



**FISHLAKE
NATIONAL FOREST**

RECORD OF DECISION

**LAND and RESOURCE
MANAGEMENT PLAN**

INTERMOUNTAIN REGION



FOREST SERVICE

UNITED STATES

DEPARTMENT OF AGRICULTURE



**RECORD OF DECISION
FOR
USDA-FOREST SERVICE**

Final Environmental Impact Statement

**FISHLAKE NATIONAL FOREST
LAND AND RESOURCE MANAGEMENT PLAN**

**Beaver, Garfield, Iron, Juab, Millard,
Piute, Sanpete, Sevier, and Wayne Counties, Utah**

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1. INTRODUCTION:

A. Purpose

This Record of Decision documents approval of the Land and Resource Management Plan (the Plan) for the Fishlake National Forest (the Forest). The area covered by the Plan is in central Utah surrounding the town of Richfield, about 140 airline miles south of Salt Lake City. The Forest contains 1,424,479 acres of National Forest System lands crossing parts of the Wasatch, Awapa, Sevier, and Fishlake Plateaus, as well as all of the Tushar Mountains and Canyon and Pahvant Ranges.

The Plan identifies resource management practices, projected levels of production of goods and services, and locations where various management activities are expected to occur. The Plan also provides broad direction dealing with applications and permits for occupancy and use of National Forest System lands by the public, and for management of impacts from mineral activities on the Forest.

The Final Environmental Impact Statement (FEIS) describes a proposed action (the Plan) and alternatives to the proposed action. It also describes the environment to be affected and discloses the potential environmental consequences of implementing the proposed action and alternatives to the proposed action.

This FEIS and Plan were developed under implementing regulations of the National Environmental Policy Act (NEPA), Council on Environmental Quality, Title 40, Code of Federal Regulations, Parts 1500-1508 (40 CFR 1500-1508); and the National Forest Management Act (NFMA), Title 36, Code of Federal Regulations, Part 219 (36 CFR 219).

In publishing Land and Resource Management Plans, the Forest Service is seeking to satisfy two somewhat different purposes:

1. Compliance with the statutory mandate of the NFMA to develop and maintain a management system so that an "interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences" will be applied to all future decisions, 16 U.S.C. 1604(b), 1604(f), 1604(g), and 1604(c).
2. Linkage with the Forest and Rangeland Renewable Resource Planning Act (RPA) Program and Assessment through current modeling techniques to make forecasts of the outputs which could be produced under the Plan and alternatives to the Plan.

Projections of outputs that could be produced are useful in making comparisons between the alternatives and the Plan. There is no assurance that the projected outputs will actually occur. This is due to limitations of modeling and because on-the-ground conditions,

changes in laws and regulations, national and local economic conditions, and appropriate budget levels all affect actual outputs. As with management direction, the projected outputs can be adjusted through rescheduling of implementation schedules (amendments) or Plan revision. The NFMA has a required revision period of 15 years.

Approval of this Plan marks the turning point from promulgation to implementation of the Plan. This does not mean that all the decisions on issues are final. Public involvement will continue as the Plan is implemented. Specific projects and activities will be examined in light of the Plan's direction and public involvement will be essential.

B. Features of the Plan:

1. Forest Condition

The Plan identifies the desired future condition of the Forest. Goals are presented in Chapter IV of the Plan. Goals are timeless, and they form the principal basis for developing objectives (36 CFR 219.3).

2. Management Objectives

The Plan identifies management objectives necessary for the Forest to achieve its goals. It also describes how resources are to be managed in order to attain these objectives. The objectives are presented in Chapter IV of the Plan. These objectives are depicted as annual levels of goods and services that will ideally be achieved during the 10- to 15-year planning period.

3. Management Requirements

The Plan specifies management requirements that control and govern how activities will be implemented on the Forest. The Plan includes Forest-wide standards and guidelines which are contained in the Forest direction and management area standards and guidelines which are contained in management area prescriptions (Chapter IV). Forest-wide standards and guidelines detail overall management requirements that apply to the entire Forest during Plan implementation. They are applied in addition to management requirements for each management