest communities	Subalpine fir/mountain gooseberry habitat type (only coniferous type present) containing virgin old-growth Engelmann spruce, some small stands of aspen.	Douglas-fir and white fir series, subalpine fir/Oregon grape habitat type at middle elevations; pure Engelmann spruce at higher elevations.
Subalpine herb and shrub/herb communities	"Meadow" communities representative of many similar situations in region (such as on Wasatch Plateau), with <u>Ribes montigenum</u> , <u>Delphinium barbeyi</u> , <u>Hertensia arizonica</u> , <u>Thalictrum fendleri</u> , <u>Brocus carinatus</u> , <u>Carex hoodii</u> .	Essentially none -- too steep and rocky.
Riparian communities	Smaller perennial streams lined with <u>Cardamine cordifolia</u> , <u>Saxifraga edon-toloma</u> .	Species characteristic of relatively acidic environments (such as Uinta quartzite or Idaho batholith): <u>Sphagnum</u> moss, <u>Ledum glandulosum</u> , several <u>Carex</u> species.
Threatened, sensitive or endemic species	Four plant species, two of which do not occur in Upper Fish Creek.	Two plant species, both of which also occur in Bullion Canyon, though they are more abundant in Upper Fish Creek.

\* \* \*

83 I believe that both Bullion Canyon and Upper Fish Creek are highly qualified for RNA status. They were not proposed as RNA s in order to gain a "backdoor" approach to Wilderness. Both have sufficient scientific potential to stand on their own as RNA s, and I recommend that both be carried forward as candidates into the Final EIS and Final Plan. In doing so, some changes or corrections of the draft planning materials will be necessary, as described in the following paragraphs.

Acreeage figures and boundaries for RNA s are in need of revision in several locations of the EIS and Plan. These corrections proceed

83. They are.

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84 mainly from a reduction in acreage of the Upper Fish Creek tract: The "Mount Belknap Cirque" should not be part of the Upper Fish Creek RNA, thus reducing its acreage from 2217 to 1720. Total acreage for these two candidate RNA's would then be 3100 (Bullion Canyon 1380 + Upper Fish Creek 1720)

85 The acreage and legal location for Bullion Canyon shown on DEIS page II-62 are correct. However, similar information given for Upper Fish Creek on the same page is not quite correct, and should be changed to read as follows.

(b) Upper Fish Creek. Approximately 1720 acres in portions of (protracted) sections 28, 29, 32, 33 and 34 of T27S R5W, and (protracted) sections 4 and 5 of T28S R5W, Salt Lake Meridian

86 Changes are needed on DEIS pages II-68 and B-115 (acres by management prescription and alternative) at least under alternatives 5 and 11 the total acreage for prescription 10A should be 4300 rather than 4797. The same reduction should be done on PLRMP page IV-50 for management area 10A. A similar change is indicated on DEIS page III-51 and PLRMP page II-50 (lands encumbered but not formally withdrawn from operations of the mining laws): areas being studied for RNA status would total 3100 acres instead of 3597 or 5000.

Removal of the Mount Belknap Cirque from possible RNA status should shift it into the adjacent management area 3B. Acreage figures for that management area would therefore need to be adjusted in appropriate places in the planning documents.

87 I believe that it is important for RNA boundaries to be shown correctly on the planning maps. Some maps accompanying the DEIS and PLRMP are not quite correct in this regard. I have included a map as Attachment 1 to this letter which shows the correct boundaries of Upper Fish Creek (without Mount Belknap Cirque) and Bullion Canyon. Planning maps in need of these boundary corrections are as follows:

- \* Maps for alternatives 5 and 11, accompanying the EIS.
- \* Management Area map
- \* Utilities and Transportation Management map (area in Bullion Canyon recommended for no surface occupancy)
- \* The Travel Plan map (Appendix F of PLRMP) -- it is quite important to have this map correct, especially for the Bullion Canyon boundary.

My last comment concerning change in the final documents is a recommendation that Research Natural Areas appear as an index item in both the Final EIS and Final Plan

84. On the basis of this and previous discussions the change has been made.

85. Thank you for your assistance. It is very helpful.

86. Changes made.

87. Changes made.

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Let me conclude my comments about Research Natural Areas with some general observations. First, I believe it is safe to say that designation of the recommended candidates as RNA s will have slight if any impact on forest resource outputs and local socioeconomic conditions. The Fishlake National Forest is in an excellent position to fill gaps in the Regional RNA system with minimal management conflict.

The Nature Conservancy will continue to cooperate in the process of formal RNA designation. I have already prepared a draft Establishment Report for the Bullion Canyon area, and plan to write one for Upper Fish Creek in the next few months.

The identification of candidate RNA s in Forest Plans should not be seen as the end of efforts to build a system of RNA s in the Intermountain Region. Gaps still remain in the system, some of which can likely be filled with additional carefully-selected areas on the Fishlake National Forest. The Conservancy will continue to work closely with the Fishlake Forest and the Intermountain RNA Committee on future RNA proposals. As further searching locates additional qualified candidates, we will be glad to work cooperatively toward their establishment.

#### Endangered, Threatened and Sensitive Species

My comments regarding species of concern are divided into two main subtopics: 1) adequacy of protection policies and strategies, as stated in the draft planning documents, and 2) specific composition of special species lists.

A brief synopsis of relevant policy statements that I found within the DEIS and PLRMP is as follows:

- \* A goal of the Forest Plan is to identify and improve habitat for sensitive, threatened and endangered species including participation in recovery efforts for both plants and animals (PLRMP page IV-4).
- \* Two Forest-wide management requirements (PLRMP page IV-19) are to:
  - Manage and provide habitat for recovery of endangered and threatened species, and
  - Disallow activities or practices that would negatively affect endangered, threatened or sensitive plant or animal species.
- \* Protection of threatened and endangered species habitat is a minimum management requirement as defined in NFMA Regulations (36 CFR 219.27) (DEIS page B-00)

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- \* Habitat or populations of endangered, threatened and sensitive species will be maintained or enhanced under all alternatives (DEIS pages II-31, II-68, and IV-12-13).
- \* All management practices on the Fishlake Forest will ensure that fish and wildlife habitats are managed to "maintain viable populations of all native and desired nonnative wildlife, fish and plant species in habitats distributed throughout their geographic range on NFS lands". (FSM 2670.22) (DEIS page III-39)

These statements appear to give adequate policy direction for protection of special species and their habitats. I see no reason to criticize these statements.

There are several strategies which can be used to carry out these stated policies. I would like to emphasize two relevant "proactive" measures at the Forest level which are called for in the Forest Service Manual (FSM 2670 45):

- \* Determine distribution, status, and trend of threatened, endangered, proposed, and sensitive species and their habitats on Forest lands.
- \* Develop quantifiable recovery objectives and develop strategies to effect recovery of threatened and endangered species. Develop quantifiable objectives for managing populations and/or habitat for sensitive species.

88 The DEIS and PLRHP appear to provide for these measures for some, but not all, of the endangered, threatened and sensitive species on the Forest. I would like to see the Final EIS and Plan consider and respond to these directives for all E, T and S species on the Forest.

89 It is also important to have mechanisms in place for monitoring the effectiveness of protective measures. The monitoring and evaluation program outlined in Chapter V of the PLRHP provides for threatened and endangered plant and animal species. I would also like to see this section contain provisions for monitoring and evaluation of sensitive species.

My second main subtopic in this section of the letter concerns the actual species to which protective measures apply. The Conservancy's Rocky Mountain Heritage Task Force has developed lists of plant and animal species of special concern in Utah. For the most part, such species occurring on or near the Fishlake have already been given similar recognition by the Forest. However, there are some discrepancies which I would like to call to your attention. I will also suggest a few changes in the lists of special species on the Fishlake Forest.

88. Both the Forest Plan and the Forest Service Manual give direction for managing National Forest land. Thus, a conscious effort has been made not to repeat manual items in the Forest Plan; if there is repetition it is only redundant. The directions you cite from the manual will have to be followed in implementing the Forest Plan.

89. Changes made.

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 October 28, 1985  
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The two animal species which we consider to be of greatest concern on the Fishlake are the Utah prairie dog (Cynomys parvidens) and the bald eagle (Haliaeetus leucocephalus). Because these two are federally listed as threatened and endangered, respectively, they will remain subject to protection on the Forest.

The DEIS and PLRMP identify fourteen plant species of concern on the Fishlake. I have reproduced this list below:

<u>Taxon</u>	<u>TNC* rank</u>	<u>Federal status</u>	<u>Current FNF status</u>
<u>Astragalus perianus</u>	G3S3	T	T
<u>Townsendia aprica</u>	G2S2	T	T
<u>Astragalus barnebyi</u>	--	c2	S
<u>Astragalus consobrinus</u>	--	3c	S
<u>Castilleja parvula</u>	--	3c	S
<u>Cymopterus coulteri</u>	G3S3	3c	S
<u>Draba sobolifera</u>	--	3c	S
<u>Epilobium nevadense</u>	G1S1	c2	S
<u>Eriogonum ostlundii</u>	--	3c	S
<u>Hayas caespitosus</u>	--	c2	S
<u>Penstemon parvus</u>	G2S2	3c	S
<u>Penstemon wardii</u>	G3S3	c2	S
<u>Sclerocactus pubispinus</u>	--	3c	S
<u>Senecio diaorophyllus</u> var. <u>intermedius</u>	--	c2	S

\* An explanation of the Conservancy's ranking system is included with this letter as Attachment 2

90. Townsendia aprica was just recently listed as threatened, and this change will need to be reflected in the Final EIS and Plan. Of the twelve sensitive plant species, our information shows that Astragalus barnebyi and Astragalus consobrinus may not need to be considered as sensitive on the Fishlake Forest. The other ten should retain their sensitive status. There are also three plant taxa not currently considered as sensitive which we propose as additions to the Fishlake's list:

90. The change for the Townsendia aprica listing has been done.

91. Listing these three species as sensitive must be done at the Regional Office level. We have forwarded your comments to them.

<u>Taxon</u>	<u>TNC rank</u>	<u>Federal status</u>	<u>Proposed FNF status</u>
<u>Hymenocys helenioides</u>	G3S3	c2	S
<u>Machaeranthera lingii</u>	G3S3	3c	S
<u>Silene petersonii</u> var. <u>petersonii</u>	G3S3T2	c2	S

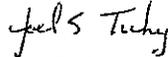
Mr J. Kent Taylor  
October 28, 1985  
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The Nature Conservancy is very concerned with the maintenance of rare plants and animals. My comments in the preceding paragraphs dealt with treatment of such species in the Forest Plan, along with recommendations for updating your list of species of concern. Beyond these written comments, however, the Conservancy is also willing to work actively with the Fishlake National Forest toward the goal of rare species conservation. Such cooperative work would include information-sharing and actual field assistance -- as you require and as our resources allow.

\* \* \*

In conclusion, thank you for considering my comments in the development of the Fishlake National Forest's Land and Resource Management Plan. I very much appreciate the interest and support that I have received throughout the Forest during my visits there. I look forward to continuing a good working relationship between The Nature Conservancy and the Fishlake National Forest.

Sincerely yours,



Joel S. Tuhy  
Utah Public Lands Coordinator

- Attachments
1. Map showing two RNA candidate boundaries.
  2. Explanation of TNC ranking system.
  3. Reconnaissance report and proposal for The Cove.

Note: The appendices to this letter are on file at the Supervisor's Office, Richfield, Utah.

October 29, 1985  
Venice, Utah

Fishlake National Forest

Gentlemen:

I am writing in regards to the Proposed Land and Resource Management Plan. The Lost Creek Boobie Hole Grazers' Association has reviewed the plan.

Option 8 seems to be the best option as far as we can tell, however, we have several concerns.

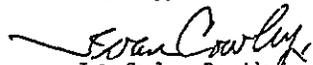
92 Whether some people believe it or not, this area of the state depends primarily on agriculture which is extensively livestock and livestock grazing. So with the small number of acres that are suited for cultivation and intensive irrigated pasturing, the B.L.M and National Forest land is needed to complete the necessary acreage to operate these small agricultural enterprises.

The fencing on most allotments is quite deteriorated and some springs and water systems need renovating. We feel if the full responsibility is placed on the permit holder that it will cause him undo expense which he may have a hard time handling in these critical financial times in agriculture.

We have concerns over closing too many roads. We feel there are enough, however, some need better maintenance than they receive. We don't feel that any more roads are necessary.

We know and realize there are many demands on the forest lands and each has its place. We are willing to cooperate and make things better for all as we have done in the past.

Sincerely,

  
Ivan Cowley, President  
Lost Creek Boobie Hole Grazers'  
Association

92. The Forest recognizes the need for grazing on National Forest System lands to make a viable operation for local ranchers. Fencing and water developments do need improvement. Where financing is available, these structures are being improved. However, it is the responsibility of the permittees to maintain improvements.

Richfield, Utah  
October 30, 1885

Mr. Kent Taylor, Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

Dear Mr. Taylor:

I would like the following comments considered by those individuals responsible for drafting and approval of the proposed travel management policy for the Fish Lake National Forest. First of all, let me commend the members of your staff who went out of their way to present the planning information to the members of the Sevier Sheriff's Jeep Posse. I realize they did not have to make such a presentation and the fact that they did speaks well of their dedication and commitment to the public welfare.

93 My specific remarks are directed to that area of Cove Mountain which is located adjacent to the property which I own on that mountain. As I read the proposed planning this area is restricted to off road travel for soil, vegetation and watershed protection. I agree with the proposal as it relates to travel by wheeled vehicles. However, I do not think the area should be closed to winter recreation vehicles such as snowmobiles. At least that area from Hunter's Flat south to the Koosharem Ranger Station location. This area generally experiences a heavy concentration of snow fall and provides some of the most enjoyable snowmobiling country it has been my privilege to enjoy.

94 The access roads are such that when the snow begins to melt and damage could occur to the vegetation or water shed, it is impossible to get to. Road closure to wheeled vehicles used to transport snowmobiles in the lower ranges where water shed, wildlife winter range and vegetation could be a problem would prevent the damage to the higher ranges. Therefore, if the closure were made seasonal, the area could be protected during the critical spring and fall periods, yet left to be enjoyed during the winter.

95 Since I have been an active member of the Sevier Sheriff's Jeep Posse for twenty years, and the Utah Civil Air Patrol for seven years, I would like to also recommend that a statement be incorporated into the planning philosophy that the restrictions to vehicle travel within the Fishlake National Forest are automatically waived when organized units of local, state and federal governments are responding to the protection or rescue of human life. We often find ourselves in situations which require judgement on the part of the responder without the benefit of asking a higher authority for approval. An individual responding to this

kind of need should not be held liable to travel restrictions intended for general public use.

Thank you for allowing me to respond to your planning needs. I appreciate the opportunity.

Respectfully yours,

  
James Niel Porter

NJP/nj

93. The area from Hunter's Flat to Koosharem Guard Station will be open to snowmobile use.

94. Some roads at the lower elevations will be closed seasonally to prevent resource damage.

95. Travel restrictions in closed areas can be waived under certain circumstances by the Forest Supervisor. In cases of organized search and rescue operations where loss of human life is possible, the closure is waived in the Travel Management Plan.

October 30, 1985

Mr. J. Kent Taylor  
Forest Supervisor  
Fish Lake National Forest  
115 East 900 North  
Richfield, Utah 84701

Dear Mr. Taylor:

The Mountain Men Of The Wasatch wish to take the opportunity to review and comment on the long range planning for the Fish Lake National Forest.

This club, formed in 1969, has grown to include over 1,000 members and associates, including some from the Richfield Human Resources unit. It is our goal to preserve for ours and future generations, the skills, craftsmanship and life styles of our forefathers prior to the twenty first century. Another of our goals is to keep some of our public lands in the pristine state that they were in, long before the advent of the twenty first century, including the abundance of wildlife that first lured our forefathers here.

We feel that the forest plan has the best opportunities for promoting our interests with alternative number 4. It would be ironic to sacrifice the very things that so many of the people in these human resource units live there for, in fact, one member expressed it very well when he said "why else would I live in such an economically depressed area, except for the hunting, fishing, recreation and beauty here. I would rather have this lifestyle than the extra money "

Alternative number 4 also seems to best protect the values of this forest. We feel some of the other alternatives devote too much emphasis to economical development at the expense of wildlife and undeveloped recreation. It is a proven fact as road densities, soil disturbances, vegetation disturbances, etc. increase, wildlife numbers will suffer due to the many negative impacts on their habitat and life styles. Over-hunting is contributed to with road density increases that some of the other alternatives would create.

Another area of concern with some of the other alternatives is the apparent over-allocations of available forage to livestock. We feel that allowable numbers of animals on this forest should be in direct proportion to the numbers of people who would benefit by their being there. There are many more people that would like to see wildlife numbers keep up with the demands of the public that use them, than those who would like to see livestock numbers kept at unproportionately high levels for the relatively few public that would benefit.

We need clarification on the statement on page IV-16 of the EIS that says: "There will be a 10% funding of livestock vegetation rehabilitation projects with wildlife funds, when available, and when such projects are located within big game winter range. There will also be a 10% reservation for wildlife of the increased forage in projects done within big game winter range." Does this 10% reservation for wildlife allow 10% to be 10% of AUMs or 10% of the numbers of animals? Other forest personnel have told us that approximately 2.5 elk equal 1 cow in AUMs consumed.

96. This is 10 percent of the AUM's.

Mr. J. Kent Taylor  
October 30, 1985  
Page 2

- 97 Also we would question why any wildlife funds should go to livestock vegetation rehabilitation. It is our belief that our state game managers would increase thier management objectives if more range were available to elk.
- 98 We would like to recommend that moose be given prime considerations, and efforts, for transplants and distribution throughout the forest and that, as a means to create more habitat that would be beneficial to moose, trout, ducks, geese, elk, deer, etc., that riparian zones be adaquately developed and protected.
- 99 We feel that beaver are also a beneficial form of wildlife that should recieve more attention, and protection where possible, without adversely affecting other species. Beaver create unique habitat that is especially favorable to brook trout and native cutthroat trout. these ponds provide a needed opportunity for fishing on this forest.
- 100 We would like to see greater numbers of bear on this forest This state has a great natural propensity for growing record size black bear, but for some reason this species is not being allowed to have much of a population.
- 101 As a closing recommendation we will recommend that a feasibility study be done to study the feasibility of providing suitable habitats for re-introductions of buffalo, Rocky Mountain Bighorn Sheep, wolf and, possibly, the introduction of Rocky Mountain Goats.

Thank you for allowing interested groups such as ours the opportunity to participate in this planning process and to hopefully be able to help your office prepare a plan that will be of the most benefit for the most people over the planning period.

Sincerely,



Randy T. Nielsen

For:

MOUNTAIN MEN OF THE WASATCH  
James E. Salmon, President

97. In reality no wildlife funds are going to livestock projects. No single use projects occur . The vegetation manipulation projects in big game winter range benefits wildlife as well as livestock.
98. The Plan will bring about changes in riparian area management which will be beneficial to the species you mention. Moose will be given prime consideration in the transplant program advanced by the Utah Division of Wildlife Resources.
99. The Fishlake National Forest considers beaver to be an important and desirable part of the Forest ecosystem.
100. The black bear is managed primarily by the Utah State agencies. This Forest provides ample habitat, and the number of black bears over the last 10 years is believed to be on an upward trend.
- The Forest is working toward developing a wildlife species transplant policy. Bighorn sheep and moose have been identified by the Utah Division of Wildlife Resources, as species they would like to see transplanted onto this Forest. Rocky Mountain goats have already been authorized for a transplant to a portion of the Tushar Mountains and are scheduled for introduction in the Summer of 1986. Wolf and bison habitat parameters have changed so drastically since these animals were extirpated from the Forest that they will not likely be considered as candidates for transplants during this planning period.



**Amoco Production Company**

Denver Region  
1870 Broadway  
P O Box 800  
Denver Colorado 80201  
303 830-4040

Roberta Andersen  
Public Lands Coordinator

October 30, 1985

Mr. Andrew Godfrey  
Forest Planner  
Fishlake National Forest  
115 East 900 North  
Richfield, UT 84701

Dear Mr. Godfrey:

Amoco Production Company is a subsidiary of Amoco Corporation. Its Denver Region is responsible for finding and producing oil and gas in the Western United States. We have a continuing interest in federal land use planning, and appreciate the opportunity to comment on the Draft Land and Resource Management Plan for the Fishlake National Forest

We appreciate the job the planning team did in writing the documentation for the Fishlake. Both the Draft LEMP and EIS show you went to considerable lengths to prepare a fair and reasonable multiple-use plan which fully integrates energy and minerals. We appreciate the fact that the staff on the Fishlake is willing to work with energy companies in an effort to mitigate possible impacts rather than to arbitrarily prohibit exploration activities. We sense you understand there are relatively few cases where an agreement as to how operations should be conducted is impossible to reach. Amoco Production Company supports your Preferred Alternative 11 as being an equitable management decision.

102 We do have a concern which we hope you will address in the final plan, however. The information you have used in the minerals sections is not recent. Acreage under lease, for example, is 1981 information. Revenue figures are also 1981 vintage. We strongly suggest that the final documents reflect more recent figures since the forest plan is supposed to remain in place for 10 to 15 years. We don't believe it is appropriate to start with 5-year-old information.

102. The objective is to portray general lease information. Little change would occur if everything was updated to 1985 figures. Also, the leases cover a 10-year period as does the plan, although the same time frame is not involved.

Thank you for considering our comments.

Sincerely yours,

rob

77-1A

# The Richfield Reaper

Mark G. Fuellenbach  
Publisher

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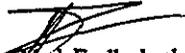
Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

Dear Kent:

103

The forest travel plan is well thoughtout and should be adopted with a few changes. The restricted areas on high top and seven mile area should be open to snowmobiling. This is vital to the tourist business in the area. Some of the winter range areas should be open on a seasonal bases.

If I can be of any assistance please call me.

  
Mark Fuellenbach

103.

Under the proposed plan, the Fishlake High Top would be closed to all motorized vehicles, but the Sevenmile area would be open to snowmobiling. It is felt that some areas of the National Forest should remain closed to all motorized equipment. The High Top was one of the selected areas since it was the only area of the Forest which was recommended for wilderness designation. That is, all the attributes for semi-primitive recreation are present. Also, critical areas of big game winter range are closed to snowmobile use. Even though big game animals may not frequent these areas for the entire winter, it would be impossible to determine when snowmobiles would not be detrimental to wildlife. For this reason, the areas are closed to snowmobile use throughout the winter months. The areas are open to off road vehicles, except during specified winter periods.



SOHIO PETROLEUM COMPANY

TWO LINCOLN CENTRE 5420 LBJ FREEWAY  
SUITE #1900/LB 03  
DALLAS, TEXAS 75240  
214-387 5000

EXPLORATION & PRODUCTION  
MID-CONTINENT DIVISION

October 31, 1985

J S. Tixier  
Intermountain Region  
Federal Office Building  
324 25th Street  
Ogden, Utah 84401

Dear Mr. Tixier:

We have reviewed the Fishlake Proposed Land and Resource Management Plan and Draft Environmental Impact Statement and our comments follow.

Sohio Petroleum Company (Sohio) supports Alternative 10 for management of the Fishlake National Forest. Sohio believes Alternative 10 provides the best opportunity for potential future hydrocarbon discoveries.

Alternative 10 has the least acreage under highly restricted access. It also has the greatest amount of medium energy potential acreage under low and moderate access restrictions.

Alternative 6 is our second choice due to less acreage under highly restricted access and more acreage under low and moderate access restrictions.

Sohio is opposed to Alternatives 7 and 4 due to large acreage blocks under highly restricted access

104 In summary, Sohio supports Alternative 10 and secondly, Alternative 6. We believe the Fishlake National Forest is doing a commendable job of managing the forest and coordinating the different entities who have interests in the forest Thank you for the opportunity to comment on this proposed plan.

Sincerely,

*Bruce I. Clardy*

Bruce I. Clardy  
Operations Manager

MS/BC·tlc  
1826F

104. Considering all of the multiple-use objectives, we considered Alternative 11 the preferred alternative.

VI-46

To: To the Supervisor; Fishlake National Forest

Date 10-30-85

The following are my comments concerning the Proposed Land & Resource Management Plan/Travel Management

I AM A LONG TIME RESIDENT OF UTAH, AND HAVE LIVED MOST OF MY LIFE CLOSE TO THE FISHLAKE NATIONAL FOREST; WHEN I WANT TO GO TO THE MOUNTAINS, IT IS JUST 10 MINUTES AWAY BY TRUCK, AND I'M TO MY VERY SPECIAL PLACE.

MY GREATEST CONCERN OVER THIS MANAGEMENT PLAN IS GOVERNMENT RESTRICTING ME, A TAXPAYER AND CITIZEN OF THIS GREAT COUNTRY, FROM HAVING ACCESS TO MY PUBLIC LANDS.

I HAVE READ THIS BRIEF ON YOUR PLAN, AND I DO NOT AGREE WITH IT, IN ALMOST EVERY PART, THERE ARE SOME COMMON SENSE THINGS THAT EVERYONE SHOULD BE AWARE OF, SUCH AS PROTECTING OUR ENVIRONMENT, NOT TRACKING ON MUDDY ROADS, NOT MAKING NEW ROADS, ETC. BUT THE MAIN POINT HERE IS, PLEASE DON'T TELL ME WHAT TO DO. WE HAVE LOST ABOUT ENOUGH OF OUR FREEDOMS.

OVER MY SHORT LIFE I HAVE WATCHED THE FOREST SERVICE GROW INTO A POWER HUNGRY MONSTER, NOT BY ELECTED POWER, BUT BY ASSUMING POWER.

THIS NEW PLAN IF IMPLEMENTED, WOULD REQUIRE MORE PEOPLE TO ENFORCE, NOT TO MENTION ADDITIONAL COST, AND FROM DISCUSSIONS WITH MY NEIGHBORS, NO ONE SEEMS TO WANT IT.

IN THESE HARD ECONOMIC TIMES, WHEN BALANCED BUDGET IS HEARD A LOT, I THINK THE FOREST SERVICE SHOULD SHRINK, NOT GROW INTO THE UNCONTROLLABLE MONSTER THAT IT IS BECOMING.

I SINCERELY HOPE AND PRAY YOU HAVE READ THIS ENTIRE LETTER. BECAUSE GOVERNMENT CONTROLS ARE STARTING TO STRANGLE THE PEOPLE.

12116 Patricia R. Peterson Address P.O. Box 127 RAINBOW, UTAH

84652



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION VIII  
 ONE DENVER PLACE — 899 18TH STREET — SUITE 1300  
 DENVER, COLORADO 80202-2413

OCT 30 1985

Ref: BPM-EA

J. Kent Taylor, Forest Supervisor  
 Fishlake National Forest  
 115 East 900 North  
 Richfield, Utah 84701

Re: Fishlake National Forest Proposed  
 Plan and Draft Environmental  
 Impact Statement (DEIS)

Dear Mr. Taylor:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Region VIII Office of the Environmental Protection Agency (EPA) has reviewed the referenced documents. The EPA appreciates the efforts invested in developing this long-range resource management program. We believe that it will provide a very positive influence on the achievement of environmental objectives which are shared by our respective agencies. We recognize the importance, as does the Forest Service, of the grazing, watershed, and flood control values of the Forest. With this in mind, we have identified several concerns related to existing resource problems where we encourage a stronger rehabilitation and/or management program. Our enclosed detailed comments cover a substantial range of concerns and recommendations regarding water quality, riparian and wetland areas, aquatic life, and watershed resources.

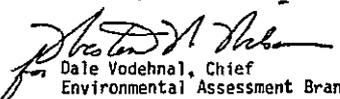
These Forest Service documents address important programs for water quality and watershed management. However, we believe that it is necessary to incorporate the EPA and State of Utah antidegradation requirements that apply to all surface waters in the Fishlake National Forest. Our comments reflect the importance of describing the implications of these requirements on Forest Service land management activities. We recommend that existing water quality trends and standards be described in more depth as baseline data for consistency with management activities. We have expressed several concerns regarding water quality-related best management practices (BMPs) and the assessment of water quality impacts.

We suggest revisions to the Monitoring and Evaluation Program regarding requirements for evaluating soil and water best management practice effectiveness, the water quality monitoring program, and for the implementation of aquatic life/habitat monitoring.

The Forest Plan and draft EIS represent a commendable level of public and inter-agency involvement. The Plan should describe this continuing coordination and consultation program in more detail generally, and specifically as it relates to water quality standards, the Clean Water Act Section 404 permit program, Plan amendment, and to the project-specific NEPA compliance process.

Based on our concerns and the criteria EPA has established to rate adequacy of draft EISs, we have rated this draft EIS as Category EC-2 (environmental concerns-insufficient information). The EPA review has identified additional corrective measures, data, analysis, and discussion that should be included in the Forest Plan and final EIS. If further EPA assistance is needed, please feel free to contact Doug Lofstedt of my staff at FTS 564-1717.

Sincerely,

  
 Dale Vodehnal, Chief  
 Environmental Assessment Branch

Enclosure

cc J. S. Tixier, Regional Forester  
 Dave Ketchum, Director of Environmental Coordination, Forest Service  
 Mike Reichert, Utah Bureau of Water Pollution Control  
 William Dickerson, A-104 (OFA)  
 Kerry Clough, ARA

87-11

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105.

106.

107.

Standards and Guidelines for Utah State anti-degradation requirements have been added to the Forest Direction.

No comment necessary.

Management of National Forest is guided by several different sources of direction. These include Laws and their implementing regulations, executive orders, manual direction, and Forest Plans. There is a new section of the Forest Service Manual being formulated that directs how we will work with the Corps of Engineers in administering the 404 permit program. The absence of repetition of manual material in the Forest Plan must not be construed in any way as meaning that the Forest gives lesser importance to it. In general, manual direction addresses items like the 404 permit program, that are common to many Forests. In contrast, the Forest Plan addresses items such as budget emphasis or management emphasis on the land, that are singular to that Forest. To avoid duplication they are divided into the two direction systems.

EPA Comments on the Fishlake National Forest  
Proposed Land and Resource Management Plan and Draft EIS

Water Resources and Watershed Management

The EPA appreciates the level of existing water quality which, from the discussion on DEIS page S-9, appears to be in almost all cases higher than needed to protect State-assigned designated uses. We feel that the EIS needs to be strengthened by documenting more specifically the designated uses, and existing quality data and trends, preferably in a table format. Such information would be important in providing consistency with alternative levels and locations of forest activities. We would also like to see cumulative water quality impacts addressed more specifically on DEIS pages IV-31, 45, etc.

We support the intentions of maintaining, and in some areas, improving water quality. However, we feel that the Plan and EIS should establish a clearer consistency, by alternative, with existing antidegradation requirements (refer to EPA's antidegradation policy at 40 CFR Part 131.12 and to the State of Utah antidegradation policy) that apply to streams in the Fishlake National Forest. There should be clarification of what these requirements mean in terms of existing quality and in terms of individual activities like logging, road construction, and mineral development. Will continued "minor degradation of water quality of some streams" (DEIS page IV-31) violate the antidegradation requirements? The State-Forest Service institutional arrangements: 1) for allowing any water quality degradation, and 2) for assuring that "all cost-effective and reasonable best management practices for nonpoint source control" are achieved (40 CFR Part 131.12(a)(2)), should be defined. Utah notes in its antidegradation policy that projects such as construction of roads "will be considered in antidegradation segments on a case-by-case basis where pollution will result only during actual construction activity . . .". The process for permitting "Short-term or temporary" violations of water quality standards should be addressed (Plan page IV-35). How are the Forest Service and State coordinated in this process (considering the antidegradation requirement)? Define the meaning of "Short-term or temporary". Are the existing beneficial uses to be maintained unimpaired? If not, what degree of impairment is to be allowed? EPA's antidegradation policy includes a provision requiring the maintenance and protection of "outstanding National resource" waters (Part 131.12(a)(3)). The Plan and EIS should address whether any of the Forest's streams are under this designation. The general direction on Plan page IV-35 also states that improvement actions are not necessary where "natural background water pollutants cause degradation". Why not?

We suggest that the standards and guidelines dealing with roads and timber harvesting identify the existence of and requirements for measures to adequately control water quality impacts. What additional requirements, or best management practices (BMP's) are needed? Will these requirements also

108. Additions have been made to the EIS (IV-31) to clarify existing water quality conditions. Cumulative impacts of management activities have not been specifically addressed. This would have to be done on a case-by-case basis if management activities were greatly increased in any given watershed. However, land disturbing activities associated with management are currently at a low level.
109. An anti-degradation policy has been added to the Forest Direction. This covers activities over the entire Forest. Any short-term impacts would be coordinated with the Utah Division of Environmental Health to review past years activities and plans for the current year.
- No waters on the Forest have been classified as "outstanding natural resources." This has now been stated in the EIS.
- The statement dealing with improvement actions on natural pollution remains. Action to deal with natural pollution would be implemented if effective and efficient.
110. Best management practices (BMP'S) are applied to all timber sales that involve roading. There is no need to repeat these practices in the Plan.
111. We have added this Direction to the Forest-wide Direction so it applies to all areas. Instead of formulating our own water quality standards, we believe it is better to refer to State standards so conflicts between the two will not arise in the future. Vegetative manipulation does include timber harvest and other things.
- Prior to any project, an interdisciplinary team will make a site specific examination. If they determine the project will not be able to meet standards and guidelines (including antidegradation) or that mitigation measures will not resolve the problem, the project will not be implemented.
112. If a large demand for aspen develops during the plan period, an amendment to the Plan and EIS would be completed to evaluate the increase in program.
- Clearcutting is limited to aspen stands where cutover patches will not exceed 40 acres. Generally, clearcuts in aspen stands have not exceeded 20 acres on this Forest. All proposed timber sale areas which could affect water quality are evaluated on a project by project basis. To attempt to include guidelines in the Forest Plan which would apply to all situations would not be possible. (It should be pointed out that the total Forest timber program for the decade will occupy only 2000 acres.)
113. A prescription with Standards and Guidelines already exists in the Plan for municipal watersheds. Currently no drinking water problems exist. In most cases, an intensification of multiple-use management provides needed protection of water quality without totally restricting all use within the watershed. This is possible because most water sources are enclosed.

111 apply to local roads that are built to lower standards, and for timber purchaser built roads? The Plan deals with the need to determine the water quality effects of road construction and "vegetation manipulation" as general direction for 9A management areas on page IV-147. We believe that the same general direction needs to apply to these projects in other management areas where water quality effects could occur. Additionally, water quality standards should be included in the standards and guidelines for determining the water quality effects under this particular general direction. We assume that "vegetation manipulation" includes timber harvesting. How negative would a project's impact be before it would not be approved (in context of the anti-degradation requirements)?

112 According to the Plan and DEIS, about 236,000 acres are available for aspen cutting, with some of it on potentially unstable soil (DEIS page S-8). Since aspen was "nearly excluded from the harvest projection" (DEIS page IV-33), we feel that the Plan should provide for an amendment with an appropriate NEPA action to address the effects of a larger harvesting program if a market becomes available. For the timber program in general, what are the equivalent clearcut area criteria needed for water resource protection? We feel that the environmental effects of the timber program, by alternative, should be addressed more directly (in addition to the extensive use of alternative output comparisons).

113 We suggest that the planned protection actions for municipal watersheds be identified more specifically. What drinking water problems need to be addressed?

114 We are pleased to see the Plan include prioritized lists of watershed and abandoned mine treatment projects (Appendix Q). What types of projects are these? Which have water quality components? In what years is treatment to be accomplished? We suggest that the Plan recognize any watersheds needing treatment that are listed in Utah's Section 305(b) report on State-wide water quality. We feel that the Forest needs to justify why it can not complete the watershed treatment backlog at least by the end of the 50 year planning period (DEIS page IV-41). What are the environmental implications, by alternative, of not achieving treatment of all 26,000 acres? According to Plan Table Q-3, 5,489 acres of watershed improvement are planned out of about 26,000 acres needing treatment. DEIS Table IV-20 (page IV-43) indicates 19,560 total acres to be treated. This apparent discrepancy should be clarified. The correlation of planned watershed improvement acreage versus needs should be made on DEIS Table II-23 (page II-90). We also believe that Table II-23 needs to recognize appropriate amounts of grazing and vegetation for watershed protection under the preferred alternative (page II-87). What comprehensive watershed management plans are needed?

114. Abandoned mine land projects include such things as closing more shafts and restoring vegetation on sites that have been abandoned. They do not include work on active claims when the current operator is required to complete work needed to protect water quality and meet other environmental concerns. Projects are listed in priority. Work will be accomplished according to the level of financing received. Currently, no problems exist for heavy metal contamination, but sediment reduction can be accomplished.

The watershed backlog identifies total acres needing treatment. Funds available for treatment are inadequate to meet the needs. The implication is that accelerated erosion levels will continue on watershed lands. That would hold true for all alternatives.

The apparent discrepancy in acres needing treatment comes about because the acres shown in the plan identify acres and funds only for projects to be accomplished in the next 10 years. The 26,000 acres represent all lands currently needing treatment. The 19,560 acre value shows how many acres could be treated in 50 years if full funding was received for Alternative 11.

Table II-23 compares alternatives in a relative manner. By comparing any alternative to Alternative 4, a feel for maximum treatment effect can be obtained. As far as grazing and watershed protection goes, the allotment management plans cover the concerns adequately. Here, interdisciplinary teams have a chance to identify issues and concerns, then a plan is developed to establish objectives, implement actions, develop proper use criteria and to evaluate actions through follow-up studies.

115. Some of the projects identified in the watershed restoration appendix are for closing abandoned roads. These closures are done for resource protection and water quality management. If roads are still required for management purposes, then maintenance is done for resource protection. Again, the problem is being unable to maintain all roads every year with the funds available. A statement has been added to the EIS to recognize this problem.

116. Management of National Forest is guided by several different sources of direction. These include Laws and their implementing regulations, executive orders, manual direction, and Forest Plans. There is a new section of the Forest Service Manual being formulated that directs how we will work with the Corps of Engineers in administering the 404 permit program. The absence of repetition of manual material in the Forest Plan must not be construed in any way as meaning that the Forest gives lesser importance to it. In general, manual direction addresses items like the 404 permit program, that are common to many Forests. In contrast, the Forest Plan addresses items such as budget emphasis or management emphasis on the land, that are singular to that Forest. To avoid duplication they are divided into the two direction systems.

We have problems with the preferred alternative's program for dealing with existing roads that are having adverse environmental effects. Apparently, road maintenance would be concentrated on "roads supporting the timber program while other roads will continue to deteriorate" (DEIS page IV-61). We feel that treatment of non-timber roads to prevent deterioration, particularly when water quality and riparian resources are involved, needs more recognition. We believe that the EIS (pages IV-86 and 87) needs more disclosure of the road management effects on water quality by alternative.

We believe that the Plan and EIS need to describe the formal coordination process for working with the Corps of Engineers (COE) and other relevant agencies in administering the Section 404 dredge and fill permit program. Important considerations to address include notification of projects to be done under nationwide, state, or regional 404 permit, identification of projects needing an individual permit, and development of mutually agreeable mitigation requirements for individual projects.

We have several concerns regarding the water-related monitoring program. We commend the Plan's emphasis on "concurrent monitoring to ensure that mitigation measures are effective and in compliance with state water quality standards" for 4A and 9A areas (pages 91 and 148). We feel that such monitoring may be important for activities done outside of 4A and 9A areas which could effect water quality. Secondly, we were unable to clearly correlate these requirements to the requirements (field review, quantities, frequency, etc.) for evaluating the effectiveness of installed soil and water BMP's in Plan Chapter V. We question the effectiveness of only \$2,000 annually to provide both short-term and baseline water quality monitoring (Plan page V-9). In 1981, over \$20,000 of Knutson-Vandenberg (K-V) funds were received (Plan page II-18). We suggest that the Plan discuss the planned use of K-V and any other potential funding sources to supplement the water quality and other environmental resource monitoring programs. Where are the baseline stations? How is water quality monitoring coordinated with the state and USGS? What parameters besides sediment, will be used to determine compliance with state water quality standards? What is the value of only an annual measurement frequency (Plan page V-9)? How will biological monitoring be integrated with chemical monitoring? How will antidegradation and cumulative impacts be handled? Will an ecoregion or reference stream approach to monitoring be used?

#### Livestock and Grazing Management

Livestock grazing appears to be a significant part of Forest operations. However, we had difficulty in adequately determining the existing condition of the Forest's rangeland and grazeable woodland. We encourage a more specific description of such conditions, with supporting mapping if available, in terms of multiple resource values or at least ecological condition. We feel that such information would provide a stronger basis for management direction.

117. A monitoring requirement has been added to evaluate best management practice effectiveness and compliance with objectives on land disturbing projects. In addition, funds for annual monitoring have been increased.

Currently, Knutson-Vandenberg (K-V) funds are very limited because of the small timber program. If the timber industry has renewed activity, it would be possible to obtain some needed funding.

Baseline monitoring stations have been located over different parts of the Forest. During the early 1980's, stream monitoring was done on key streams. After a base level was established, stations were moved to gain information in other areas. In 1985, 14 stations were established on streams near Fish Lake and in nearby sewage lagoons. Emphasis is being placed on recognition of nutrient enrichment from natural sources as well as from recreational facilities. Later on, baseline stations will be placed in areas where dispersed mining activities could possibly result in heavy metal enrichment in the streams.

Each year a coordination meeting is held with the State Division of Environmental Health. They receive a copy of the current monitoring plan, results from past monitoring and are informed on projects planned for the coming year.

Some of the key water quality parameters being followed in the Fish Lake monitoring include Kjeldahl nitrogen, nitrate, nitrite and phosphate. Also, several complete chemical analyses have been done as well as measuring temperature, pH and dissolved oxygen. Stream monitoring includes bacteriological and chemical analyses.

Annual frequency of monitoring does not necessarily mean only one sampling date is involved. In 1985, there were three sampling dates on Fish Lake. This provided a measure of change with season.

Some of the chemical parameters measured are correlated with the biological parameters. For example, streams high in bicarbonates may have higher populations of biological material than low bicarbonate streams. This concept is built into interpretive guidelines.

Anti-degradation evaluations will be based on changes over time at baseline sites. Cumulative impacts are based only on broad evaluations of the total activities occurring within a given watershed. A sediment model to track every activity over time has not been prepared because there is such a large source of error associated with sediment sampling. Also, it is extremely difficult to separate sediment coming from bank erosion or onsite erosion, and to separate natural sediment associated with a major climatic event from that induced by management activities.

At the present time, six different ecosystems are being considered on the Forest. These have different geologic and soil conditions. In addition, 11 climatic zones where significant differences occur in precipitation and evapotranspiration have been identified.

119 Alternative 4 would withdraw livestock from suitable range that is in "poor to very poor condition" (DEIS page II-41). We are concerned that Alternative 11 also recognize such existing poor conditions and prescribe effective improvements. The general direction to "Achieve or maintain fair or better range conditions on all rangelands used by livestock" (Plan page IV-23) presents some concerns. Apparently this direction conflicts with the statement on Plan page III-2 that "An upward trend will result from improved administration and range improvements." What values are used in making condition determinations? We recommend the consideration of management direction to improve, rather than just maintain, rangeland resources in "fair" condition. Furthermore, the effects of the proposed grazing management program in correcting past watershed problems related to overgrazing (as discussed on Plan page II-64) on 9F and other appropriate management areas should be described more clearly. As a case in point, the discussion of Alternative 11 on DEIS page II-87 should be more complete in describing adequate watershed/water resource protection and prevention of overgrazing. What effect will more intensive grazing management have on reducing flooding potential? The ecological impacts of alternative grazing programs (DEIS pages IV-29-31) should be more thoroughly disclosed. The alternative impacts and trade-offs of vegetation "spraying, crushing, plowing, and chaining" (Plan page IV-109) also need disclosure.

120 The Plan and DEIS address reductions needed in livestock grazing (such as on DEIS page II-87), yet DEIS page II-70 indicated an increase in animal unit months of grazing by over 51,000 in the first decade and even more in later years under the preferred alternative. The apparent discrepancy should be clarified.

#### Fisheries and Aquatic Life

121 The Plan proposes a "20 percent decrease" in fish numbers as an acceptable limit before corrective action is taken (Plan page V-6). In discussing this proposed limit with Forest staff, it apparently relates to natural population fluctuations, and not to permissible reductions as a result of Forest management activities. Consequently, we believe that revisions are needed to 1) assure consistent provisions for maintenance and improvement of fish populations from Forest management, and 2) to assure consistency with water quality antidegradation requirements. We also suggest biological justification for what appears to be a large natural population fluctuation. A concern with the aquatic life guidelines in general deals with the proposed standard and guideline to maintain vertebrate habitat by protecting "at least 40 percent of the ecosystems for existing species" (Plan page IV-18). The ability of such a requirement to adequately provide for fish, water quality requirements, and healthy aquatic populations should be addressed for appropriateness.

118. The information requested is provided in current allotment management plans and supporting documents used in the preparation of these plans.

119. There is no conflict in the statements that are being referred to. You can have an upward trend and achieve better range conditions. If desirable conditions already exist, maintenance of those conditions does not create a problem.

Trend is followed using nested frequency evaluations on a five-year interval. This is outlined in the monitoring section of the plan. Improved administration is obtained by enforcing conditions outlined in grazing permits.

The statements on restoring depleted watershed areas have been clarified in the EIS. (See also Range & Soil and water goals on pages IV-4 & 5 and General Direction P IV-35 in the Plan)

Unfortunately, many of the flooding events that have occurred in recent years would have caused severe damages no matter what kind of management was being followed.

Impacts associated with specific projects dealing with spraying, chaining, plowing, etc., are covered in environmental analyses for allotment management plans, and for individual projects where needed. Here, specific units of land can be identified and specific impacts addressed

120. A typing error was made on page II-70 in the EIS. This has been corrected.

121. Acceptable limits for fish numbers have been changed to allow interagency coordination to determine acceptable fish populations. Since the state is the lead agency in population management, acceptable limits will be determined in coordination with the Utah Division of Wildlife Resources.

The proposed Standard and Guideline to maintain vertebrate habitat by protecting at least 40% of the ecosystems for existing species is designed primarily for terrestrial wildlife. Item 4 under General Direction (LMP page IV-18) includes more specific guidelines for fish habitat management. All waters capable of supporting self-sustaining trout populations will be maintained at or above 40% of optimum. More specific guidelines for streams in Management Areas 4A or 9A can be found under Prescription 4A and 9A of the LMP

122 The Plan and DEIS discuss fisheries and aquatic life goals in terms of "minimum viable population numbers" (DEIS page III-40). Our concern is that protection of healthy populations be recognized. We suggest that the documents assure consistency with antidegradation requirements, and that a "viable" population is in fact a healthy population.

123 We commend the use of Management Prescription 4A for several stream zones in order to emphasize fish habitat improvement. These areas are designated primarily on the western part of the Forest. The Plan map indicates several perennial streams in the south central and eastern part of the Forest, yet it is unclear why almost no water bodies there are designated 4A. Is the aquatic life/habitat all in good condition? We recommend Plan map revisions to include any additional stream zones needing the 4A prescription. Since about 365 of the Forest's 380 miles of streams have either poor or fair habitat condition (DEIS page S-7), how much of the stream mileage is identified for improvement under the 4A prescription?

124 The lack of streamside vegetation is part of the reason for the extensive poor and fair stream habitat condition (DEIS page III-32). Consequently, we question the standard and guideline requiring maintenance, as a minimum, of only 40 percent of the overhanging vegetation (Plan page IV-19). Likewise, we question the requirement for maintenance, as a minimum, of 50 percent of "total streambank length in stable condition where natural conditions allow" (Plan page IV-19). How much of an improvement are the above standards and guidelines to the existing conditions? The ability and adequacy of these standards and guidelines for "maintaining shade and bank stability for streams" (Plan page IV-84) in 4A and other management areas needs to be addressed. The proposed standard and guideline to "Maintain or improve overall stream habitat condition at or above 50 percent of optimal" for streams in 9A areas (Plan page IV-144) is also a concern. It appears that such a requirement would allow degradation of existing higher conditions.

125 The Biotic Condition Index (BCI) will be used to quantify stream condition. What macroinvertebrates are to be management and water quality indicator species? The Forest Service Intermountain Region's October 1979 "Biotic Condition Index: Integrated Biological, Physical, and Chemical Stream Parameters for Management" publication indicates on page 14 that a 70-85 BCI rating requires a management strategy to improve habitat. Table III-21 (DEIS page III-40) indicates a BCI of 70 as a minimum for a viable population. We would like to see the Plan on page IV-18 and under direction for Management Area 4A specify the BCI level which will trigger improvement actions. Additionally, from the monitoring plan on Plan page V-6, it appears that even a reduction by 15 percent of the BCI rating to an unacceptable level would not trigger improvement actions. The Plan should be clearer in assuring that macroinvertebrate studies have been designed to measure desired environmental effects. What does "annual" measurement frequency mean for macroinvertebrate indicator species? The extensive amount of deteriorated stream condition appears to indicate a need for more than the "slight improvement" of macroinvertebrate habitat stated on DEIS page II-89 and an increase in BCI rather than the slight decrease projected on DEIS page IV-26.

122. The Forest Service is required by National Forest Management Act regulations (36 CFR 219.9) to maintain viable populations, "Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area." Estimates of minimum viable populations set the minimum threshold levels for planning purposes. They are not goals to achieve. The Forest is required to address minimum viable population levels in the plan and assure that, at a minimum, these levels will be met. It is estimated that the proposed preferred alternative will maintain populations at levels considerably higher than minimum viable.

In compliance with the state's anti-degradation policy, existing instream water uses and populations will be maintained and protected.

123. Several additional streams have been designated 4A Management Areas on the map. Approximately 164 miles of stream have been designated 4A Management Areas for this planning iteration. Due to the high cost of stream habitat improvement and extensive flood damage that has occurred on the Forest, only part of needed habitat improvement can be scheduled for the first decade.

124. Since the most recent surveys, current stream conditions have changed substantially as the result of extensive flood damage over the past several years. The best estimate of current conditions includes overhanging vegetation of less than 20% and bank stability of less than 20%. Only two streams of those surveyed have current conditions of 50% or higher of optimum. Most of the Forest's streams fall below this standard. The intent is to raise all currently degraded streams to a minimally acceptable level, not to allow the few higher rated streams to slip below their current condition.

125. The exact macroinvertebrate indicator species will vary by stream. In general, the following species will be used:

<u>Epeorus</u> sp.	mayfly
<u>Zapada</u> sp.	stonefly
<u>Ephemera</u> <u>doddsi</u>	mayfly
<u>Ephemera</u> <u>inermis</u>	mayfly
<u>Chironomidae</u>	dipteran

The standards or acceptable limits indicating no need for further planning action have been changed to read "BCI above 75" (see LMP page V-6). The reference to a BCI of 70 as a minimum for a viable population has been deleted (see DEIS page III-40) since the minimum viable population for macroinvertebrates has not been determined. New Forest Service guidelines on macroinvertebrate analysis (unpublished reports) now use a BCI of 75-90 to indicate that the biotic community is in good condition. Below 75 the community is considered in fair or poor condition. Therefore, we are using a BCI of 75 as a minimum standard for all fisheries streams. This standard has been added to the Forest Direction (LMP page IV-19).

Riparian Areas and Wetlands

We have several concerns regarding riparian area and wetland management. The preferred alternative would only slightly improve riparian habitat condition (DEIS page II-89). We feel that this contradicts the need for riparian area improvement noted in several areas of the documents. It appears that Alternative 4 more effectively addresses riparian area needs. The EIS should disclose the effects of the alternatives on riparian and wetland resources more thoroughly. Management areas 4A and 9A cover only 2,623 acres out of a total of 34,600 acres of riparian area (Plan page IV-50). We feel that much more of the riparian area should be included at least in the 9A area. How extensive will the riparian management monitoring program be?

We question the ability of the standards and guidelines for maintaining "riparian dependent resource values . . . in a stable or upward trend" (Plan pages IV-33 and 34) to adequately provide for improvement of degraded riparian resources. We feel that stronger improvement goals and requirements based on ecological condition and other resource values are needed. We suggest additional documentation of the effectiveness of intensive grazing management in 1) maintaining existing good riparian conditions, and 2) in providing an adequate improvement trend for areas in less than good condition. The planned amounts of riparian fencing should be clarified.

The Plan's general direction calls for aspen clearcutting in both 4A and 9A riparian areas (pages IV-89 and 146). The Plan and EIS should justify this practice as really being necessary. What are the impacts and multiple-resource trade-offs of such clearcutting? What alternatives exist? What is the allowable cutting intensity for other tree species in riparian areas?

Off-road vehicular travel would be prevented in riparian areas "when the ecosystems would be unacceptably damaged" (Plan page IV-141). What is unacceptable damage? Why is off-road vehicle travel needed in riparian areas at all?

Forest Plan Implementation and Coordination

We suggest that the discussion of categorical exclusions on Plan page V-2 undergo some revision. The term "categorical exclusion" should be defined. We recommend that the discussion be more consistent with the recent revisions to Forest Service NEPA implementation procedures (June 24, 1985) in which only certain types of potential categorical exclusions are specified.

The measurement frequency for macroinvertebrate species has been changed to read "5 streams/year." Each stream will be sampled two to four times per year depending upon the project being monitored and available funding. If more monitoring funds become available, additional streams will be sampled each year.

The BCI may decrease initially due to increased project activity including range and wildlife habitat improvements, watershed projects and timber sales. After the first few years the average BCI should increase with improved riparian and watershed conditions.

126. It is not possible to discuss the effects of each proposed project within each alternative on riparian and wetland resources because many of the projects have not yet been planned in detail. Each project will be subject to meeting the Forest Standards and Guidelines for riparian areas. The specific impacts will be mitigated as part of the project proposal and implementation plan.

Ten percent of all perennial streams will be surveyed on each District each year.

127. Additional guidelines for riparian area improvement will be provided in individual Allotment Management Plans. These plans include individual site specific environmental assessment, with interdisciplinary interaction.

During the first decade, 29 miles of stream fencing and 28 acres of spring and wetland fencing are proposed

128. If decadent aspen stands are to be regenerated, they must be clearcut. Best Management Practices (BMP's) are followed in riparian areas for all timber activities, regardless of cutting system used

129. Unacceptable damage is that which causes degradation of streams or lakes. Although off-road vehicle use is not "needed" in most riparian areas, there is no need to restrict this use where damage is not occurring. Also, posting and enforcement of an off-road vehicle closure in all riparian areas would be a monumental and expensive task

130. A definition of categorical exclusion has been added by referencing section 1952.2 of the Forest Service Manual. This is consistent with the latest (June 24, 1985) revision of the Forest Service NEPA implementing procedures which are FSM 1950. In that chapter, Section 1952.2 states in part "Typically, classes and representative examples of actions that might be categorically excluded are listed below." This is to keep the decision making as close to the ground as possible

- 131 We suggest a more specific discussion of NEPA compliance activities associated with Plan revision and amendment (Plan page V-14). What NEPA compliance documents will be required for a significant amendment? At what points will the public and other agencies be able to have input? What are the "NEPA procedures" and NEPA outputs associated with insignificant Plan amendments?
- 132 We feel that the Plan should describe the requirements for periodic evaluations of Plan implementation from a multi-discipline, multiple resource perspective.
- 133 We recommend that the EIS (page IV-82) recognize coordination with the Utah Bureau of Water Pollution Control and the local areawide water quality management agency.

131. Agreed that this process needs to be spelled out in detail. Currently, the Washington level of the Forest Service is preparing manual direction to provide guidance in this area. The Forest will comply with the new direction when it is received.
132. Agreed. This requirement has been added to the monitoring section.
133. Agreed. The description of this coordination has been added.

October 31, 1985

Mr. J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 E. 900 N.  
Richfield, UT 84701

Dear Kent:

Your people were kind enough to come to our Sheriff's Possee meeting the other night and present to us your forest plan.

The main topic was closing roads in several areas of the forest.

I would like to share with you are feelings as a Possee or Search and Rescue unit.

134 As a whole we are very much in favor of more secondary road closures and would like to suggest a few ideas:

Close your roads with gates and make a key available to our Possee in case of a search or rescue type situation.

Enforce your road closures. In the past, your attempts at enforcing these road closures has been half-hearted at best.

Restrict and enforce off-road vehicle use.

Do not close roads in winter to snowmobile use.

Thank you again for your concern about our feelings in the matter.

Thank you,

*Paul Niemayer*

Paul Niemayer  
Commander, Sevier Sheriffs Possee  
Richfield, UT

134. Generally, locked gates will be used for temporary road closures needed for resource protection during wet periods. In cases of organized search and rescue operations, where loss of human life is possible, the closure is waived in the Travel Management Plan.

Once Forest Plan closures are implemented, enforcement will be vigorous.

The only areas where snowmobiles are prohibited are those coded 3A, 3B and 5A on the Management Area Map which accompanies the Forest Plan. The 3A and 3B areas are set aside for non-motorized recreation while the 5A areas are critical wildlife winter range.

October 31, 1985

Mr. J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 E. 900 N.  
Richfield, UT 84701  
Dear Mr. Taylor:

We are writing this letter in response to your proposed forest plan. As you would expect as a group organized for the conservation and utilization of wildlife and habitat, this forest plan is of great importance to us.

As we have gone over this proposed plan we have a few general comments that we would like you to consider when you make your final plan.

Most of our body is interested in more quality hunting in our big game herds. We define "quality" as having a better buck doe ratio with a larger herd percentage of mature bucks. We realize it is impossible to have a mature buck for every hunter with the increased number of different hunts and the number of hunters afield. We do feel the percentage of bucks to does in our present herds is something to be alarmed at, and need your most immediate attention. Some of our ideas to help correct this are:

1. Seasonal road closure on secondary forest roads.
2. Restrict and enforce off-road vehicle use.
3. Support the one license, one hunt concept.
4. Set aside on a rotating basis certain areas for the taking of trophy bucks or limit the number of hunters in these areas.
5. Work in cooperation with other various agencies to improve the winter habitat for our deer and elk herds in high degradation areas.

As we go over your proposed plan it seems that range and timber account for less than 10% of what you project for you annual benefits,

135. Seasonal closures will be made on some roads each year. Most seasonal closures will be for the purpose of resource protection when roads are wet. However, some 177,000 acres of the Forest will be totally closed to motor vehicle use (except snowmobiles), while vehicles will be restricted to designated routes on an additional 364,000 acres of the Forest. Once these changes are implemented, enforcement will be vigorous.

Recommendations relating to the hunt should be directed to the Utah Board of Big Game Control.

Some winter habitat improvement is called for in the Forest Plan.

Range and timber outputs remain essentially at present levels while project activity to enhance fisheries and big game winter range increase substantially. Also, funding to manage dispersed recreation and trails is also substantially increased.

It is our understanding that state laws relating to off-road vehicles are presently being revised. Also, under the Plan, off-road vehicle use would be prohibited or restricted on the acres previously mentioned.

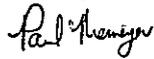
and that recreation and wildlife account for close to half. It appears to us that you have put too much emphasis on grazing and not enough for fisheries or wildlife. It looks like you have emphasized grazing on about 650,000 acres but have emphasized only 628,000 acres for wildlife, fisheries, recreation, and wood cutting.

Because of the cost of rebuilding forest roads damaged by late season hunters and wood cutters it is our belief that more seasonal road closures should exist from fall to late spring. We do not want to limit snow-mobile traffic on these roads in winter because we don't feel that it causes any erosion problems.

The laws on off-road vehicles on forest roads should be strengthened and enforced. They are a safety problem as well as an erosion problem and a detriment to most forms of wildlife.

Please contact me if you have any questions or suggestions.

Thank you,



Paul Niemeyer  
Big Game Chairman  
Sevier Wildlife Federation

Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

Oct 31, 1985

Dear Sir:

On Thursday, Oct. 24, 1985 I had occasion to listen to the presentation by your personnel at a meeting of the Senior Sheriffs posse meeting. The presentation concerned your newly proposed management of the Fishlake Forest by your Fishlake Forest National Forest Plan. I found the presentation interesting and informative, but I have several reservations. First I have some concern as to how the plan will adversely affect mineral prospecting and mineral claims. As might be expected, motorized equipment such as drills, compressors, jack hammers, etc. are necessary to conduct diligent searching and for assessment work. As I understand it, your plan will prohibit or at least make cumbersome such work. In particular, I have over 100 registered mineral claims along the west side of Gracer Valley, south of Greenwicks. According to your plan, this area is in a deer and Elk winter range area and this will not allow snowmobile and other motorized equipment in the area during the winter. Much of our explorative work is done on the south facing slopes which are barren of snow much of the winter. Access at that time is mostly by 4-wheeled jeep & snowmobile & snowshoes. As this is necessary to our work, I am wondering what provisions or alternatives can be arranged. Also, shortly, we expect to request the building of a road into a remote area to do some expensive drilling. Will this become a matter of legal action in the courts to gain access or can some other provisions be made? I hope to receive a reply.

Secondly, it was mentioned in the presentation that many roads would be "put to bed" and many would be locked off with chains and padlocks. Much of our Search and Rescue efforts in the posse are on Federal forests and such procedures make our efforts difficult, if not impossible. I know of at least one occasion where a road "put to bed" cost the life of a sheepherder who bled to death as we were packing him out by stretcher for over 1 1/2 miles on a road which possibly should have been serviceable. I ask that as little of "putting to bed" of serviceable roads be done as possible, and that the posse be issued several keys to use on padlocked roads. One such road was the one near Kooshanum Guard Station from Big Lake on a recent search for lost juveniles, we had to acquire a key to search an area very much accessible by foot.

Thank you for your consideration in the above points May I hear back from you soon?

Yours truly,  
Small Robinson  
P.O. Box 99  
Richfield, Utah 84701

136

136.

Locatable minerals activity is provided for on all but 12,367 acres on the Forest. Under Prescription 5A, covering big game winter ranges, the Standards and Guidelines provide for reasonable activities to administer mineral exploration and development.

137

137.

The activities you mention taking place during the winter on south facing slopes on deer winter ranges is very stressful to big game species which are spending the most stressful time of their year on those slopes. Disturbance and stress during this time could result in the death of big game animals.

138

138.

Most of the roads which will be "put to bed" are not on the Forest Transportation System nor do they receive maintenance. Because of this, watershed damage is occurring. The only alternatives are to put the roads to bed or add them to the system, and maintain them. Roads which are needed for resource management are repaired while other roads will be evaluated to determine whether unacceptable resource damage is occurring.

Keys to locked roads cannot be issued to individuals for obvious reasons. However, should an emergency arise, a responsible individual could acquire a key from a Forest Officer for search and rescue purposes. During wet periods, search and rescue work may be less costly using helicopters versus wheeled vehicles when the cost of road repairs is considered.



Alice I Frell  
Lanos Director

## Rocky Mountain Oil & Gas Association, Inc.

345 PETROLEUM BUILDING • DENVER COLORADO 80202  
303/534-8261

October 23, 1985

Mr. Andrew Godfrey  
Forest Planner  
Fishlake National Forest  
115 East 900 North  
Richfield, UT 84701

Dear Mr. Godfrey:

On behalf of the Rocky Mountain Oil and Gas Association (RMOGA), I am writing to comment on the Draft Land and Resource Management Plan (LRMP) and Draft Environmental Impact Statement (EIS) for the Fishlake National Forest. RMOGA is a trade association representing hundreds of members who account for more than 90 percent of the oil and gas exploration, production and transportation activities in the Rocky Mountain West. Because of this, our members have a vital interest in how the Forest Service manages its lands, particularly with respect to mineral resource activities.

The Forest Planning Team did an admirable job in preparing the Fishlake National Forest Draft LRMP and accompanying DEIS. Upon review of the planning documents, it is obvious that the Planning Team went to considerable lengths to prepare a fair and reasonable multiple-use plan which fully integrates energy and minerals. The Forest Service has made it clear that it is willing to work with energy companies in an effort to mitigate impacts rather than to arbitrarily prohibit these activities. There are relatively few cases where an agreement as to how operations should proceed is impossible to reach. We appreciate that the Forest Service realizes this point. The Preferred Alternative 11 is, in our opinion, an equitable management decision and RMOGA will support its adoption provided that several minor modifications are incorporated into the final planning documents.

The following comments represent the modifications we feel the Forest Service should make in the planning documents. These changes will provide a better overall treatment of energy resources in the LRMP.

09-1A

October 23, 1985

Mr. Andrew Godfrey  
Forest Planner  
Fishlake National Forest

Page 2

Page IV-47 of the DEIS discusses leaseable minerals and how the Forest Service has categorized geologic potential on the Forest. The "High" category is defined as areas where there is the "Presence of a number of geologic characteristics indicating the occurrence of oil and gas; areas containing discovery or field." Yet, in the following paragraph the Forest Service states that "the lack of discovery eliminates any of the Forest as having a high potential for oil and gas resources." The paragraph does not mention the second part of the criteria regarding geologic characteristics or favorability. We believe that a discussion regarding geologic favorability should be included in this section explaining what geologic characteristics exist and how they do not indicate a high potential on the Forest. The fact that there have been no discoveries does not necessarily indicate a lack of high potential. The fact that half the Forest is under lease would imply that industry believes the Forest does, in fact, have significant oil and gas potential.

We are concerned that the information the Forest Service used in its mineral sections is not relatively recent information. The Forest Service states that 1.2 million acres of the Forest was under lease as of 1981. The revenue figures are also dated 1981. It would seem that this information should have been updated sometime during the last 4 years before the draft was finalized. Since the plan is to remain in place for a period of 10 to 15 years, it doesn't make sense for the Forest Service to start out with information that is already 5 years old.

The Environmental Consequences chapter discusses each resource and the unavoidable impacts resulting from these resource uses to the land. However, there is minimal discussion as to how these resources impact one another except in the case of minerals. Numerous adverse impacts are associated with energy and mineral activities. Yet, it is interesting to note that there is no real quantification of these impacts or, more importantly, that extensive mitigation measures are implemented to minimize adverse effects. Most companies work very closely with the governing agencies to this end, agreeing that

139. A new sentence was added for clarification.

140. The objective is to portray general lease information. Little change would occur if everything was updated to 1985 figures. Also, the leases cover a 10-year period as does the plan, although the same time frame is not involved.

141. The Federal regulations, Standards and Guidelines in this plan, and stipulations given in Appendix H cover the direction we must follow. Mitigation is often done through the use of best management practices, some professional judgment is required to evaluate impacts.

October 23, 1985

Mr. Andrew Godfrey  
Forest Planner  
Fishlake National Forest

Page 3

unnecessary surface disturbance must be avoided. By law, energy companies are subject to rigorous restrictions and stipulations in order to avoid such an occurrence.

142        Moreover, there is no discussion as to how energy and minerals would be impacted as a result of the surface allocation decisions, except in Table IV-24. While this table displays how much acreage is subject to varying degrees of restrictions, none of the other resource sections mentions how mineral activities would be foregone due to the management decisions or goals for other resources.

In conclusion, we appreciate the opportunity to participate in the Fishlake National Forest planning process. As we stated earlier, the Preferred Alternative 11 appears to be a reasonable management alternative selection. Nevertheless, we believe the modifications we have previously outlined should be incorporated into the final plan. If you have any questions, we will be pleased to discuss our recommendations with you at your convenience.

Sincerely,



Alice I. Freil  
Public Lands Director

AIF:cw

142.        Most of the Forest is open for mineral exploration. Therefore, little impact in the minerals program is expected as a result of surface allocation decisions.



**Chevron U.S.A. Inc**  
700 South Colorado Blvd P O Box 599, Denver, CO 80201

October 31, 1985

M M (Lsa) Flesche  
Staff Analyst  
Legislative and Regulatory Affairs

Fishlake National Forest  
Draft LRMP/EIS

Mr. Andrew Godfrey, Forest Planner  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

Dear Mr. Godfrey:

Although we are not currently active on the Fishlake, we appreciate the opportunity to review and comment on your proposed forest plan.

You and your staff did a commendable job in the preparation of the draft plan, and your deliberate efforts to make sure that energy and minerals were fully integrated into the plan are apparent. However, since we are not currently active on the Fishlake, it is impossible to determine whether the proposed management plan will adversely affect projects we may undertake in the future. Therefore, we reserve the right to challenge future decisions should they adversely affect our operations.

Sincerely yours,

*M M Flesche*

KMF:ar



# THE WILDERNESS SOCIETY

CENTRAL ROCKIES REGION

30 October 1985

Mr. J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

Dear Mr. Taylor:

The Wilderness Society is a national conservation organization of 145,000 members which devotes all of its resources to the preservation and wise management of America's public lands. Founded in 1935, The Society has been in the forefront of major conservation battles for half a century. We are pleased to submit to you our comments on the Fishlake National Forest Draft Environmental Impact Statement (DEIS) and Proposed Forest Plan.

Timber Harvest. We are concerned, first, about the level of timber harvest proposed for the Fishlake National Forest. Given the fact that you currently offer 3.0 MMBF, but find a market for only 1.7 MMBF (in an average year), why does the preferred alternative propose to offer 8.3 MMBF after the first decade the plan is in effect? National timber demand has dropped precipitously in recent years. In 1984 the Forest Service failed to find a buyer for more than 50 percent of the timber offered for sale. In addition, lumber producers are turning back to the Forest Service and the Bureau of Land Management a great deal of unharvested timber due to low demand (an estimated 10 billion board feet across the country). Yet you contend that demand for timber on the Fishlake will increase slowly over the planning period. How can you justify this prediction? And why spend your time and resources during the planning process on a scenario which seems at the present time to be so unlikely? In the DEIS (p. IV-33) you state that "The aspen type is nearly excluded from the harvest projections shown in the alternatives because there is little market for it." Why,

143. The Forest Plan covers the first decade, where the annual program will be 3MMBF. The out decades were listed to show biological capability. The Forest would not offer this volume if no market existed. Because of the confusion caused by the out-decade display, the tables have been revised to exclude out-decades. A new Forest Plan and EIS will be prepared before such changes would occur. Under the proposed plan, the timber sale program will remain at current levels.

then, are the various softwood timber species included in harvest projections when you have shown no reason to expect that the demand will increase by fivefold in the near future and when little more than half of the timber you currently offer is being sold?

144 In addition, we find the environmental consequences of such a harvest are inadequately described. In many of the alternatives discussed in the DEIS you show an increase in the timber yield and a decrease in the water yield, but as you harvest timber the water yield will increase. In the Summary of the Draft EIS and Resource Management Plan (p. 27) you state that "Water yield may increase by 177 acre-feet per year without any significant impairment to water quality." Perhaps we could argue about the meaning of the word "significant," but given the fact that "The average stream rated on the Forest has a habitat condition rating of less than 50 percent of optimum based on poor pool quality, lack of streamside vegetation and high levels of silt" (p. II-32, Plan), the impacts of this increase in water yield should be evaluated. The fact that sediment is the major water pollutant on the forest and your intention to increase emphasis on riparian area management are also relevant here.

145 Another area of concern is the National Forest Management Act's requirement that forests be managed "without impairment to the productivity of the land." Although the DEIS makes a blanket assertion that long-term productivity of the land will be maintained or improved under all of the alternatives examined, it does not back up this assertion with a realistic look at the impacts that the proposed timber cutting and road building program would have on other natural resources (range, recreation, wildlife, and water) which contribute to the long-term productivity of the land.

146 Other deficiencies that need to be corrected are these: (1) the tables lack any indication of how much of each timber species will be cut, and (2) DEIS Table IV-14 does not indicate whether total acreage to be cut includes fuelwood.

147 The lumber selling prices (DEIS, p. B-50 and B-51) are unusually high--\$250 per thousand board feet. Comparable figures for the same species in Colorado forests are usually less than \$25 per thousand board feet. These high figures bias your entire economic analysis. Further biasing the economic analysis is the use of a horizontal demand curve (DEIS, B-49). This implies that demand is not affected by price--a completely insupportable proposition.

Roadless Areas. Fifty-two percent (735,320 acres) of the

144. We believe it is adequately described. Additionally, site specific environmental analyses will be conducted for each proposed sale.

145. We believe it is backed up. The impacts that timber harvest and road building would have on range, recreation, etc. are contained in those sections of chapter IV.

146. Most of the harvest, indicated in the tables, will be *Engelmann spruce* with lesser amounts of subalpine fir, Douglas fir and Ponderosa pine.

The total acreage listed in table IV-14 does not include fuelwood cutting areas.

147. The lumber selling prices shown in the DEIS are correct. These are the prices for finished lumber FOB the mill. Your quote of \$25 per MBF for the same species on National Forests in Colorado is more likely stumpage value, which would also apply to the Fishlake N.F. as we are in the same appraisal zone as the Colorado Forests.

While theoretically plausible, the development of "demand schedules", or curves, depicting the relationship between expected timber prices, by species, and quantities offered was beyond the scope of the Forest planning process. This was due primarily to the impracticality of estimating stumpage demand curves. As such, recent historic prices were assumed for future timber offerings, thus leading to horizontal demand curves being used with regard to "volumes offered" in the various Forest plan alternatives. The Washington Office of the USDA, Forest Service, documented this decision in a February 3, 1981, letter from the WO Director of Timber Management to all Regional Foresters.

Fishlake National Forest is now roadless. According to the Draft Plan, 720,000 acres "will remain available for consideration for wilderness during the next planning period." Considering that the Fishlake is the only national forest in Utah with no designated wilderness, this plan represents a clear--and very welcome--attempt to keep options open on this acreage for future wilderness consideration. We are concerned, however, that only 17,912 acres on the forest have been included in the 3B management designation, or "Non-Motorized Recreation without Development of Other Resources," which prohibits timbering and road building. Prescription 3A, which emphasizes semi-primitive, non-motorized recreation but allows road construction and timbering, is assigned to over 90,000 acres, including the 18,810-acre Fishlake High Tops area, which was the only area on the forest recommended for wilderness designation in RARE II. If, in fact, a large percentage of the current roadless area is to be left in its natural state during the next decade, why not include more acreage in the 3B management category, especially since you intend to limit timber harvest during this period to the current 3.0 MMBF?

148

There is little discussion of the impacts of the road building program proposed in alternative 11. Since road building has major impacts on wildlife habitat, water quality, soil productivity and recreational opportunities, a discussion of these impacts should be included in the DEIS.

149

Grazing. According to the DEIS (p. IV-29), "The historic high demand for the range resource on the Fishlake National Forest has kept utilization near maximum levels." Accordingly, you are proposing to decrease permitted livestock numbers by 4 percent in the second decade of the plan. Reviewers of the DEIS and Proposed Plan could more easily evaluate the efficacy of your program if a more complete description of the range condition was included in the draft (i.e., how many acres of grazing land are in poor or good condition, how many acres are severely overgrazed?). Also, there is little discussion of the impacts of the conversion of pinyon-juniper habitat to grasslands. What methods of conversion are being used on the forest and what are the impacts of conversion on water quality, soil productivity, and wildlife habitat? The DEIS also refers to noxious weed control, but does not list or describe the methods that will be used.

150

Another concern is your recommendation that range permittees be given more control over their allotments. This sounds very similar to the Cooperative Management Agreements

151

148. In our judgement this is the right amount of 3B.

149. The only road construction included in Alternative 11 is that associated with timber sales (6.2 miles per year). Most of these are minimum standard roads which will be closed following harvest. It is not anticipated that the 12 to 13 acres of National Forest land used for road construction will amount to a serious impact on other Forest resources.

150. Actions have been taken and will continue to be taken on adjusting livestock numbers where range conditions dictate such action is necessary. Rather than trying to place condition ratings on all lands, we are looking at ecological status and resource value ratings. Condition is a relative term and must be related to the use being made of the land. For example, good condition for livestock use (grass stands) may not be good condition for tree-nesting wildlife. Also, condition is addressed in all allotment management plans

As far as impacts associated with conversion of pinyon-juniper habitat to grasslands, there are positive values for improving habitat diversity for wildlife in the pinyon-juniper zone. Forage production is greatly enhanced and runoff and sedimentation can be reduced in many instances. It must also be recognized that some negative aspects could be identified in terms of habitat for non-game wildlife. As with other activities and projects called for in the Plan, site specific environmental analyses will be done prior to project initiation.

Clarification has been provided in noxious weed control methods. An Environmental Impact Statement is currently being prepared by our Regional Office which addresses these issues. When this Regional EIS is completed, site specific environmental analyses will be done prior to project initiation.

151. The Forest Service is not adopting the approach used by the Bureau of Land Management in their Cooperative Management Agreements. Permittees are required to assist in maintenance of improvements, but are not given control of allotment management.

initiated by the Bureau of Land Management. The National Resources Defense Council has brought suit against the BLM over this issue, which has yet to be resolved. In the meantime the BLM has placed a voluntary moratorium on the program. Since, as the DEIS states, the range is already stressed, and you are in fact taking steps to improve range quality, we question the wisdom of relaxing--instead of tightening--supervision of range permittees.

Overall, we commend you for your attention to the improvement of range and water resources, protection of critical wildlife habitat, and extension of recreational opportunities on the forest. We thank you for your consideration of our comments on the Proposed Forest Plan and DEIS. Please let us know if we can assist you in any way as you prepare the Final EIS and Plan.

Sincerely yours,



Dianne Andrews  
Administrative Assistant



Darrell Knuffke  
Regional Director



STATE OF UTAH  
DEPARTMENT OF HEALTH

NORMAN H. BANGERTER, GOVERNOR

SUZANNE DANDY, M.D., M.P.H., EXECUTIVE DIRECTOR

October 30, 1985  
533-6146

J. Kent Taylor, Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

RE: Review of Proposed  
Forest Plan and EIS

Dear Mr. Taylor:

The State Bureau of Water Pollution Control appreciates the opportunity to review your proposed Land and Resource Management Plan and draft Environmental Impact Statement. We apologize for the lateness of our review and hope it arrives on time.

Members of our staffs met last April 9, 1985 to discuss water quality issues relative to forest plans, projects and water quality monitoring activities. You sent us your proposed monitoring plan on June 3, 1985 and we have yet to respond regarding our laboratory capability to perform the chemical analysis for you at our cost. Is the plan you sent us on June 3, 1985 the same monitoring plan referenced on page III-49 of the draft EIS? If not, please send us a copy of it. We hope to respond to your request within the next month. We look forward to meeting with you again at your convenience in the early spring (March or April 1986). Please advise us of the meeting as early as possible. Following are some rather general comments concerning the proposed Plan and EIS.

We strongly support the Forest's increased priority and allocation of resources toward improvement of riparian ecosystems. Improved riparian zones should help reduce sediment which was identified as probably the most common pollutant on the forest.

152 On page IV-41 of the EIS, we are uncertain exactly what specific measures are being taken or proposed to protect water quality in municipal watersheds. How are municipal watersheds defined and identified in the plan?

154 On p. II-47 of the proposed Plan you state that expected mineral development may increase the number of point sources. As you are aware stream segments located within the outer boundary of the Forest are designated as anti-degradation segments and as such new point source discharges of wastewater, treated or otherwise, are prohibited. (Note page 4 of the enclosure). Section 2.3.2 of the attached regulations also relates to the control of nonpoint sources within anti-degradation segments. It states that nonpoint sources shall be controlled to the extent feasible through implementation of best management practices or regulatory programs.

152. It is the plan referenced on page III-49 of the draft EIS, however, the plan is updated yearly. Updates will be sent to your Department. The annual meetings with the Department of Health help key in on significant water quality issues each year. Monitoring depends somewhat on the issues identified as well as the funding that is available in any given year.

153. A municipal watershed is one that serves a public drinking system. These are usually small watershed areas with one or more spring sources that have been enclosed in a collection system for use in a nearby community. These watersheds are identified on maps and locations are shown in the Forest Plan. In most cases, an intensification of multiple-use management provides needed protection of water quality without totally restricting all use within the watershed. This is possible because most water sources are enclosed.

154 The comment on point sources has been removed from the plan. All nonpoint sources of pollution cannot be totally controlled even with implementation of best management practices.

KENNETH L. ALKEMA, DIRECTOR • DIVISION OF ENVIRONMENTAL HEALTH

1800 STATE OFFICE BUILDING • P.O. BOX 45500 • SALT LAKE CITY, UTAH 84143-0500 • (801) 533-8181  
AN EQUAL OPPORTUNITY EMPLOYER

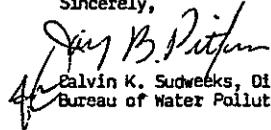
J. Kent Taylor  
Page Two

Even though the State Water Pollution Control Committee has not developed or adopted "Best Management Practices", the intent of the regulation is clear. Soil and water conservation measures, the terminology also used by the Wasatch-Cache Forest, or any other appropriate control measures must be used to prevent violation of state water quality standards and maintain downstream beneficial uses.

Projects such as construction of dams or roads in anti-degradation segments where pollution will result during construction activity will be considered by the Committee on a case by case basis. Best management practices or soil and water conservation measures must be employed to minimize pollution effects. During the development of environmental assessments or environmental impact statements  
155 cumulative impacts should also be addressed. In the proposed plan and EIS, we are unclear how you addressed cumulative impact and the maintenance of water quality standards and beneficial use designation for waters within and leaving the National Forest.

We commend you and your staff of the Fishlake National Forest in this monumental planning effort. We look forward to working with you through our memorandum of understanding and as closely as resources allow in the implementation of the plan.

Sincerely,

  
Calvin K. Sudweeks, Director  
Bureau of Water Pollution Control

cc: Dennis Dalley - RDCC  
Pete Stender - Intermountain Region Forest Service  
Doug Lofstedt - EPA

MKR/jm  
2722

155. Cumulative impacts of management activities have been addressed on a Forest-wide basis in Chapter IV. As the Plan is implemented, we will look at cumulative impacts at the project level.

To: Forest Supervisor; Fishlake National Forest

Date Oct 20, 1975

The following are my comments concerning the Proposed Land & Resource Management Plan/Travel Management:

I am not for this proposal, I feel like we need to use our energies towards the roads and trails that are already there, I feel we have enough government control on our lives without letting them intermen with this part of our living. Lets try and eliminate as much socialism as we can, nip it in the bud stages.

I am going to write my congressman about this issue. Thanks for your time on this matter. Lets curb the national debt, quit wasting our tax dollar.

VI-70

Samuel Peterson Forest # 030122 Redmond, Utah

L. Cordell Peterson  
994 North 1725 West  
St. George, UT 84770  
October 31, 1985

Mr. Jay Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, UT 84701

Dear Mr. Taylor:

Thank you for forwarding the Fishlake NF Proposed Land and Resource Management Plan (FLRMP) and DEIS and for the opportunity to comment on the intended Fishlake management direction.

Because of the complexity of the various management activities within and outside the Forest and the closed loop relationship between management actions and results, the extraordinary effort of the Interdisciplinary Team and other preparers in compiling these two comprehensive forest management documents is highly commendable. Each contributor should be extremely proud of his or her contribution.

In FLRMP review, the below concerns are forwarded for review and response:

- 156 a. Current Wildlife Habitat/Forage Condition: Neither the FLRMP or DEIS summarizes the current situation on Big Game range, especially winter range identified as critical or not. Range summarization is readily available for livestock which implies primary concern for livestock industry and secondary concern for competing wildlife. Does the Forest know actual condition of deer and elk summer/winter range. If so, current Big Game land condition, especially winter range condition, should be more comprehensively addressed in the Final LRMP/EIS.
- 157 b. Wildlife/Livestock Conflict: Since the Forest is already over obligated for livestock forage production (DEIS A-10) and wildlife population level for deer and elk is below UDMR population goals, Management Prescription 6B commitment to resolve livestock/wildlife conflict in favor of livestock should be reconsidered. NFMA regulations section 219.12(g) clearly states that habitat for LIS should be maintained and improved. Until this specific NFMA stipulation is achieved, all conflicts between livestock and wildlife should favor wildlife. Once attainment of UDMR population goals are achieved, then resolution of conflict could once again be resolved in favor of the most beneficial need which should include wildlife requirements.

Also in reviewing the Management Area Map, it appears far more forest acreage is allocated to livestock management than is made available to

156. Wildlife and wildlife habitat management agencies have not yet developed a condition index for big game winter ranges. As soon as they are developed they will be utilized.

157. The statement you object to in prescription 6B has been removed. Current status is not the determining factor in development of prescriptions. Whatever the prescription, overstocking problems are being resolved to bring animal numbers in line with carrying capacity. Wildlife are not being eliminated from lands with a 6B Prescription since all prescriptions provide for multiple-use management.

Section 219.12(g) of the planning regulations deals with "Estimating effects of alternatives." Section 219.19 deals with fish and wildlife. Nowhere does it require improvement of habitat for Management Indicator Species.

wildlife management. Because the interaction between wildlife and livestock on 6B lands is probably quite extensive the condition of dual purpose forage must be known. On lands in poor/very poor condition, steps must be taken to reduce livestock competition, not to stagnate or reduce wildlife population levels.

c. Current Big Game Population Level: Overall the Mils Deer population level on the Forest is only 61.5% of UDWR's population attainment goal. In responding to the BLM's Cedar/Beaver/Antimony Resource Management Plan (RMP), UDWR's goal was indicated as a "Prior/Long Term Stocking Level". If UDWR's deer population objective reflects a return to the previous stocking level (82,600 deer), the increasing (+) population trend (DEIS p. III-6) should be further expounded upon in the Final LRMP/EIS to indicate extent trend increase is occurring. Utilizing the "Monitoring Requirement" criteria (FLRMP p. V-6), an excess of 20% change in Mils Deer population level has already occurred. Was the Fishlake instituted additional planning action to guarantee an effective management policy is in fact in place to assure UDWR's objectives will be met. Past management practices, including over grazing, clearcut timber management, excessive road construction, browse deterioration, and backcountry ORV use, may have all significantly contributed to the declines of the Fishlake deer herds. Therefore management prescriptions such as 6B should be reconsidered to favor wildlife until a return to prior species population level is once again achieved.

d. Snowmobiles Use: For Management Prescriptions 4A and 4B, General Direction implies that snowmobile use will be allowed to continue off forest system roads and trails even if environmental negative impact is occurring. This is of special concern in areas that have not been designated as critical to wildlife needs. A substantial number of wildlife may utilize these areas and with continued snowmobile use harassment could result in detrimental impact on overall wildlife productivity. The "General Direction" criteria should be changed to include no snowmobile use wherever wildlife/snowmobile use results in needless wildlife harassment.

e. Minimum Viable Population: DEIS p. III-40 indicates that where population specificity is lacking a 40% population level based on the whole forest will be calculated. The Forest Service should not allow any activity to proceed unless the extent of a species population level is clearly understood. To assume a 40% minimum population factor based on unknown species distribution could and probably would result in drastic consequences especially when old growth dependent species or site specific species are involved. The 40% population prescription in calculating MVP should not be a viable management approach and should be deleted from Final LRMP/DEIS management consideration. This approach could have resulted in such adverse wildlife declines facing the Spotted Owl in the Pacific Northwest and Red-cockaded Woodpecker in the South. Maybe, the 40% MVP computation factor is leading to an unknown declines of non-game species on the Fishlake.

f. White-tailed Jack Rabbit: Since this species is declining, why wasn't it chosen for IS. Has there been a management plan implemented to reverse species downward trend? If not why? What is the apparent contributing factor to the decline (i.e. livestock overgrazing, habitat loss, hunting, cyclic).

g. Predator Control: DEIS p. 43 indicated that predator control was

158. The description of Prescription 6B has been modified toward a multiple-use concept. Projections show the Plan provides habitat for the number of big game animals that DWR has indicated are their objectives. The Plan is based on habitat availability and carrying capacity of limiting ranges. In actuality habitat is only one of the factors that determines the actual numbers of big game animals in any given herd unit. Hunting pressure, winter kills, etc. also contribute to determining the actual numbers. The monitoring plan has been modified.

159. The General Direction does not make any such implication. The Direction is intended to prevent soil erosion caused by ORV use. Snowmobiles operating on snow will not cause such erosion. The Forest's Travel Map shows areas of vehicle restriction and is updated annually. If specific areas are identified where snowmobile use is harassing wintering wildlife, the Travel Plan (Plan Appendix P) can be changed to relieve the problem.

160. The 40% you mention is for management areas. This does not allow for a 60% decrease of any given habitat Forest-wide. i.e. If there are 10 habitat areas of big sage Forest-wide, there cannot be 6 of them eliminated. Each of the 10 areas would have at least 40% of the existing habitat remaining after vegetation manipulation. In actuality the possibility of the 10 areas being manipulated during the 10 year planning period is remote. This Forest is committed to maintaining viability of all species found on the Forest, throughout their geographic range.

161. If the selected MIS are taken care of, the white-tailed jackrabbit will also be provided for. If it is an indicator of sagebrush, it would be considered as an MIS under the sage nester guild (group.) The decline in trend is an estimation, and the reason for decline is unknown. Wildlife species are often cyclic and the reason for population declines are often speculations. The Forest has requested that this animal be considered for inclusion on our Region Sensitive Species list. If this happens, more emphasis will be placed on finding answers to some of the unknowns.

162. At the present time any livestock losses due to predation are considered to be sufficient reason to justify predator control.

You are correct in pointing out that helicopter shooting and trapping are population reduction methods. This is also the intent of the paragraph you refer to. The paragraph goes on to indicate that when need is demonstrated, other methods are used control individual animals.

The plan does not contain a predator control schedule because this work is done by Animal Damage Control, Animal and Plant Health Inspection Service, USDA. They, not the Forest Service, are funded for this work. Also, like special uses, it is done on an as needed basis. A copy of the program, which is updated annually, is available at the Supervisor's Office or at any Fishlake Ranger Office if you would like to review it.

aimed at offending predators. What percent of livestock predation is required to trigger corrective action? How can helicopter shooting of coyotes be considered a management tool aimed at the offending predator? This is whole-sale predator reduction. The Final LAMP/EIS should provide a projected predator control schedule based on passed predator control measure experience. This schedule should include number of predators to be eradicated and method of predator removal. Predator control should be included under Management Prescription 6B or under Forest Direction. Inclusion under 6B is justified since overall predator impact on wildlife species is negligible as compared to other cause of loss (i.e. deer loss - Table 62, The Oak Creek Mule Deer Herd in Utah, UDWR Publication 77-15). Whereas, the livestock industry is the primary benefactor of predator control programs.

h. Northern Flying Squirrel: DEIS p. IV-13 indicates that a Northern Flying Squirrel decline could be expected in a limited number of small clearcuts in spruce and subalpine two-storied stands. What constitutes a small clearcut? Clearcuts as listed on "Ten Year Sale Schedule" (FLRMP pp. A-1-AD) range from 75 - 150 acres. How will these clearcuts in the Beaver District affect Northern Flying Squirrel populations?

Since this is a "Sensitive" species why wasn't it selected for MIS consideration. It appears since this species is highly susceptible to clearcut timber harvest methods, a study of Northern Flying Squirrel population level and direction should be clearly understood prior to clearcut authorization in its range. Is the decision not to list this species for MIS indicates a reluctance by the Forest to determine the exact status of this species because its' population level once determined may hamper projected timber sale objectives?

i. 10% Wildlife Funding for Livestock Rehabilitation: Why is 10% of wildlife funding (DEIS p. IV-16) being considered for livestock range rehabilitation? If this action is deemed necessary to reduce forage competition between Big Game species and livestock, it is an unreasonable approach to wildlife management. Utilizing wildlife funds to reduce forage competition is an additional indication of wildlife's secondary position in resolving conflict. It is a further testimonial to the inability of the Forest Service to resolve range problems by reducing livestock on degraded double use range. On critical wildlife winter habitat, Management Prescription 5a should mean under "Range Resource Management," to reduce livestock numbers and utilize funding to increase forage for wildlife not to accommodate livestock sustained or increased use.

j. Snag and Old Growth Habitat Management: DEIS p. IV-24 indicates that snag and old growth habitat management to maintain MVP levels for MIS will be directed towards unproductive sites. Does this mean the Fishlake is placing a seriously downgraded wildlife management criteria within production designated areas (i.e. timber sales, grazing allotments, mineral development)? MVP levels to be maintained primarily on non-productive areas is again a one-sided concession to development and may lead to development blind to environmental consequences or to the historical acceptance that any wildlife species is expendable at the expense of short-term private industry economic gain.

k. Bonneville Cutthroat Trout/Instream Flow: FLRMP p. II-25 indicates

163. The Standards and Guidelines in the Forest Plan specify the sizes of openings for the various timber cutting methods. Regional policy is that no clearcut will be over 40 acres. The 75 to 150 acres you cite refers to the total cut area in a sale which will be made up of several cutting units. The effects of these cuts on the Northern Flying Squirrel population will have to be considered on a site specific basis when the environmental analysis for the timber sale is done.

164. The list of "sensitive" species is long and varied. The Northern flying squirrel was not chosen as an MIS because it is not considered to be an issue on this Forest. Planned timber cuts which clear an area of all trees seldom exceed 10 acres. The built-in safeguards of the Standards & Guidelines section will not allow this squirrel species to be significantly affected.

165. This concept of 10% wildlife funding of livestock projects is only applied in deer winter ranges and then only as funds are available. The projects referred to automatically reserve 10% of the increased forage for big game regardless of funding. This may clarify and alleviate your concern for this utilization of wildlife funds.

166. The answer to your question is no. On the contrary, it means that under the proposal, old growth dependent species will not be significantly affected.

167. The estimated population of Bonneville cutthroat trout is 5,500 fish. While the State of Utah presently does not recognize instream flow needs as a beneficial use, the Forest intends to quantify and protect instream flow needs for all fisheries streams.

estimated population of 5,500. DEIS p. III-34 reflects 4,500. That is the correct estimated population. The PLRMP and DEIS clearly indicates Fishlake's intention to actively pursue instream flow requirements. Hopefully, this action is of the highest priority especially where necessary to preserve the Bonneville Cutthroat. Without instream flow protection, the State of Utah's fanatical development approach to water under beneficial use definition, which excludes fish habitat preservation, has the potential to reduce or eliminate free flowing forest streams.

168 1. Riparian Habitat/Dewatered Streams: Management Prescription 4A "General Direction" and Standards and Guidelines" do not appear to be stringent enough assurance for protection of fragile riparian areas. To allow continued livestock grazing on poor or very poor riparian habitat within or outside management prescription 4A zones or any other zone, is another concession to livestock overgrazing leaving little hope of resolving riparian habitat degraded condition. Abuse of riparian areas have not significantly diminished since Forest establishment. With 63% of stream habitat listed in poor condition and only 33% in fair, it appears that Forest management through cooperative management has been less than successful on most grazing allotments in the past 86 years.

A further indication of development concession is dewatered streams. In the PLRMP/EIS a historical list of dewatered streams, plus reason for dewater action, should be included. In addition anticipated dewater rate and where such action will occur. The extent of dewatered streams should be considered a significant factor in forest management but is not adequately address in the PLRMP/DEIS. The Final LRMP/EIS should address this subject and provide above information in table form.

169 m. Timber: Management Prescriptions 7A through 7D (PLRMP pp. IV-114 - IV-140) with major emphasis on timber production ignores wildlife in the implementation of a timber management program. Wildlife preservation should be of prime concern no matter the management prescription. Of special note is the lack of a "Snag Retention Policy" in timber management prescriptions under a "Wildlife and Fish Resource Management" heading. Nor does the timber management prescription indicate stipulations for riparian habitat protection. Wildlife and fish management should be included in the Final LRMP 7A through 7D management prescriptions.

170 In the DEIS Environmental Consequences (Chapter IV) section, the Forests current situation concerning reforestation backlog and consequences of a continued backlog is not analyzed. Management Area Map should reflect where reforestation is now taking place and where future reforestation efforts will occur. In addition a projection on how extensive the reforestation backlog can become given past history of reforestation efforts. The current reforestation backlog situation is one area the Forest Service seems to ignore in the forest planning process. Reforestation backlog is not adequately addressed in overall silvicultural direction under various management prescriptions. In the Final LRMP/EIS additional emphasis should be placed on reforestation backlog program, areas of current reforestation backlog and future reforestation requirements should be presented in a table similar to PLRMP Appendix A.

171 n. Roads: In the DEIS Chapter IV, the current road density of the Forest should be discussed in both miles, miles per acre and total forest acreage consumed by roads. This information should include all motorized

168. Studies in Idaho have indicated that even riparian systems in poor condition will recover over time if grazing pressure is reduced to light use (20-30%). Riparian recovery would, of course, be faster if grazing were totally eliminated. With over 700 miles of perennial streams on the Forest, elimination of livestock grazing through riparian fencing along all streams would be economically unfeasible. If the utilization standards proposed in the Forest Plan are met, riparian areas will improve over time.

The Forest has few sections of stream that are totally dewatered year round. Portions of the following streams may be totally dewatered for part of the year primarily during dry years:

Stream	Cause of dewatering
Beaver River	Hydropower
Fremont River	Irrigation
UM Creek	Irrigation
Lake Creek	Irrigation
Chalk Creek	Irrigation
Ivie Creek	Irrigation
Three Creeks	Irrigation
Box Creek	Irrigation
First Left Hand Fork	Hydropower
Skutumpah Creek	Irrigation
Manning Creek	Irrigation

It is impossible to predict where future proposals for dewatering may occur. Current applications for stream dewatering for hydropower include: Chalk Creek, Beaver River, and a tributary to Ivie Creek. An application for dewatering for irrigation purposes includes Little Pine Creek.

Approximately 3/4 mile of Chalk Creek is presently dewatered for part of the year for irrigation. The hydropower application would result in dewatering this same section for a longer period.

169. No prescription ignores the other uses of the Forest. All prescriptions are multiple-use in nature and, when combined with the Standards and Guidelines, no use is exempted from the NEPA process. The Forest also has a separate Snag Management Policy which gives additional protection to snag dependent species. (Forest Manual 2630, Fishlake Supplement #1)

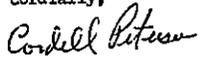
170. See EIS Section IV-33 first paragraph. The Forest has completed backlog reforestation. Future backlog cannot be anticipated, although little is expected to develop because of present silvicultural practices. Large clearcuts are no longer used in spruce stands on Fishlake National Forest.

ROS class and other use criteria (i.e., timber, mineral development). Road construction without current road density clearly understood will lead to deeper and deeper forest encroachment. This has the potential to drastically contribute to the Nation's ever diminishing wildlife population base. Additional road construction plus an ineffective road closure program could be a substantial barrier to the Fishlake commitment and stated objective of meeting UDWR wildlife population goals. The Forest Service fully realizes once roads are established closure is nearly impossible for a variety of reasons. LRMP Appendix J includes road construction/reconstruction schedule but does not include a road closure/rehabilitation schedule. A road closure schedule should be included in the Final LRMP/EIS to ensure the Fishlake fully recognizes the extent of this problem and has an active road closure program in-place or at least one designed. DEIS A-10 item 6 indicates superficial attention to road closures and does not address permanent road closures. Final LRMP/EIS should aggressively address permanent road closures.

- 172 o. Wilderness: Even though the Utah Wilderness Act of 1984 did not include congressional designated wilderness on the Fishlake, the issue of wilderness preservation is far from over. In formulation of Utah Wilderness Act recommendations, the Fishlake and local residents were strongly opposed to such designation. It is understandable the Forest could insist on the freedom to manage forest lands in such away to accommodate all interests without outside interference. For at least the next 10 years, the Fishlake has an opportunity to prove that wilderness has a place in multiple use management without being congressionally mandated. However, initial designation of only 1 area under Management Prescription 3B with associated entry drainages given less protection (Management Prescription 3A) has already diminished Fishlake commitment to wilderness. Management prescription 3B should not be utilized just for the high country environment but should include associated drainage system (i.e., South Fork North Creek, Beaver District). The Fishlake needs to review and include additional acreage under Management Prescription 3B in the Final LRMP/EIS. The lack of more than one Management Prescription 3B area also indicates a reluctance by the Fishlake to accept preservation as an essential element of multiple-use management or indicates that the Forest Service has little opportunity under existing mining laws to incorporate a true preservation philosophy within the scope of forest management goals. Therefore, leaving no other alternative but to seek wilderness preservation through congressional mandate. Out of approximately 22 areas evaluated in the RARE II process, why is only 1 area worthy of Management Prescription 3B criteria? Is the Fishlake so abused, there are no other deserving 3B sites. What about Beehive Peak, Circleville MT, and Wayne Wonderland?
- 173

Would you please place my name on the mailing list to receive a copy of the Final LRMP/EIS and subsequent action that may necessitate changes to the final.

Cordially,



L. Cordell Peterson

171. A discussion of road density in terms of miles per section - or whatever method is used - serves no useful purpose since densities will vary greatly with topography, terrain, soil types, and project activity. The thrust of the Forest Plan, for the first decade, is to improve the existing system of roads, not to add to it. Some new road construction will be accomplished in conjunction with the limited timber program. No other new road construction is planned.

UDWR wildlife population goals are already being met on Fishlake National Forest. Also, the new Fishlake N.F. Travel Map (Appendix P) delineates extensive areas which will be closed or restricted to motorized vehicle use. These closures will be vigorously enforced. Most of these areas are presently open to motorized use.

172. The Utah Wilderness Act of 1984 allocated areas not designated as wilderness to other uses, but required the wilderness issue to be reviewed in the next iteration of planning which will occur ten to fifteen years after the Plan is implemented. At that time there will be about 720,000 acres without developments that could be considered for possible recommendation to Congress.

173. Several areas could have been assigned a 3B Prescription. Our professional judgement was that this area be assigned Prescription 3B as part of the multiple-use management of the Forest.



NORMAN H BANGERTER  
GOVERNOR

STATE OF UTAH  
OFFICE OF THE GOVERNOR  
SALT LAKE CITY  
84114

Page Two  
Mr. Kent Taylor

understand the resource base of the State of Utah the closer we come to making wise decision as to use and sustenance of those natural values. The information contained in the Plan brings us all one step closer to better management. Your efforts are acknowledged and appreciated.

Sincerely,

  
Norman H Bangarter  
Governor

October 29, 1985

Mr. J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

NHB/ras  
Attachment

Dear Mr Taylor:

The State of Utah, through the Resource Development Coordinating Committee, has completed its review of the Draft Environmental Impact Statement and Proposed Forest Land and Resource Management Plan for the Fishlake National Forest. The State supports the Forest's preferred alternative with only relatively few changes suggested. These suggested recommendations are attached.

Areas of specific concern are those regarding budgeting and water rights. The preferred alternative is based on a 150% increase in funding over present. Given the current economic climate, the possibility exists that the Forest will not receive the proposed funding. The Plan indicates that any changes to the Plan due to a budget reduction, which seem likely, will not require public notification. The State request notification of any major plan amendments based on budget reductions. While a full environmental impact statement is not necessary, an environmental assessment may be an appropriate mechanism to convey such information to the State. In regards to water rights, the Forest is encouraged to work closely with the Division of Water Rights in adjudications of water rights needed for the national forest.

I hope that the State's comments will be useful in clarifying and strengthening the Plan that is a important planning tool for both the State and the Forest. The more we work together to

174. Significant amendments to the plan will be made following appropriate NEPA procedures and public involvement, including the State.

The Forest is currently working closely with the Division of Water Rights in Cedar City, Richfield, and Price.

VI-76

174

COMMENTS OF THE STATE OF UTAH ON THE

PROPOSED FISHLAKE LAND AND RESOURCE MANAGEMENT PLAN AND DEIS

GENERAL COMMENTS

175. ROS classifications are referred to continually throughout the document. It would help to explain each of these classes in more depth than what is offered in the glossary. For example, what exactly do ROS classes--primitive, semi-primitive non-motorized, semi-primitive motorized, roaded natural, rural, and urban mean. Although these classes may be very familiar to the experienced recreation professional, they may be unknown to many interested readers.
176. The Division of State Lands and Forestry found aspen management and land adjustments to be adequately addressed in the Plan.
176. "Off-highway vehicle" (OHV) is the preferred terminology instead of "off-road vehicle" (ORV). The term OHV seems to more accurately capture the essence of this activity. Most "four wheeling" occurs on some type of road, rather than as a cross-country event, and is generally on underdeveloped or primitive roadways. The State Division of Parks and Recreation has encouraged various agencies to adopt a standard term (OHV) in order to prevent confusion and inconsistency. We would recommend this terminology change be made in the Forest Plan on pages III-1, paragraph 6, and, IV-3, section 2, line 2 and in the EIS on pages I-9 paragraph 5; IV-5, paragraph 1; and, IV-5, Table IV-2.
177. A number of headings are not consistent throughout the Forest Plan and EIS. Examples include Forest Plan page II-25 (headings should remain in all capitals), and EIS page III-7 (subheadings should be lettered or underlined). This inconsistency can be confusing and hard to follow.
178. It would be helpful if all tables were completed on a single page, including footnotes. Some tables are shown on one page with some or all of the footnotes on the following page. Examples include Forest Plan pages II-16 and 17; EIS pages III-12 and 13, and III-17 and 18.
179. In the presentation on the Fishlake National Forest Plan at the Resource Development Coordinating Committee (RDCC) meeting of August 27, 1985, it was stated that non-motorized areas are open to resource development projects (timber sales, etc.), but are closed to public motorized use. Why is the public excluded from motorized use in these areas if motorized vehicles are used for resource development projects? What does closed to public motorized use mean?
175. The glossary is sufficient in its description of ROS classes. More detail on classes is available in the ROS Handbook.
176. The accepted Forest Service terminology is "Off-road vehicle" (ORV) and is consistent with the executive order. This is more appropriate since few "highways" cross the National Forest.
177. Agree. Changes made.
178. The Forest has tried to do this as much as possible, but some tables are so long that to confine them to one page would make them illegible.
179. The non-motorized recreation prescription does allow for limited resource development projects. Since these are not wilderness areas they are managed for other multiple uses. Motorized administrative use is also permitted. The intent of this prescription is to provide the recreating public a non-motorized recreation experience. The amount of permitted motorized use will be insignificant, and will not detract from the intent of the prescription.

SPECIFIC COMMENTS

I. Proposed Land and Resource Management Plan

A. Section II Comments

- 180 Pages II-7 and 8. The graph on page II-7 shows a dramatic increase in projected population and page II-8 narrates these figures "...population should reach 64,000 by the year 2000. . This 106 percent increase compares with the State of Utah's 'high development scenario'". In this scenario, the Utah State Planning Coordinator predicts a 71 percent increase. How was 106% predicted growth determined? This same table and narrative is included in the EIS pages III-9 and 10 and similar comments apply
- 181 Page II-11, Paragraphs 2 and 3: The relationships between non-agricultural interests, regional service centers and agriculture that the document seeks to establish are not clearly explained.
- 182 Page II-14, Final Paragraph, Lines 7-8: As it now reads, "One at the beginning of June and the other at the end of September", is not a complete sentence
- 183 Page II-20, Paragraph 5, Line 8. The Bonneville cutthroat trout is also found in the south end of the Fillmore Ranger District.
- 184 Page II-22, Paragraph 2, Lines 9-10. Was the statement that many visitors "do not want more developed sites and facilities" based on visitor surveys? This statement seems to be "slipped" into the discussion about the benefits of camping away from developed sites, but is not discussed any further. More information is needed about this topic.
- 185 Page II-23, Paragraph 1 This is a redundant repetition of a prior paragraph on page II-22
- 186 Page II-24, Paragraph 1 "With the exception of some which are strategically located " should read "With the exception of some trails which are strategically located. " The first statement is ambiguous
- 187 Page II-24, Paragraph 2 The paragraph states, "A trail management review was conducted in September, 1980. Since then the system inventory has been reduced from 1,008 miles to 897 miles " More information needs to be provided as to why the system inventory has been reduced and how that relates to future demand projection or expected trends for forest trails
- 188 Page II-25, Paragraph 1 The paragraph states, "Some properties, such as the Fremont village called Nawthis near Gooseberry Creek, promises to revolutionize both our thinking and textbooks of Utah prehistory " Some elaboration as why this is so would be helpful. Given the significance of the site, the Plan should include specific management direction regarding its protection and development
180. The growth rate was computed by taking the baseline population projection for Beaver, Millard, Piute, Sevier, and Wayne Counties that was calculated for the 1980 "Utah 2000." The population impact projections for the Intermountain Power Project that were furnished in the socioeconomic portion of the Final EIS for that project were then added. The population impact projections furnished in the Uinta-Southwestern Utah Coal Region Bound Two EIS were also added. This gave a projected population of about 64,000 people in the Sevier Social Resource Unit in the year 2000. The 106 percent growth figure was then calculated from the projected population of 64,000.
181. With a relatively fixed population in the agriculture sector the growth of the Richfield HRU as a Service Center will mean that the percentage of the population in the non-agricultural sectors will increase. The result of this shift is explained in the fourth paragraph of the page.
182. Change made.
183. Change made.
184. The statement is based upon public responses received during the early stages of the planning process. Some people stated they do not want more facilities because Forest campgrounds compete with private sector ones located around the Forest. Other people did not want more developed recreation sites because the Forest already has too many people.
185. Change made.
186. Change made.
187. Trails dropped from the system were those which paralleled roads and were not used. Also, some roads which were carried on the trail inventory were dropped
188. Text has been expanded upon.

189 Page II-28, Paragraph 1 Exception is taken to the statement, "planned management activities would not significantly impact (sagegrouse) " Range improvement practices may severely impact this species if not properly planned One way would be to radically reduce or remove sagebrush Past management has impacted sagegrouse in Seven Mile and Tidwell Slopes

190 Page II-29, Paragraph 4, Lines 14-16 The document indicates that trends are up for the bald eagle, prairie dog, and cutthroat trout, and static for all others What types of trends are these--numbers, distribution, health?

Page II-33, Paragraph 3, Line 1: Elk numbers should not be finalized until the Elk Herd Unit Plans are completed.

191 Page II-35, Paragraphs 1 & 2 Again, elk numbers should not be finalized until the Elk Herd Unit Plans are completed We agree that there will eventually be a point reached when harvest success, by present standards, will diminish Public criticism can be minimized by good planning and honest efforts by the managing agencies Change in hunting and fishing patterns is unavoidable

192 Page II-37, Paragraph 3: An addition needs to be made to this sentence. As the sentence now reads the reader only knows that there is a shift from "projects that benefit big game terrestrial wildlife", but no indication as to what the shift is towards.

193 Page II-49, Final Paragraph Recreation facility damage that was not covered by emergency funding is listed here as approximately \$223,000 Are there any plans for rehabilitation? This same estimate appears on page III-50 of the EIS

194 Page II-54, Paragraph 1: The statement that 423 acres are "presently" being evaluated for coal leasing is somewhat misleading The tracts were evaluated in an October 1983 Final EIS Coal leasing is currently on hold, if and when coal leasing is again initiated a supplemental EIS will probably be needed

195 Page II-59, Final Paragraph The Fishlake law enforcement situation consists of a number of changes that cost money What allowances are there for budgeting?

196 Page II-67, Final Paragraph While development and maintenance of radio and communications sites may not considered to be a major impact on existing lands in terms of access, they can present a visual intrusion. Is that aspect considered in siting?

197 Page II-68, Final Paragraph: Is there a budget for increased trail maintenance activity? How will the costs for these programs be covered?

198 Page II-69 and 70 These existing and proposed corridors are very difficult to locate on the map It would be helpful if the routes themselves

189. The plan has built-in protection factors for Management Indicator Species (MIS ) The sage grouse is an MIS of the sage nesters guild Other factors are also built in to insure habitat and species diversity and multiple-use management.

190. This reference could not be matched to either the EIS or the Plan. However, if your reference is to the chart depicting trends on page II-28, it is for an estimation of population trends.

191. A good faith effort was made to acquire the best numbers from the Utah Division of Wildlife Resources. Situations can change, and the numbers will be reviewed when the Plan is revised.

192. This will be corrected. The shift is towards projects benefitting fisheries and small and nongame species. The change has been made in the Plan.

193. There are plans for rehabilitation. Funding remains questionable.

194. Wording was changed to show evaluations have been completed.

195. Budgeting is part of the Planning process. See for example the bottom portion of table IV-1.

196. Yes. Any proposed communications site will have to be compatible with the standards and guidelines for the management area it is to be located in. A site specific environmental analysis will be conducted. If visuals are important, which they often are with communications sites, they will be considered.

197. The Forest Plan budget does represent a significant increase in trails maintenance activity.

198. The legend on the north half states that the dotted lines are the existing corridors. Because of other comments, the term "Proposed corridors" on the Legend has been changed to "proposed windows." This is to alleviate some confusion.

The comment addresses both existing utility routes and proposed corridors; there is a difference in meaning between these two terms, i.e., routes vs. corridors. The term "route", as used in the comment, refers to existing utility rights-of-way on the National Forest. The term "corridor", in Forest Service planning, indicates opportunities for expansion of existing right-of-way widths, thereby permitting additional utilities within the expanded width.

The Fishlake National Forest does not plan on labeling existing or proposed rights-of-way that are within proposed corridor designations. The ultimate question or concern is ..do the proposed corridor locations meet the needs of the energy industry, while protecting and, where required, preserving the resource values and uses on and off National Forest System lands?

were labeled on the "Utilities and Transportation Management Map" For example, the State questions whether the transportation and utility corridor identified on the south end of the Beaver Ranger District is really needed Adequate space and more gentle terrain occurs in the lower elevations on BLM property to the south where a powerline and major roadway presently exists, however, it is difficult to comment more extensively at this time because the route identified on the map is not labeled-a necessary piece of information in order to make an evaluation of the Plan's treatment of the proposed route

B. Section III Comments

199 Page III-3, Final Paragraph The document states, "Much of the existing roadless area will remain in an undeveloped state at the time of the next planning sequence and will be reconsidered for wilderness proposals at that time " What management guidelines will be used to manage these areas Will they be managed to protect wilderness values or will development be allowed if the demand is present?

C. Section IV Comments

200 Page IV-1, Paragraph 3- The Plan states, "Changes resulting from the budget appropriation process shall not be considered a significant amendment " Given the current economic climate, a plan based on a 150% increase in funding over present, and no intent to involve the public in changes based on appropriations--the State is concerned that it may be approving of a Plan which could change significantly in some areas without its knowledge or participation It is requested that the Forest make some provisions to assure state participation in plan amendments that are a result of the appropriation process

201 Page IV-6, Research The State supports the Forest's goal of establishing research natural areas

201 Page IV-7, Water Rights The Forest is encouraged to work closely with the State Division of Water Rights in its efforts to secure water rights

202 Page IV-12, Paragraph 1 The first MANAGEMENT ACTIVITY listed should read "CONTINUATION OF DIVERSITY ON NATIONAL FORESTS "

203 Page IV-15, Final Paragraph The second GENERAL DIRECTION under Recreation Opportunities and Use Administration (A14 and 15) proposes to "close or rehabilitate dispersed sites where unacceptable environmental damage is occurring " How long are these sites to be closed? How will the closure be mitigated? Are there any plans for dealing with the displacement of users?

204 Page IV-18 Wildlife and fish resource management should describe general directions and standards and guidelines for the construction of fences which will not impede wildlife movement as well as insure the highest degree of safety We would recommend Bucklog fences in elk summer range All unnatural

Appendix G of the Forest Plan discusses the inventory, analysis, and evaluation process for corridor designation. The "Utilities and Transportation Map" is the end result of this process. Proposed corridors are shown on the map; not existing or proposed utility rights-of-way.

Existing and proposed energy rights-of-way and existing highways were inventoried, analyzed, and evaluated to determine if the rights-of-way would or could be expanded in width to meet the definition of an energy corridor. (See page G-2 of Appendix G for this definition )

Corridor locations were proposed for those rights-of-way where expansion in width met the analysis and evaluation criteria.

Actual corridor widths were based on evaluation criteria covering utility design and engineering, safety, and resource values and uses; but only as such criteria applied to existing and proposed energy transportation projects. (See pages G-8 and G-9 of Appendix G for a list of the evaluation criteria.) The proposed widths were those considered as best meeting the specific design and engineering concerns of industry and, at the same time, best meeting the associated resource concerns.

The utility corridor proposed at the south end of the Beaver Ranger District meets existing and proposed industry needs as we know them, and protects and/or preserves important resource values and uses.

199. Various management guidelines will be used in the former "roadless areas" according to the prescription applied. Development will be allowed if it conforms to the management direction for a given area.

200. Any significant deviation from the projected outputs could require a revision of the Plan. A revision entails the entire EIS process so the State, along with other interested parties, would be involved. The provisions you request are already in the regulations that guide Forest Planning.

201. The Forest will continue to follow established procedures for filing for water rights.

202. Changes made.

203. Sites will be permanently closed and rehabilitated. There are no plans for dealing with the displacement of users since there is more than ample space to provide for dispersed user needs.

204. This is taken care of in the Plan in the Range Standards and Guidelines. See page IV-23 S&G 1.A.

A Standard and Guideline has been added to the above section which will improve water developments for wildlife. It will be Section B under 1 on page IV-23.

08-1A

water sources should be constructed and maintained for the availability and safety of wildlife. Bird and small mammal ladders or perches should be installed to avoid drownings.

- 205 Page IV-20, Paragraph 2, Standards and Guidelines (C). The meaning is not clear. Can cuts exceed the levels or, does it mean cover can exceed the given levels? Also, does it mean cutting can exceed levels to correct disease problems? And, does disease apply to aspen only? 205 It means that cuts can exceed the levels under some circumstances.
- 206 Page IV-21, Range Resource Management, General Direction Item 1. Change the sentence to read "provide forage for livestock and wildlife within range capacity to sustain local dependent livestock industry and the interests of wildlife." 206. Wording was changed.
- 207 Page IV-21, Standards and Guidelines 1(A). It is not reasonable and probably not possible to place utilization restrictions on free ranging wild animals. 207. Guidelines refer to total utilization by all animals.
- 208 Page IV-23, Range Improvement and Maintenance, Standards and Guidelines (A). Does FSH 2209 22-R4 relate to fences and water development for wildlife movement and safety? 208. See two previous responses.
- 209 Page IV-32, Reforestation. Standards and guidelines should be established to insure tree height and cover is adequate for hiding deer and elk and for providing thermal cover before harvest removes adjacent shelter belts. 209. General Direction 6 under silvicultural prescriptions, E03, in the Forest Direction covers this.
- 210 Page IV-33, Riparian Area Management. Concern is expressed throughout the plan in regards to proper management of riparian areas. Given the many critical functions of riparian areas, the State supports special protection and management of these areas. 210 No comment.
- 211 Page IV-34 and 35, Water Uses Management. It is recommended that the Forest work closely with the State Division of Water Rights on all water right matters. 211. The Forest is currently working closely with the Division of Water Rights in Cedar City, Richfield, and Price.
- 212 Page IV-37, Paragraph 1, Standards and Guidelines: How does the Forest define "thresholds"? Have specific thresholds been established? 212. Wording was changed with a reference to Appendix H.
- 213 Page IV-37, Paragraph 2 and 3, Standards and Guidelines: There appears to be a disparity between paragraph 2 and 3 as to activities allowed on steep slopes? "C" allows limitation of coal "activities" on 60 degree or greater slopes, while "B" may limit coal activities on 40 degree slopes. 213. Wording was changed to show activities may be limited on slopes greater than 40%.  
214 Spelling was corrected.
- 214 Page IV-47, Paragraph 1: Under H, "sensative" should be "sensitive". 215. The management areas for the Fishlake Forest are based on a different concept from those on the Wasatch. On the Fishlake, the Management areas are repeated at various geographically separated locations across the Forest where management direction will be the same. Thus the Management Area map, included with the Plan, is the only practical way to display the location of the management areas.
- 215 Page IV-50, Management Area Summaries. A format change for this section is recommended. The Wasatch-Cache National Forest Plan provides a good example. First, a description of the area and a map should be provided, then an identification of the management prescription. This would have been especially helpful in terms of Prescription Area 10A. In the draft documents

The Plan was designed for the professional resource managers who will have to manage Fishlake National Forest. Thus it is of necessity complex.

information about the specific areas is limited and hard to find. A narrative about the areas involved and where they are located would be of great assistance to the reader.

Instead of first providing a clear picture of each management area, the Fishlake plan in short shift jumps into the computer printouts which can be fairly overwhelming to the lay reader. Forest plans are necessarily sophisticated and complex, but the proper format can help in its readability--which in turn increases participation. Additionally, without a map that brings the management areas together it is difficult to get an idea of the comparative extent of the various management areas.

- 216 Page IV-67, Paragraph 1, General Direction: A definition of "Frissell Condition" and its associated classes needs to be included in the glossary. 216. The Frissell publication which defines these classes is cited in the references.
- 217 Page IV-79 Paragraph 1, Line 4: Critical big game range occurs in certain of the 3B areas, e.g., Thousand Lake Mountain. Seasonal road closures may be necessary to reduce disturbance on wintering big game. 217. This prescription does allow for seasonal road closures. Also, the Forest transportation plan will take care of these concerns.
- 218 Page IV-107, Rights-of-Way, General Direction 1: Omit the word private and substitute the word available so the sentence reads, "Acquire available lands needed." The original narrative suggests a threat to the private sector as it could be interpreted to mean that condemnation proceedings are possible. 218. Not necessary to change since this is simply a general direction.
- 219 Page IV-109, Prescription 68: We have concerns with a blanket decision to favor livestock over wildlife in this area. Specific critical areas for deer, elk, and sagegrouse have been omitted on Thousand Lake Mountain and the Tidwell Slopes. 219. The prescription assignment in the vicinity of Forsyth Reservoir has been changed to deal with this problem. Sage grouse is one of the management indicator species of the sage nesters guild. As such, it receives protection so that it can not fall below minimum viable population. Further, the Forest Service has guidelines controlling vegetative treatment projects around sage grouse strutting grounds which will be monitored.
- 220 Page IV-112, Wildlife and Fish Resource Management, General Direction 2: Again, elk numbers should not be finalized until the Elk Unit Management Plans are completed. 220. See reply number 191. Also, by regulation, this Plan is the guiding document for management of the Fishlake National Forest.
- 221 Page IV-155, Management Prescription 10A: How will this prescription apply to reintroduction of wildlife species, i.e., bighorn sheep on the Tushar Mountains. 221. Creation of Research Natural Areas on the Tushar Mountains will mean that any proposed action or activity will have to show it does not impact the natural processes of these areas before it can proceed. The Forest Service manual (4063.3) states: "A research natural area must be protected against activities which directly or indirectly modify ecological processes..." Any proposal to transplant animals to the Tushars or Canyon Range would have to be reviewed against that standard.
- D Section V Comments
- 222 Page V-2, Section B (5): "Reliability" in the second paragraph should read "reliability." 222. Change made.
- E Section VI Comments
- 223 Page VI-26, Sensitivity Level: An elaboration of the definition of "sensitivity level" as to the criteria for each level would be helpful. 223. The definition is designed for the general reader. Forest Service managers have detailed references that give the criteria for the levels. Repeating these criteria here would duplicate existing material and make the plan unnecessarily bulky.

F Appendices Comments

224 Page D-3, Beaver District, Water Development Modification The Forest is encouraged to plan all water developments, particularly ponds, so that it is fenced to protect the banks and allow vegetation to grow. If livestock use is necessary, a method should be devised to deliver water from the pond to the livestock.

225 Page G-14, Evaluation Process, Table D. In the evaluation of effects of highways on range or high interest wildlife, were highway mortality problems of deer and elk considered?

Also note that under Item (e), Highway 72 lies between Loa and I-70 not Salina and Loa.

226 Page G-28, Table F. Management Direction for planning windows should consider critical ranges used by high interest wildlife. Construction during seasons of critical use should be avoided.

227 Page G-39, Item (e). The visual impact of power transmission lines through Hogan Pass needs further evaluation. The Tidwell Slopes are open and there is little in the way of terrain or vegetation which would screen a power line.

228 Page K-3, Paragraph 6 The State supports the Forest Service's efforts to reserve the lower elevation lands for wintering deer and elk.

II. Environmental Impact Statement

A Section S Comments

229 Page S-16 Paragraph 1 The discussion here is limited to the irretrievable commitments of resources due to timber mortality. What about impacts on recreation, such as visual intrusion, closure of roads and trails due to logging and other activities?

230 Page S-16, Final Paragraph This discussion concentrates on market-valuable outputs and resources. Many of the benefits resulting from recreation are of non-market variety, such as aesthetics, solitude, species diversity, etc. These should be discussed.

B Section I Comments

231 Page I-7 The boundaries on this map are not clear. Iron County should be displayed on this map since it does contain a small portion of the Forest.

224. This will be done where feasible.

225. As part of energy transportation planning, Federal, State, and Interstate Highway routes were considered as potential locations for utility corridors. The highway routes were not analyzed for potential expansion or widening of the actual road running surface and/or road right-of-way.

The analysis and evaluation for these highway locations did include effects to range or high interest wildlife, but only as such would be affected by the construction and maintenance of utilities. Impacts to critical wildlife and fish resources and habitats, as a result of utility construction and maintenance activities within and adjacent to the highway rights-of-way, were analyzed and evaluated. Page G-15 discussed those highway routes where wildlife and fish impacts would be difficult to mitigate, i.e., Interstate 70-Salina Canyon, State Highway (U-13)-Clear Creek Canyon, Interstate 15-Scipio Pass, State Highway (U-72)-Fremont Junction to Loa, State Highway (U-25), and State Highway (U-153).

Correction is noted on State Highway (U-72). This highway will be listed in the narrative as located between Fremont Junction and Loa, Utah.

226. Direction and Standards and Guidelines for wildlife and fish resource management are included in general Forest-wide management requirements and in specific management area prescription requirements.

The Forest-wide General Direction and Standards and Guidelines for wildlife and fish resource management state that.. "activities or practices that would negatively impact endangered, threatened, or sensitive plant or animal species will be prohibited" (page IV-19 of the Proposed Land and Resource Management Plan).

Management Prescription 1D on page IV-55 of the Proposed Land and Resource Management Plan states that... "management of wildlife and fish habitats within corridors will be consistent or compatible with adjacent management areas."

In addition to the wildlife and fish resource management direction listed in the general Forest-wide and individual management area requirements, the following direction will be added to Management Prescription 1D for utility corridors:

The construction, operation, and maintenance (COM) plan for utilities to be permitted will contain a wildlife/fish mitigation section. As part of this writeup, mitigation measures may be developed for the protection of wildlife/fish species and habitat during seasons of critical use, such measures will be developed where applicable or in response to state or federal agency comments on COM plans.

227. The terrain within the proposed corridor width on either side of State Highway (U-72) was analyzed for type of scenic quality, visual

232 Page I-9 Paragraph 5. "Recreation use" is equated with OHV use in this discussion. As there are other users and uses, perhaps it should be added that OHV use is only one aspect of recreation use.

C. Section II Comments

233 Chapter II. In the discussion of each of the eleven alternatives, Alternatives 6, 10, and 11 are not assigned a "nondevelopment prescription". What is the rationale for including or not including nondevelopment prescriptions as a constraint to the model?

234 Page II-1, Paragraph 2. The relationship between management prescriptions and the alternatives is not clear in this paragraph. This important relationship should be better articulated.

235 Page II-6 Paragraph 1, Lines 6-8. The statement is made that "Developed recreation was modeled using MTVEST, its effect on efficiency was deemed insignificant due to the small amount of the land base involved in developed recreation sites." Developed recreation is basically a non-market value and may still be important, as it is included in the multiple use mandate.

236 Page II-23, Paragraph 1. Addition of a definition of "PAOT Days", as well as the definition of PAOT already included in the glossary, would be helpful.

Pages II-25 through II-28. These figures are confusing.

237 Page II-85, Alternative 11. Alternative 11 should include consideration of long-term demand in addition to an addressing of short-term needs. If long-term demand is not anticipated and planned for negative effects will be difficult to mitigate.

D. Section III Comments

238 Page III-23, Paragraph 2 and 3. Some mention of funding should be included in this discussion. Paragraph 3, lines 2 and 3 state, "With more people seeking the same opportunities in the same area, a point will eventually be reached where the experience is degraded." What are the types of "opportunities" being sought? How was this measured--visitor survey? Can any techniques be used to alleviate this problem of experience degradation--education of frequently used sites, relocation by permit, zoning for day use, etc.?

239 Page III-24, Paragraph 2, Lines 4 and 5. An explanation as to why the deadline cannot be met and the effect of not meeting the deadline, would be appreciated.

Page III-25, Paragraph 2. The EIS suggests that protection of the Forest's cultural resources and mitigation of the problem is occurring through

sensitivity, and scenic overlooks. It was determined that underground and over-the-surface facilities would not change the existing visual quality objectives within or outside of the corridor. It was also determined that above ground electrical transmission lines could change the visual quality objectives within the corridor itself, but would not change those objectives for areas outside of the mile wide corridor, i.e., the proposed corridor is not part of a scenic backdrop/background for sensitive visual overlooks or travelways in this part of the National Forest.

There are no transmission lines in the proposed corridor at present, and through the use of visual simulations and non-specular conductor and towers, one major transmission line should not change the corridor's existing visual quality objectives. More than one major transmission line would cause visual management problems, but again only within the mile wide corridor itself. Long-range industry proposals show no more than one major electrical transmission line for the area in question.

228. No comment.

229. These are irretrievable commitments.

230. Not appropriate to this section. Chapter IV discusses these effects.

231. Change made.

232. Not appropriate to this section. This is a statement of an identified issue. No attempt is made to expand upon issues.

233. In the development of alternatives, the Fishlake NF evaluated a wide range of multiple-use management prescriptions in order to address the issues, opportunities, and concerns identified in the planning process. In order to address the goals and objectives of some alternatives, a "nondevelopment prescription" was assigned to some areas of the Forest.

In other alternatives, the Forest evaluated the effects on economic efficiency and feasibility of producing a certain level of outputs while providing the option that certain areas of land could remain undeveloped. For these reasons, Alternatives 6, 10, and 11 were not assigned the "nondevelopment prescriptions" in given areas. It should be noted, however, that the FORPLAN model had the option to choose such prescriptions if they satisfied the overall goals and objectives of the most cost efficient solution given the constraints.

234. Paragraph reworded to clarify the concept. Also, see page II-3

235. Direction was to put developed recreation in the group of market outputs since fees are charged for the use of recreation sites.

Less than two one-hundredths of one percent of the Forest's land base is in developed recreation sites. Changes in area between alternatives would be less than one percent of that. That is why we

240 education of the public. Sometimes education is counterproductive to protection. For example, some people may not realize the value of pot hunting until they are educated as to what is available and where it may be found. Education, while important as a passive management technique, is not adequate and requires positive, assertive management. Some sort of enforcement program is needed to mitigate this problem.

241 Page III-25, Paragraph 3 This section on the Clear Creek Canyon Project needs to be updated. Please check with the Division of Parks and Recreation for current information.

242 Page III-25, Paragraph 4, Lines 4 and 5 It is stated that "Ideally, the primary responsibility of the employee is to report any activity initiated by the public or the agency that is detrimental to cultural resources." A discussion of what the Forest's law enforcement authority program is would be helpful.

243 Page III-28, Paragraph 1, Line 3 As the abbreviation "T & E" may not be known by some readers, it is suggested that "Threatened and Endangered" be used instead.

244 Page III-29, Paragraph 4, Line 15 "cutthroat" should read "cutthroat."

245 Page III-31, Paragraph 1, Lines 1 and 2 The sentence should be changed to read "There are thirteen species of sensitive plants, and one threatened plant species, on the Forest", i.e., add the word "plant" after threatened.

246 Page III-33, Paragraph 3 The adverse impacts on fish habitat and production by increased mineral development, oil and gas exploration, road construction, timber harvest, and livestock production are discussed in this paragraph. Will these impacts be mitigated?

247 Page III-44, Paragraph 5 "Inflected" should read "inflicted".

#### E. Section IV Comments

248 Page IV-5, Paragraph 1 The paragraph states which alternatives have the most acreage closed to OHV use and which alternatives have the most acreage with restricted classification, as shown in Table IV-2. This discussion should also include which alternatives have the most acreage open to OHV use. Alternatives 1 and 5.

249 Page IV-10, Table IV-4 Do the "Estimated Acres To Be Surveyed" include the actual number surveyed or the number subject to "sample surveys"?

250 Page IV-17, Figure IV-1 The representation of the first and second decade should be better explained. Why do other analyses deal with all five decades while this only deals with the first and second decades?

did not include developed recreation in the FORPLAN model which emphasizes dollar values.

The use of different models cannot be construed as implying developed recreation is considered unimportant. It is very important on the Fishlake.

236. Definition added.

237. Planning is for the long range. However, given the current conditions, the Forest cannot meet projected long term demand. Part of the Plan's function is to point out these problems.

238. The section refers to all types of recreation opportunities sought on the National Forest. The section relates to the "Affected Environment", not to a discussion of possible solutions.

239. The overview has been targeted to be completed prior to the next iteration of the plan (10 to 15 years). The job hasn't been completed because of lack of funding and work priority.

240. Public education has worked for the Forest. The discovery of the Five Fingers Ridge site was a result of public education. In the Sevier River Valley, tentative plans have been made to establish an amateur archeological society - which will place a great deal of preservational responsibility in the hands of local citizens. Peer pressure goes a long way in curtailing behavior deemed socially unacceptable. Aggressive law enforcement is also needed to protect the resources, but where cultural resources are so widespread, it is impossible to protect all sites.

241. This section has been updated.

242. Not appropriate to this section. See page III-62, final paragraph.

243. The change has been made.

244. The change has been made.

245. The change has been made.

246. These impacts will be partially mitigated by following the Standards and Guidelines in the General Forest Direction and individual prescriptions. Specific stipulations are found in Appendix H. Additional mitigation will be considered on an individual project basis.

247. Change made.

248. Added to text.

249. A small portion of the acres would be sample survey (20%). Most would be 100% surveys.

Page IV-58, Special Areas. The State fully supports the maintenance of the Partridge Mountain Research Natural Area and the preferred alternative's recommendation that Fish Creek and Bullion Canyon be considered for establishment as RNAs.

251 Page IV-65, Paragraph 3. In this discussion on increased sedimentation, impact on potential loss of fish spawning habitat should also be mentioned

252 Page IV-69, Paragraph 5, Line 8: Should be changed from ". of Fish Lake during two, periods of two weeks each" to "...of Fish Lake during two periods of two weeks each".

253 Page IV-71, Paragraph 6. This paragraph discusses the use of MIVEST in the economic efficiency analysis. There are benefits accruing that are not captured by these criteria--dispersed recreation is one.

254 Page IV-86, Paragraph 4, Lines 5-7. It is stated that "...project activities such as timber sales and road construction temporarily disrupt recreation uses by reducing or changing the type of recreation that normally would occur on the area." Some of these project activities may permanently disrupt recreation uses that normally would occur on the area.

#### F. Appendices Comments

255 Page B-13, Paragraph 1, Lines 3-5. It is stated that "Nonpriced outputs and qualitative environmental effects are portrayed with specified constraint sets." Developed recreation was often assigned "small values," and for Alternative 11 as well as others, nondevelopment prescription was not a constraint. It seems as if non-valued outputs get the "short end" of the analysis. This is not consistent with the Multiple Use mandate

256 Page B-13, Paragraph B(b). It is indicated that "A wide range of choices would be available to the model in reaching a cost-efficient solution." This is not true for each alternative. A non-development prescription was not favored by local interests (Alternative 6)

257 Page B-14, Paragraph 1(f), Lines 2-4. It is stated that "Recreational outputs are valued only to the extent that the output is less than or equal to demand." It seems as though demand is already greater than supply (fishing, hunting, etc.) As demand outstrips supply, there may be a "premium" placed on a recreational opportunity

258 Page B-14, Paragraph 3. This section is vague. It sounds as if the final analysis was a judgmental, subjective decision

259 Page B-34, Paragraph 2, Lines 4 and 5. This sentence, "Because it was believed desirable to have some kind of output value in FORPLAN, the following procedure was undertaken" makes the procedure sound "second rate" and subject to arbitrary value judgments regarding the analysis

250. The plan is for the first decade. The second decade is displayed to show trends. No purpose would be served in trying to show more decades.

251. The change has been made.

252. Change made.

253. This paragraph has been changed to make it clearer. All the items shown in Table IV-30 and IV-31 were analyzed with MIVEST.

254. Substituted the word "temporarily" with "may"

255. The treatment of developed recreation was explained above. The only "Small Value" assigned developed recreation was the small area that developed sites occupy on the Forest.

256. Because a prescription was not required to come into the solution does not mean that the model could not choose it. The statement you refer to in Alternative 6 is "no non-development type prescriptions were required of the model." This does not mean that non-development prescriptions were precluded. In addition, there was a wide range of other prescriptions available to the model. Therefore, a wide range of choices was available.

257. In some alternatives there were times (decades) when the supply of classes of recreation, such as developed recreation, exceeded demand. In these cases recreation outputs were valued only to the extent of the demand. That is to say that if there is not a willing buyer there cannot be a sale. Wildlife outputs were measured separately as WFUD's.

258. In all analysis there is a point where we do not have total knowledge. For example the exact number of deer on the Forest is not known. At that point the analyst has to use the professional judgement of the specialists. Forest Planning is no different.

259. Disagree with your comment. The judgements were not arbitrary as explained in the rest of the paragraph.

Page Eleven  
Attachment

- 260        Page B-35, Paragraph 1 This paragraph is unclear
- 261        Page B-35, Paragraph 5, Line 4 Nonconsumptive use is mentioned Does  
the "value" to the "nonconsumptive" consumer have equal weight?
- 262        Page B-35, Paragraph 6 This paragraph mentions the Forest Service's use  
of the smaller of two estimates This choice may underestimate benefits and  
values
- 263        Page B-62, Paragraph 1 There is a discussion assigning specific  
prescriptions to analysis areas How was the decision made as to which  
alternatives ran under which "assumptions"?
260.        Agreed. The paragraph has been rewritten
261.        The values used are shown on page B-52.
262.        The data that was used was collected by the system that appeared to  
have the most validity. When more accurate data is available it will  
be used.
263.        This was based on the intent of the alternative.

# City of Salina

90 West Main Street  
Salina, Utah 84654

Phone 529-7304 or 529 3651

November 6, 1985

Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

Dear Sir,

Salina City, after review of the travel management plan presented in Salina on Wednesday October 30, 1985, has determined that the designation of the White Mountain Area as a semi-primitive non-motorized area is inconsistent with the interest of Salina City and the citizens of Salina.

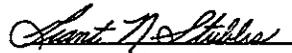
The City Council expresses deep concern that such a designation and the restriction against motorized recreation will have an adverse economic impact on Salina and the surrounding area.

264. The City Council after review of the travel management plan feels that restriction of travel to designated roads and trails would provide adequate protection to the watershed and avoid erosion due to unrestricted, off road travel.

For the above stated reasons the Salina City Council as the representative body of Salina City passed a resolution on November 4, 1985 opposing the designation of the White Mountain area as a semi-primitive non-motorized area and wishes that this letter be included in the public comments when the travel management plan is reviewed and finalized.

Sincerely,

Salina City Council

  
Grant N. Stubbs, Mayor

264. In view of your response, and the response of many others from the Salina area, the designation of closed to motorized use for the White Mountain area has been changed to "restricted," in the Travel Management Plan (Appendix P). This will allow motorized travel in the area on designated routes, as suggested.

GNS gn

*Southern California Edison Company*

P O BOX 410  
100 LONG BEACH BOULEVARD  
LONG BEACH CALIFORNIA 90801

R J JULIFF  
MANAGER  
OF  
REAL PROPERTIES DEPARTMENT

November 14, 1985

Mr. J. Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
115 East 900 North  
Richfield, Utah 84701

Dear Mr. Taylor:

SUBJECT: Fishlake National Forest  
Draft Land and Resource Management Plan

In response to your letter of July 22, 1985, Southern California Edison Company appreciates the opportunity to comment on the Fishlake National Forest Draft Land and Resource Management Plan.

We are very pleased to see that the Fishlake National Forest recognizes utility corridors to the extent shown and described within the texts and maps utilized in the Draft Plan.

Edison, therefore, supports any alternative that includes, as its basis, Appendix G of the plan entitled "Energy Transportation and Utility Corridor Evaluation".

Again, we thank you for this opportunity to comment on the plan, and commend the Fishlake National Forest for recognizing the need to plan for utility corridors. For further information and/or future correspondence, please contact J. R. Wilson at (213) 491-2880.

Very truly yours,



904s

68-1A

12 November 1985  
601 Parker  
Houston, TX 77007

U.S Department of Agriculture  
Forest Service  
Fishlake National Forest  
115 East 900 North  
Richfield, UT 84701

Re: 1920

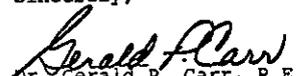
Dear Sir or Madame;

Thanks for sending me the Draft DEIS and Proposed Forest Land and Resource Management Plan for review.

Since I have no expertise in your discipline I found the quantity of data to be overwhelming and, therefore, could not offer useful comments.

It does appear, however, that my property borders on or is possibly included in areas which are targeted for acquisition. I would appreciate a letter from you indicating whether the Forest Service has an interest in acquiring my land.

Sincerely,

  
Mr. Gerald P. Carr, P.E.  
(713) 880-4592

265. Since you did not provide a legal description of your land in your letter, we can only address the question in general terms. Those lands which are indicated for acquisition on the Land Ownership Plan are simply lands which would be desirable to include in the National Forest system, mostly for consolidation purposes. There is no intention to embark on an aggressive land acquisition program. Most acquisitions are accomplished through land exchanges whereby private lands within the National Forest boundary are exchanged for equal value National Forest lands, also within the National Forest. Most cases are initiated by the private landowner.

If your lands are designated as acquisition lands in the plan, this simply means that the Forest Service would be amenable to a land exchange involving those lands.

06-1A

265



## Utah Wilderness Association

455 East 400 South B-40/Salt Lake City UT 84111/(801) 359 1337  
November 19, 1985

Mr Kent Taylor  
Forest Supervisor  
Fishlake National Forest  
Richfield, Utah 84701

Dear Kent,

From the outset let me thank you for providing this additional informal period of time to comment on the Fishlake National Forest Land Management Plan. However, as I discussed with you on the phone our substantial complaint concerning the intransigence of the Forest Service to formally extend the public review period for the Fishlake National Forest ( and others ) for a period exceeding the additional thirty days you have provided still exists. As an appendix to this comment we are providing for the record a copy of our correspondence to the Regional Forester and the Chief of the Forest Service concerning this issue.

As you know, from October 25 to November 22 we have been in the process of attempting to comment on two forest plans--the Fishlake and the Manti-LaSal ( the formal comment period for the latter ends on November 22 as does the informal comment period on the Fishlake ) That is a task we challenge each forest planner or Supervisor to undertake. It is simply a burden on our ability to read a long and complicated plan, look at the planning records and FORPLAN runs, visit the planners on each forest and prepare and write a quality comment.

Because of these constraints dictated by the Forest Service and placed on an interested public and constituent of the Fishlake National Forest, it is very unlikely we will be able to spend the time with your staff and the planning records to fully analyze this plan. We want to emphasize this is not our decision and if we were not so restricted by the Forest Service to access and participate in this process we would utilize the full 90 days to analyze this

document

Our complaint is not with the effort the Fishlake made during the public review process. We met with you and your planners in Richfield and in field workshops as well as in our office over the years. We fully appreciate Andy Godfrey's visits to our office during the initial public review phase and we appreciated receiving the forest plan a couple of days early. But that did not get at the issue. At the same time three other plans were out in final or draft form with comment and review periods identical or about 30 days apart.

The above concern we formally register as a complaint about the public involvement process on the Fishlake Forest plan. In our opinion, when the Forest Service decided to cast public involvement concerns aside they threw out the proverbial baby and bathwater.

From a reading of the forest plan this is what one sees while looking at the preferred alternative. After the first decade timber harvesting is increased 176%. The reason? In essence it is because FORPLAN told us *we* could do it. It is not because it is an objective *we* want to meet or produce. In fact, the preferred alternative after the first decade, simply removes a moderately sensible budget and demand constraint that was brought into solution during the first decade. No reason is offered for such a remarkable change.

266

Throughout the document it is clearly noted domestic grazing is overobligated. Yet in the description of alternatives (II-63) the EIS shows only a 3,000 AUM decline in the first decade--a 2%<sup>+</sup> decline. After five decades grazing goes down only 4%! That is an awfully shallow way to treat an overobligated range program. But even more confusing is page II-70 which shows grazing in the first decade under Alt 11, the preferred alternative, going up 51,000<sup>+</sup> AUM's and going up 62,000<sup>+</sup> by the fifth decade. That is no way to handle an overobligated range program and certainly sheds doubt on what the document is portraying to the public.

267

The EIS notes one RNA exists and two were proposed under Alt 11. It does not appear that these proposed RNAs were included in any other alternatives. There is no explanation why 10 alternatives including the non-market alternative do not harbor RNA proposals and only the preferred alternative harbors RNA designations. Furthermore, the value of the RNAs created in the preferred alternative is, according to the plan, in jeopardy even before their designation. This is because the proposed plan refuses to withdraw the areas from any mineral entry and even fails to indicate how mineral conflicts, should they arise, will be mitigated and still maintain the intent of an RNA.

268

266. The Plan is for one decade only. The allowable sale quantity will remain at current levels. The next iteration of the Forest Plan (10 to 15 years from now) will have to evaluate the timber situation at that time. This could lead to an increase, decrease, or no change from current conditions.

267. The numbers on page II-70 were incorrect. This table was formed by computing the differences from the first decade of Alternative 8. The correct numbers are a decrease of 3.1 thousand AUM's in the first decade and a projected decrease of 6.6 thousand AUM's in the second decade.

Modeling indicates that the grazing numbers portrayed will relieve the overgrazing situation, assuming the budget for range is available. Naturally, different decadal range budgets will mean different grazing numbers. The Forest is to manage to the Standards and Guidelines in the Plan, not the modeled numbers.

268. Alternative 5 also has the RNA's proposed Management Prescription 10A on page IV-156 of the Plan which calls for withdrawal of the RNA's from mineral entry. This is in conformance with manual direction FSM 4063.39 "Research Natural Areas should be withdrawn from mineral entry after establishment...."

The preferred alternative maintains that some 720,000<sup>+</sup> or unroaded lands will remain unroaded throughout the decade. At the same time the preferred alternative only recommends part of one roadless area under prescription 35 (most restrictive) and depending on the page from 108,000<sup>+</sup> acres to 192,000<sup>+</sup> acres as semiprimitive nonmotorized recreation. In truth, not one area on the forest is protected from surface disturbing activities while emphasizing natural values. To say the least this is eye-catching given the fact the plan notes there is no place on a 1.4 million acre National Forest that is more than 3 miles from a road--three miles?!

You will not find a map in this comment of proposed roadless areas or other allocations we have made. We simply have not had the time to prepare a detailed map as we have on other forests. However, we have expressed to the Fishlake many times during this planning process our specific concerns on roadless boundaries, for example. Thus we really don't think a map is necessary as you look at this comment and consult previous inputs by the UWA on this process.

From here we will proceed with a more detailed analysis of major resource and planning concerns. First, however, let me again acknowledge, with the already noted hesitation, our appreciation for the additional 30 days of comment period. As I discussed with you, though we are not within the formal time frame for public review you have assured us, as has the Regional Forester, this comment will be considered as though it were filed on time and our access to the administrative review period will not be hindered because this comment did not arrive in your office on October 31, 1985. I also hope you will pass our concerns on to other Fishlake National Forest staff who are interested in what the Utah Wilderness Association has to say with respect to this forest plan since we have put as much effort into the plan as any other interested public. If you have any questions please contact us!

Thanks very much.

Cordially,

Dick Carter  
Coordinator

Wilderness/Unroaded Areas

269 It was a real disappointment to see the preferred alternative not harboring a nondevelopment prescription Why? Certainly, this was an issue throughout the forest plan and the years of working with the Fishlake

Our first concern is a complete understanding of the relationship of the newsprint travel plan proposal and the forest The plan itself is not clear with respect to where motorized vehicle travel is not allowed within prescriptions like 5A or 4B In many ways the proposed travel plan seems to be more restrictive For example, winter wildlife range (5A) is shown as closed to motorized vehicles in the proposed travel plan Yet the forest plan does not clearly show such a distinction We certainly support the restriction of such closures but are not clear as to the intent of the plan

270 Though the Utan Wilderness Act did pass the Congress it did not send a signal to ignore wilderness in the forest plan It does prevent you from making wilderness recommendations during this planning horizon It does not prevent you from displaying the social impacts or environmental impacts of not having any wilderness--the only forest in Utah For example, there is no demand analysis on the Fishlake for wilderness type recreation For that matter there is no demand chart for unroaded nonmotorized recreation of the forest Why? Certainly, a substantial public concern, both local and regional exists for backcountry recreation on the Fishlake

271 The issues, concerns and opportunities section is not quite accurate For example, this portion of the document boils the roadless issue down to issue #10, wilderness recommendations and rather summarily disposes this issue by stating the Utah Wilderness Act didn't designate any wilderness on the forest That is not the way the issue was portrayed by the UWA and other publics Our concern expressed back in 1980 and again on December 11, 1984 was the preservation of areas not receiving wilderness designation but also having qualities deserving protection in a large and contiguous body of unroaded land Thus on this issue we must even challenge the issues and concerns raised in the plan That concern also reflected not developing particular roadless lands as a logical compliment to protecting some of those lands

272 At first glance the plan appears to do a reasonable, but inconsistent, job with respect to meeting the concern and not expressing it as a concern in the issues and concerns section of the plan For example, the plan notes some 720,000 acres will still be available for wilderness consideration at the end of this cycle of planning That we heartily applaud The plan also states anywhere from 0 acres to 3,000 acres ( 2,000 acres in the preferred alternative ) of potential wilderness will be developed by timber harvesting

273 That we have no problem with and applaud We would like to know what

269. The Utah Wilderness Act of 1984 directs "That such areas need not be managed for the purpose of protecting their suitability for wilderness designation prior to or during revision of the initial land management plan," regardless of the prescription applied, it is anticipated that over 700 thousand acres will remain undisturbed at the time of plan revision.

270. In this case the travel plan is in conformance with the direction in the Forest Plan which is, to close the areas to motorized travel during the winter season when the animals are stressed.

271. Although the Forest Plan does not consider wilderness, many areas will be managed for non-motorized recreation. Some of these areas can be considered for wilderness designation in the future. The fact that the Fishlake National Forest is the only Forest in Utah not having any wilderness is a result of Congressional action. Significant portions of the Forest have been designated for semi-primitive non-motorized recreation management as a result of management concern for a broader recreation opportunity spectrum. Public responses received during the development of issues did not indicate that there was substantial interest in wilderness or non-motorized recreation management for the Fishlake National Forest.

272. Regardless of how it is put, the issue is wilderness. This is the heading of your comment page. Congress is specific on this subject: PL98-428, Sec.201 (b)(3):

"(3) areas in the State of Utah reviewed in such final environmental statement or referenced in subsection (d) and not designated wilderness upon enactment of this Act shall be managed for multiple-use in accordance with land management plans pursuant to section 6 of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976: Provided, That such areas need not be managed for the purpose of protecting their suitability for wilderness designation prior to or during revision of the initial land management plan;"

Further, the management area map for the Plan clearly shows the locations of planned developments.

273. Nothing eliminates those acres at this time. These are estimates of the acreage that will be available for wilderness consideration when the plan is revised. The 13,000 was a purposefully large number to account for developments such as transmission lines, radio repeater sites, or mines that are not planned in the Forest Plan.

VI-94

eliminates the remaining 13,000 acres though?

There seems to be a significant discrepancy in the numbers the plan portrays with respect to what actually falls within the semiprimitive nonmotorized category Page IV- 5, EIS, states 135,100 acres of the Fishlake are closed to ORV use Page II-58, EIS shows 108,033 acres of the forest fall within prescription 3, SPNM Page II-97, however, shows all 11 placing 192,500 acres in SPNM This needs clarification

- 274
- 275 But way beyond clarification is a major issue Why is only 9% of the forest closed to ORV use? I assume this acreage (135,100 acres) is contained within prescription 3 (108,033 acres) and the wildlife winter range prescription? Does this figure include snowmobile use?

To add to this major unresolved issue is the allocation of prescription 3 3A allows for timber harvesting, including clearcutting, mineral development and exploration Roads are built and closed to the public 3B allows for mineral development and exploration What we see is an area to be administered for semiprimitive recreation opportunities being developed for timber harvesting, motorized access for grazing, and mineral development It makes no sense to us Again we cannot support this plan due to this obvious inconsistency It is as though years of work with the Forest Service on protection of a number of important areas simply went out the window with the Utah Wilderness Act It sets in concrete our belief that without wilderness forests like the Fishlake will never stand up and take the lead in protecting lands without Congress and the public pleading, begging and dragging the Forest Service to do it without the Wilderness Act

- 276

For at least 10 years the Fishlake has known of areas of particular importance to conservationists and the reasons for protecting those areas Our concerns have been flat out ignored in this plan.

Beyond even this inability to satisfy at least portions of all of your constituents the plan does nothing to achieve a diverse recreation spectrum on the forest It does nothing to achieve a diversity of land base in terms of development Prescription 3 allows roads and development as though that is the attraction to a backcountry area The plan states clearly of the supposed 720,000 acres of unroaded lands none of them are protected from mineral exploration or development So even that figures is circumspect At least the plan states it "up front"---"Specific objectives of alternative 11 include B) not constraining the model with regard to nondevelopment type of prescriptions" The only problem is the plan then sets out to attempt to convince the public that the forest is making at least a small effort to provide an unroaded land base There are two options---drop prescription 3 and tell the public the truth that the plan will allow development of every acre of

- 277

274. Closures based upon land management prescriptions are listed in table IV-2. This includes Prescriptions 3A, 3B, 10A, and portions of 9F. The 108,500 acres listed on page II-96 represent total acres within the semi-primitive non-motorized recreation classification of the recreation opportunity spectrum. Since public involvement and refinement of boundaries, this figure is closer to 177,000 acres, and the correction has been made on page II-96. It should be pointed out that all semi-primitive non-motorized recreation areas do not fall within Prescriptions 3A and 3B.

275. Approximately 177,000 acres will be closed to ORV use. The figure does not include the wildlife winter range, which is a seasonal closure. The figure does include snowmobile use. This represents 12 and 1/2% of the Forest land base. Presently, there are virtually no permanent area closures on the Forest.

276. Prescription 3A is established for non-motorized recreation - not wilderness. The areas are still managed for multiple-use. However, to be consistent with the prescription, project activities, such as timber sales, will be very limited during the plan period. Project activities will not occur under Prescription 3B - only mineral activity will be allowed with no surface occupancy. If Congress had wanted the Fishlake closed or withdrawn from all land development activities, it would have done so. There is no mandate to manage in the manner you describe.

277. As discussed in the previous comment, semi-primitive non-motorized recreation does not equate with wilderness. Treatment of these areas in the plan is proper. The closure of some 177,000 acres to public motorized use is not ignoring the limited demand for non-motorized recreation in this area. The Fishlake National Forest will not consider wilderness in this iteration of the Forest Plan.

forest land on the Fishlake. Of course, the other option is to provide the diversity of development and nondevelopment lands and recreational uses by actually restricting areas of semiprimitive nonmotorized use to surface disturbing activities which require motorized use. If you need to do a wildlife project do it the way it should be done in that kind of environment--by foot or on horseback. Don't forget the Forest Service used to actually ride the range. But in all seriousness the purpose of planning is to provide management consistent with what is on the ground and provide a diversity of uses. There is no motorized closure, regardless of what a mythical plan and statement of objectives says, if the particular piece of terrain is open to oil field development, hardrock mineral development, timber harvesting or grazing with access by vehicles. It is without common sense. It is without sensitivity to meeting public issues and concerns. It is without professional recognition of planning regulations and planning intent.

Thus our suggestions follow the above comment in these specific areas. First, we would suggest a wilderness and semiprimitive nonmotorized user demand table. Second, we suggest placing all of the existing prescription 3 units into a true semiprimitive nonmotorized category which restricts the access to nonmotorized means and prohibits surface disturbance which would conflict with the intent of the primitive type resource allocation and management. I am very familiar with the ROS and the guidelines with that process with respect to forest planning, in particular. It is a legitimate use of the ROS category to do as we suggest. Beyond that it meets the concerns of the ground and the public interests on the Fishlake. It has no impact on the objectives of the plan for the most part and clearly has no impact on social variables the plan highlights. It will minimize environmental impacts, aide wildlife habitat and restrict worthless (in the figurative sense of marginal trees and sites and economics ) timber harvesting in future decades.

In particular, we would suggest the plan incorporate an unroaded benchmark. This has been done in other plans.

278 We also suggest the new prescription 3 areas include all of the Tushars identified in "RARE III" as well as all of Thousand Lake Mt., Wayne Wonderland, Beehive Peak, Pahvant Mts., Fishlake Mt., Mt. Marvine and the Canyon Mts. All of these areas have outstanding primitive values and would not alter the objectives of management in the plan or in each area. They were regarded quite highly in the "RARE III" writeups. All have well known values. All of the acreage in these areas would compliment other prescription 3 areas in the plan and other prescriptions which restrict or prohibit motorized use.

Without such a designation it just simply appears as no area on the forest will, in fact, be protected. Rather than solving conflicts the plan creates them. Rather than recognizing unroaded lands provide wildlife refuge, old growth,

278. Portions of all the areas mentioned are included in Prescription 3. The boundaries of the management areas were based upon a consideration of all resources on an equal basis. The most appropriate prescription was then applied to the land. The suggestion that all areas on which non-motorized use could be applied be set aside and that the remainder of the Forest be considered for other uses is not valid.

diversity in allocation and management, recreation opportunities, economic efficiency, stable soils, water quality and a place to get at least three miles from a road on the Fishlake, the plan ignores these issues. It is a forest with soil stability problems and a lot of roads. We simply don't see the logic in the plan not to maximize a no-development unroaded prescription. The plan has a long way to go to justify the extensive potential development allowed by its objectives and assumptions.

## Timber

Though we have been told a number of times by the forest planner and other Fishlake National Forest staff not to worry about the timber section in the plan, because timber is such an unimportant resource on the forest, we must reject such advice. The simple matter of fact is the Fishlake plan has fallen in what is becoming a standard, unimaginative trap with respect to forest planning--increase timber harvests regardless of demand, costs and the data showing harvests need not or should not be increased. Is it any wonder why timber harvesting on the National Forests has become a major public issue again? Literally, it is denegrating the quality of every plan

And so be it on the Fishlake

The plan correctly shows and concedes timber harvests are both small, inconsequential and very inefficient from an economic standpoint. This despite the fact the forest is heavily roaded (no spot on the Fishlake is more than three miles from a road) and, according to the plan, only 2,000 acres of "potential wilderness" will be developed by timber harvesting in the first decade

279

The plan also shows timber harvesting increasing by a whopping 176% after the first decade. In part the plan implies this is necessary because timber demand is going up slowly. Indeed, it is! In fact, the evidence on the Fishlake is that demand is going down according to the forest plan itself. Beyond that this proposed increase in demand is based on information in the AMS which notes demand is slowly increasing. It does not take a statistician, mathematician or forester, for that matter, to look at the referenced page 5 of the AMS and see there is no justification for the increased demand projections. But even accepting the very simple demand line in the AMS we see the demand will be at 4.4 mmbf in the year 2025 which is considerably less than the proposed 8.3 mmbf proposed for sale in the plan.

280

Just given this information it is obvious the timber program is not even consistent with the information in the plan. In fact, holding harvests at 3 mmbf isn't consistent with the demand for Fishlake timber over the last 29 years--1.7 mmbf, not 3 mmbf. How one can project even a demand in 40 years of 4.4 mmbf is questionable. 8.3 mmbf is absurd!

There is also no indication of where the increased timber will come from in the second decade. The plan assures us the biological yield is much higher than the ASO. However, the plan fails to discuss the fact that most of the timber on the Fishlake is within discontinuous small stands of timber. The only important species on the forest is ponderosa pine and that is the species least represented on the forest. Thus the question arises--where is this increased timber coming from? From the AMS it is obvious for the first four decades the

281

279.

Timber sales during the first decade will not "develop" 2000 acres of potential wilderness. Part of one sale will occupy a portion of a 3A management area. Most other sales are in areas where timber activities have occurred in the past.

280.

The Forest Plan calls for a timber program which is a continuation of the current level of production. The volumes listed in the out-decades represent a potential program which could be achieved under the alternative direction. Before such a program could be implemented, a new plan would be completed, and the impacts of the program would be evaluated. Listing possible out-decade outputs in the plan has caused much confusion on the part of the reader. For this reason, these outputs are not listed in the final plan. At the present time, all timber sales are in the vicinity of existing roads. Most road building associated with timber sales will be for roads within the sale area. Access roads are usually less than one mile long.

281.

We do not agree with your comment that ponderosa pine is the only important commercial species on the Forest. The major conifer species on the Forest is Englemann spruce. The majority of future timber volume will come from spruce-fir stands and only minor percentages of the volume will come from ponderosa pine or Douglas fir.

costs of timber are greater than any benefits. This does imply as timber becomes scarce on already roaded lands the cost of accessing timber, making it even more marginal, becomes far greater because unroaded areas have to be roaded. At the present time how much timber comes from unroaded areas? How does this figure change from the second decade on?

As unroaded areas must be roaded, environmental impacts increase, as do impacts on wildlife populations that very likely use unroaded areas as refuge and cover. Thus it is obvious the EIS understates the consequences of timber harvesting on other forest values as "pristine" and areas with a lower threshold to development are timbered and roaded.

We also have a substantial concern with the lands identified as unsuitable. In fact, they aren't actually unsuitable, contrary to statute and regulation. For example, timber harvesting can occur on unsuitable lands for salvage and sanitation harvesting, increasing livestock forage, "improving" scenic vistas, harvesting fuelwood or constructing of roads. Contrary to the forest plan direction (IV-31) "timber management activities" are not to be carried out on unsuitable lands. Why does the Fishlake deviate from this policy? What sort of "timber management activities" are need to implement livestock forage production, scenic vistas or road building?

Also, this plan does not show us where the tentatively suitable lands are? Or why the difference between the 366,635 acres of lands identified as tentatively suitable and the 80,000 acres of suitable lands identified as suitable ( see for example page IV-36, EIS, III-44, EIS). We would suggest a map showing either the suitable timber land base or the unsuitable timber land base. Why wasn't one included? Few plans produced so far have failed to provide such a map.

The plan is not clear with respect to whether lands harboring potentially harvestable aspen (236,000 acres) have been placed in the unsuitable category. Are aspen stands in the unsuitable category? The plan is clear that aspen is not included in the ASO levels ( except for the 300,000 b.f. ). On the other hand the plan is unclear as to how aspen will be handled if a market evolves within this decade. We would like clarification on this point since this would be a significant new action creating a series of new impacts not accounted for in this plan.

The EIS states fuel loading and "risk of timber loss" will be highest in alternatives with lower harvests. However, the EIS fails to document such a statement and fails to show how much more of a risk. Because much of the forest is not timbered or in discontinuous stands, fire hazard is not great. Intense localized fires may be a reality, but large catastrophic fires are not likely according to the AMS. The AMS also notes fire type vegetation is limited

282. During the first decade, the time period covered by the plan, only about twenty-five percent of the timber will come from areas without roads. Obviously, at the end of a full rotation, all suitable forest lands on the Forest will have been harvested.

283. The Forest is not deviating from the policy of no timber management on unsuitable lands. Timber stands in unsuitable areas will not be managed for timber production. The activities listed involve salvage, removal of dead fuelwood, and enhancement of other resources - not timber management.

284. Tentatively suitable lands are those that pass the test of legal, physical, and biologic suitability. They are the lands that can be considered for timber harvest in any alternative. Lands found unsuitable at this point will remain so through all alternatives. Among the alternatives, this pool of tentatively suitable lands is further reduced because of economic reasons or because harvest of some areas is not compatible with the intent of the alternative.

The maps of tentatively suitable and suitable acres are working documents available at the Supervisor's office. In the interest of economy we decided to publish only final maps that show where an action may or may not take place.

285. Aspen stands, in general, were not classified as unsuitable. About 12,000 acres are listed unsuitable in Appendix B on the proposed Land and Resource Plan. If a market for aspen evolves during the decade, an amendment to the plan will be required to consider a substantial increase in harvest levels.

286. Fuel loading is greatest where harvest levels are low. If less timber is removed through harvest, more mortality will occur which will contribute to fuel loading. Although, it is true that much of the Forest is characterized by small isolated timber stands, some rather large stands of spruce-fir do occur on each Ranger District.

Intense fires are a real possibility in these areas, and fuel loading contributes to difficulty of control - regardless of the effectiveness of the fire organization. Because of the limited acreage of suitable conifer timber, it is essential that these areas be protected from fire. The fire management plan does not allow for prescription fire in high value timber stands.

and fire breaks are frequent due to the natural vegetation patterns. Thus the EIS overstates the fuel loading in that low timber harvest levels will not increase fuel loading. Our comments on fire management will address this in more detail. However, we support an aggressive fire management program as outlined in the forest plan and would like to see how the good fire program outlined meshes with the fuel loading statement. There is no connection and, in fact, the fuel loading issue severely denegrates the logic behind the fire program.

287 Another serious concern revolves around the question of diversity. The EIS has the audacity to state the alternatives with moderate increases in harvesting will bring about more diversity. This is nonsense. I'm tired of the Forest Service trying to fool the public. By regulating the conifer timber type or the aspen type your intent is to regulate the forest. This means producing even aged stands. The plan simply fails to truthfully state the intent of timber harvesting--it is not to produce a forest that resembles a natural growth patterns. It is to produce a forest that regulates and standardizes growth patterns and aged structures from 80-120 years ( which coincides with the highest disease and insect out breaks )

The plan looks at diversity only from the perspective of a timber sale or very selective timber management plan. That is not the intent of the NFMA or the guiding regulations. To call for regulation of the forest types and then tell the public the forest is being diversified is nonsense and deceptive. And on a forest like the Fishlake it is even more ridiculous and lends suspicion to every judgment in the plan. To quote the plan, "The diversity of wildlife reflects the wide range of climatic and vegetation types on the forest." It is a forest of piñon and juniper, oak, aspen, spruce/fir and alpine as well as numerous grassland types. Every vegetation type is discontinuous--even aspen which is by far the most continuous stand of timber.

When looking at diversity the requirement is to look at the entire forest--that is the purpose of a forest plan. The Fishlake is one of the most diverse in Utah. Literally it is a mosaic of flora, climate and topography with no land type in the majority. When you look at a small timber sale you may be able to argue diversity is minimal. However, that is diversity from a sawyer's perspective, not from the perspective of a professional land manager and the requirements of NFMA.

The preferred alternative (or other alternatives with increased timber harvesting ) states horizontal diversity( spatial ), vertical diversity and openings will be enhanced and adequately maintained with increased harvesting. That assumes that kind of diversity is now lacking. We would like to see the documentation of such an assumption? How much "diversity" will be increased? What kind of diversity will be increased? How will it be

287. Although it is true that the Forest is diverse in terms of species composition, it is not true in terms of age class distribution. Most aspen and spruce stands are mature to overmature. This is not an assumption; timber inventory records bear this out for the conifer types while observations by wildlife biologists indicate the problem is most severe in aspen stands.

increased? Will the alternatives with lower harvests or maintenance of existing harvests see a reduction of diversity? If so, how much?

288 This actually leads to an interesting question. The preferred alternative doesn't raise harvests for ten years. Will the forest suffer the proposed lack of diversity during this decade? Given the statements in the plan about the lack of diversity and need for increasing diversity through harvesting, isn't a conflict inherent if this decade doesn't dramatically increase timber harvests? I think not and I think this whole issue shows up as unnecessary.

289 The same holds true for pests in the forests of the Fishlake. The AMS and preferred alternative management situation discussion point out pest infestations are small and pest populations are largely restricted due to the discontinuous stands of timber. The plan maintains higher harvests will reduce pest infestations, however. By how much? Will the "saved" volume actually be utilized? By regulating the timber stand you are likely creating a more constant flow of perfect aged and size hosts. Again, this issue plays no role in this kind of forest.

290 Of the 11 alternatives only one reduces timber harvesting from the current level over the life of the plan. Of course, this is a 25% reduced budget alternative. Remarkably enough even the *non-market* alternative increases timber by 116% after the first decade! That is hardly representative of a non-market approach to forest management. The point is the plan is completely inadequate with respect to alternative array as required by statute and regulation. A diversity of management approaches to timber resource allocation and management is non-existent and will jeopardize the plan. Alternatives with different ways to approach timber management with various outputs above and below the current should be part of the plan. As it is the one alternative with a non-market approach produces a whopping increase in timber management.

291 And finally, the impacts discussion on the environment are inadequate. There is no discussion of road impacts on elk. There is no discussion of harvesting impacts and the changes following harvesting of not only big game but species such as mt. lion, black bear (particularly with respect to the aspen component which is a critical element of quality black bear habitat) or northern flying squirrel. For example, it is estimated some habitat will be lost for the squirrel due to harvesting. There is no discussion of alternative habitat for this or other species. There is no discussion of timing and spacing of harvesting. There is no discussion of thermal cover, hiding cover or escape areas for particular geographical areas. We simply reject the determination that the snag policy for wildlife management resulting from timber management is to be applied to unproductive stands where timber harvesting will not occur. This is simply ridiculous and counter to policy. In fact, the only

288. The timber program will have the same effect on diversity as it has in recent years. That is, diversity will be increased.

289. Although, the Forest has had no catastrophic insect infestations in recent years, problems have occurred recently in both the ponderosa and spruce-fir types on the Beaver Ranger District. In the ponderosa type, the mountain pine beetle infestation was halted through salvage of infested trees and thinning of the residual stands. The infestation was a threat to a campground and to a private summer home area.

290. The EIS presents a broad array of alternatives.

291. The limited roading (approximately 124 acres) which will occur during the ten year period will not have a significant impact to elk or other wildlife; nor will the 2000 acres of land occupied by timber sales over the decade. Since only 2000 acres of the suitable timber land (80,000 acres) are being harvested in the decade, it is not felt that the program will have significant impacts on any of the other resources. However, site specific analysis for each sale will determine effects on a local basis.

- place and reason for a snag policy is within timber management areas. To decide it won't be enforced essentially on timbered lands makes the entire policy moot.
292. There is no discussion of loss of semiprimitive nonmotorized recreation opportunities.
- In summary our support for the direction of this plan is very limited due to the timber program. It is following a tradition of the Forest Service and these forest plans that timber is the most important resource. It doesn't do any good to attempt to tell the public that timber on a particular forest like the Fishlake is not very important and then make it the most important allocation in the plan. It, as usual, covers the most pages and has the most detailed discussions. It is the only resource on the forest that radically changes from the past management on the forest. Thus it radically changes other resource issues such as wildlife and recreation.
- 293.
294. And ironically there is no reason--not a shred of evidence--to justify changing the program from the current program. Nothing but timber absolutism and supremacy. Our only support can follow the lines of the current program with no harvesting in any unroaded areas and all harvests first passing the test of no impact on wildlife populations. The reasons are obvious and clearly stated above. The discussion on PNV, PVC, PVB and costs and benefits of the timber program (Appendix B and the AMS) clearly show the more money spent on the timber program the less money going to recreation and wildlife--resources both in need of attention. For example, no alternative meets recreation needs of the forest. And clearly the forest doesn't even have a solid idea of what wildlife is on the forest. It is a forest still suffering from flooding and soil erosion problems. It is a forest that is as roaded as any in Utah. And the increased timber harvesting is not needed from an administrative perspective, from a public concern and issue perspective or from a biological or silvicultural perspective.
295. Throughout the document the forest talks of harvesting on productive sites. What is defined as a productive site? What would the annual harvest be if timber sales, even at a 4% discount, had to have a positive cash flow or had to show the costs of growing the second stand of trees were less than or equal to the discounted benefits of the second growth?
292. The discussion you question is located on pages IV-4 and IV-5, and the acres of semi-primitive non-motorized recreation by alternative is shown in table II-27 of the EIS.
293. The Forest has offered 3MMBF annually for several years. True, all this volume has not been purchased, and recent annual harvests have been below this level. However, the 3MMBF is considered a current program without the effect of the depressed market conditions presently surrounding the timber industry.
294. The plan does not call for an increase in timber harvest. The three million board feet is the allowable sale quantity which is the maximum average annual harvest for the decade. If demand is less, less will be sold. At the end of the first decade we will revise the plan and see if timber harvest should be expanded.
295. Productive sites referred to are those capable of producing crops of industrial wood. This definition is similar to productive forest lands which are defined in Appendix C (Glossary) of the plan.
- "Annual harvest" (long term sustained yield) with the conditions you ask about on the bottom of page 12 has not been calculated.

## Range

We have several concerns with the range portion of the plan and EIS. There is inadequate information about this resource and the impacts of livestock grazing on other resources. The most serious problem in the entire plan/EIS is the primacy given to range over wildlife, watershed, recreation and other resource. Clearly, the plan admits overobligation but does nothing to correct this problem.

Nowhere in the EIS is there any indication of the actual current grazing capacity on the Fishlake National Forest. This discussion is required by the memo (March 29, 1985) for Range Alternatives from the Director of Land Management Planning. What is the relationship between permitted use, actual use and current and potential capacity? There are no figures given for any of these other than the current obligated 136,600 AUMs. It is impossible to determine what condition the range is in without this information. There is no hard data, let alone estimates for the range conditions on the forest. What acreage is in good condition? How much of the riparian zone on the forest has been reduced to poor condition? Consistently, we catch glimpses of the problems of overgrazing, yet we are never told the magnitude of the problem or if one, in fact, exists. We are told demand exceeds capacity without learning what the demand or the capacity is. We are told that the range is overobligated (page II-67) but we have no idea how much.

The array of alternatives is virtually nonexistent. Every single alternative allocates more forage to livestock than wildlife. In fact, on the wildlife alternative, 70% of the spring range (wildlife winter range) forage is allocated to livestock. The other alternatives have about 90% of the spring range allocated to livestock. What kind of alternative array is that?

A serious problem with the range analysis is the reliance on range improvements to keep the range in satisfactory condition. The plan/EIS makes it clear (see page II-67, EIS) increased range maintenance and restoration is needed to keep up with range obligation. It is obvious the Fishlake is being overgrazed and only expensive seedings, channings and other vegetation manipulation projects and range improvements can keep the number of livestock on the forest. This bandaid approach to range management is not in the best interest of the public, other resources or even the livestock permittees themselves.

The attempt by the Forest Service to justify the current situation is weak at best. The EIS admits without permittee contributions, AUMs need to be decreased. However, the suggestions for permittee contributions do not in any way increase the amount of forage on the ground. Reconstruction of range improvements (fences, watering areas, etc.) only increases the efficiency of livestock distribution. It does not add extra forage to the

296. Grazing outputs for various alternatives are given in Table II-22A of the DEIS. In terms of over obligation, there were three allotments of primary concern in 1984. In 1984 one of these allotments had a 30% reduction implemented that will occur over a 2-year period. Another allotment will have reductions in place during the 1986 season. The third allotment will have reductions in either 1986 or 1987, depending on forage availability on recently treated areas where excess forage could exist. At that point, range conditions can be maintained or improved throughout the Forest.

There is no forage allocation as such to livestock or wildlife. It is impossible to determine exactly how much use will be made in any given area by big game because of their mobility. Comparisons are made here primarily to show how alternatives differ. However, there appears to be adequate forage available to meet wildlife needs under all alternatives. Thousands of acres are used exclusively by wildlife with little if any livestock use. Winter ranges are most critical.

The range improvement projects are a benefit to big game as well as livestock. There are benefits in terms of improvement in habitat diversity and forage availability. In addition, fencing and water developments do provide better livestock distribution and more uniform forage utilization. The water developments are also a great benefit to wildlife.

Any time there is use of a resource by more than one type of animal, there will be impacts. Eagles may eat prairie dogs. Coyotes often take a toll on sage grouse. Lions and bears kill sheep. Still, the Forest posture is to maintain a multiple-use perspective.

The monitoring section in the plan covers management indicator species. Big game, fish, threatened plants, nongame animal species and macroinvertebrates are included.

In terms of predator control, the Forest has a cooperative control program with the US Fish & Wildlife Service.

The impacts of livestock grazing on fish are covered for each alternative on pages IV-24-26 of the DEIS.

296 ground Abandonment of marginal range improvements, in the case of  
cont . vegetation treatments actually decreases albeit slightly, the amount of  
forage available. Changes in the allotment management system does not  
increase forage. Using grazing systems when reductions are called for  
does more damage than good. The Forest Service is enamored with grazing  
systems (rest rotation by Gus Hormay) which only better utilize, when  
suited to the particular range, the forage resource and can improve the  
condition. These changes occur slowly. However, many university  
researchers have pointed out this flaw in federal range management. It is  
convenient to tell a permittee we need to go to a grazing system to mask  
the real problem or over allocation (see EIS, page IV-29)

The analysis of impacts to other resources from domestic livestock  
grazing is inadequate to meet the requirements of NEPA, NFMA and the  
March 29, 1985 planning memo governing grazing. There is absolutely no  
mention of the impacts from grazing to many wildlife species such as  
black bear, mountain lion, sage grouse (many impacts occur because of  
range manipulation) or even the threatened Utah Prairie Dog. Many wildlife  
species, particularly predators, are both directly and indirectly affected  
by domestic grazing. Habitat is altered and many species are hunted and  
killed for very dubious reasons of livestock predation. Again, there is no  
analysis of the numbers or animals taken for "predator control" reasons.  
Are we to assume the Fishlake National Forest has no cooperative program  
with the USFWS to "control" predators?

There is little analysis in the plan and EIS concerning impacts to  
management indicator species. There is no mention about social  
interaction of livestock and elk. There is virtually no analysis of other  
management indicator species other than big game (see page IV-30, EIS).  
Clearly this is not what is expected or required of the planning process.

The impacts to riparian areas are poorly analyzed and misleading. What  
will be the result of livestock grazing, under the various alternatives, on  
fish (Bonneville Cutthroat Trout) and other riparian management  
indicator species? Fences are mentioned as the means to protect riparian  
areas yet we are told in the appendices that the only streams to be fenced  
are Sevenmile Creek, Salina Creek and Manning Creek. In addition, the  
same locations and mileage for the first two of these creeks are  
mentioned for more than one year. The small mileage fenced does not begin  
to compare with the mileage of streams (700) on the Fishlake. Are the  
other streams fenced from livestock and only these three need protection?  
Are other streams slated for fencing? The EIS mentions innovative  
grazing systems as a way to eliminate grazing pressure on riparian areas  
(page IV-30). What are these innovative systems? Studies done in Oregon  
show that anything short of fencing does not remove cattle from the  
riparian areas. They will congregate, as they have done for years, in the  
riparian zones.

296 In addition to the streams mentioned for protecting riparian areas,  
cont. portions of Fish Creek, Pine Creek, Birch Creek, and Corn Creek are  
scheduled for fencing during the first decade (see LMP, Appendix D).  
Salina Creek and Sevenmile Creek are scheduled to be fenced over a 2  
to 4 year period. The locations given are only to township which may  
include 6 to 10 miles of the same stream. The locations to be fenced  
each year are not identical. To fence all 700 miles of perennial  
streams on the Forest would cost over \$7,000,000 - equivalent to about  
3 years of the total Forest budget. Even if we devoted our entire  
wildlife habitat improvement budget proposed in the LMP to stream  
fencing, it would take over 20 years to fence every mile of stream on  
the Forest. Since there are other wildlife habitat needs on the  
Forest, we are scheduling the highest priority streams first and will  
continue the fencing program in future decades.

297 The economics of grazing in the plan are flawed. Even they show the losing nature of grazing. According to the plan/EIS (appendix B) grazing is worth \$11.88 per AUM. Page 106 of the same appendix notes that costs associated with grazing are \$12 per AUM. This amounts to a net loss of over \$15,000 per year. Clearly there is no positive PNV from the Fishlake's range program. In fact, the loss is much greater. The \$11.88 value per AUM of livestock is greatly exaggerated according to the USFS's own data. The 1985 Grazing Fee Evaluation Report lists the appraised value of an AUM for the area encompassed by the Fishlake as \$5.31 in a 1985 appraisal. Since the Fishlake uses 1982 dollars, the cost per AUM would be more. Even using this disparity, we arrive at a loss of over \$893,000 per year from the range program. This amount could even be greater when factoring the true costs of all the proposed range improvements. Clearly, grazing on the Fishlake National Forest is a losing proposition.

298 The grazing issue on the Fishlake is perhaps the worst of all. If the utilization figures in the Standards and Guidelines are followed, which are for the most part fairly good, the actual numbers of AUMs on the forest will probably be greatly reduced. The Fishlake must come up with a proper plan that is consistent and analyzes the actual impacts.

297. You are correct in pointing out the error in the cost figure per AUM. Using the figure in the Draft EIS there could never be any net benefit from livestock grazing. This number was incorrectly computed. The correct cost number is \$6.24 for the first decade. By way of comparison, figures for actual use for the past two grazing seasons have been \$4.87 and \$4.31. The figure of \$11.88 is the true cost to the permittee. The \$5.31 is one formula for payment to the U.S. after subtracting costs for improvements constructed by the permittee.

298. It is the standards and guidelines that will dictate the outputs; not the outputs that will dictate the standards and guidelines.

## Minerals

299 This section of the plan shows both promise and failure. First, we are particularly pleased with the availability of mineral development by alternative as shown in Table IV-24 and Table IV-25. However, we would like to see the map legend which goes with the tables. Obviously it exists and we request that map be part of the plan as it would show geologic potential and access restrictions per alternative on the forest. This is a very important concept.

We read the plan in this instance as stating when leases expire, the new leases which could be acquired will have restrictions placed on them consistent with the access code. For example, the non-market alternative would show leases with a no surface occupancy on 306,602 acres of the forest--21% of the forest. What we don't understand is why would areas of low geologic potential have a relatively lower percentage of land categorized as no surface occupancy than similar areas of medium potential? It seems that areas of low potential should be "easy" to place in the no surface occupancy category. We say easy because from a planning standpoint it only makes sense to be proactive to minerals rather than reactive. To prevent unnecessary conflicts on the Fishlake, a forest (according to the plan) of no oil or natural gas discoveries of any kind so far, it would be professionally acceptable and "land-wise" to prevent the potential conflict where it is least likely to occur. It sounds strange, put in those terms, but it is, from a planning perspective, where to start.

300 Under alternative 4 only 15.4% of the low geologic potential is rated as no surface occupancy. Why?

Alternative 11 represents our concerns again. The alternative provides a no surface occupancy category on a mere 5% of the forest. That seems balanced! Why such a limited no surface occupancy for oil and gas? At the same time 56% of the forest is under a standard lease stipulation which allows for "reasonable surface damage" and "access unrestricted by any surface resource." There is no justification in the plan for such acreage determination or documentation or disclosure as to how those acres came about or why.

Again from a planning perspective, with 99% of the forest being open to leasing it seems the Fishlake is simply reacting to minerals as though the forest has no control of the surface resource. With this kind of an approach problems won't be solved or alleviated. They will be intensified as the Fishlake refuses to restrict leasing and thus permits oil and gas impacts on the incredibly vast majority of the forest.

For example, is winter wildlife habitat closed to leasing? We already know

299. Mineral constraints are the result of the prescription assignment, and are primarily associated with Prescriptions 3B and 10A. These areas are shown on the alternative maps. The maps showing mineral potential are part of the planning records, available at the Supervisor's Office in Richfield.

300. No surface occupancy is specified for Prescriptions 3B and 10A. These areas were established without regard for geologic potentials. The concept that an area with apparent low mineral potential should have no surface occupancy is a non sequiter. Just because an area appears to have low potential does not mean there should be access restrictions.

Current regulations state that withdrawals to protect land from mineral leasing shall be requested only when there are sensitive, unique surface resources that cannot be adequately protected under current public laws and Federal regulations. Stipulations for protection of various resources are provided in Appendix H.

301 the semiprimitive nonmotorized category is wide open to motorized access and the major impacts of development. How will the forest maintain semiprimitive nonmotorized conditions with exploratory oil and gas wells or full field development? And why are none of these areas closed to mineral development?

For a forest with only a moderate or low potential why is so much of the forest left open to mineral development? Are the deteriorating riparian areas left open to mineral development?

Alternative arrays are far too limited. As we have already noted the non market alternative selects only 21% of the forest for a no surface occupancy. Not one alternative shows any land as totally closed as though the Forest Service feels it can't close lands to leasing. While the Forest Service can't actually close lands to leasing, the agency has the discretionary ability to recommend to the BLM a no lease category. Starting with Duesing v Udall, 350 F2d 748 (D.C. Cir. 1965) and now with a host of laws and cases the Forest Service is justified in recommending a no lease for areas of special attention. If the plan is stating there are no areas on the forest where oil and gas leasing should not be allowed please state it rather than ignore the issue.

Tragically, forest planning is typified by the cursory determination of impacts due to mineral development on the Fishlake. It is as though somebody on the forest merely and determined a list of potential impacts that could be applied to any forest or BLM district or National Park or private or state land in any state in the United States or outside of this country. There is absolutely nothing specific to the Fishlake. A planner who had never seen the Fishlake, even a map, could have listed the impacts written on IV-46-47.

302 There is no discussion of impacts to the unique and fragile plateau soils on Fishlake Mt. of Mt. Harvins. Or the steep alluvial slopes of Beehive Peak or the Pahvants. Or the rim like plateau country of Wayne Wonderland (the adjacency to a national park didn't even come into play here). Or the fragile soils of Thousand Lake Mt. Or the isolation and scenic beauty of the Tushars. There is no discussion of the high road density of the forest and how oil or gas exploration or development may even increase the road density thus eliminating the potential for any non-roaded environments or experiences. There is no discussion of the wildlife habitat that is so critical to a number of species on portions of the forest. The section is incomplete and likely written without much actual thought about the forest as a piece of very specific ground. There is no analysis of cumulative impacts of oil and gas development, timber harvesting and roaded recreation, for example.

301. The "3" prescriptions are for non-motorized recreation. They are not wilderness. Thus activities not allowed in wilderness are allowed in them.

302. Such analysis is beyond the scope of the Forest Plan since there are no specific applications for such development. If full field development becomes a reasonable possibility, it can be evaluated on a site specific basis at that time. The plan would then be amended or revised accordingly.

The plan assumes oil and gas demand will go up on the forest. The plan also assumes hardrock mineral demand will go up also. In particular it states the likelihood of moly being an important resource on the forest in the Tushars. However, the plan fails to document why it believes demand will increase sufficient to allow open-ended development with minimum restriction on such large portions of the forest. Because the forest is a non-producer with respect to oil and gas and because of the rugged nature of the Tushars and environmental constraints that need to be placed on the Tushars, it is more likely demand will be very limited.

Our concerns with the development of potential hardrock minerals mirror our concerns raised in the above section on oil and gas. The Forest Service has the responsibility to control the surface of the Fishlake. To leave virtually 99% of the forest open to hardrock mineral development is contrary to good management and common sense. It is a reactive management posture and could render the plan useless.

303. Consistent with our recommendations we suggest placing all of the areas we noted falling in the "new" prescription 3 in a no lease and no surface occupancy category possibly dependent upon geologic potential. The reasons are obvious and contained within this comment. Primarily, however, this assures a diversity of mineral management, protection of some unroaded lands, preservation of a true recreation spectrum, enhancement of the environment and minimizing environmental impacts, protection of wildlife habitat, watersheds and riparian zones. It also puts the Fishlake National Forest in the posture of preserving the public's interests, not just the oil and gas companies.

303. We did not do this because we believed this would be Wilderness by another name. Congress is the only body that can designate Wilderness. Congress has reviewed the Wilderness potential of the Forest and made its decision for this planning iteration.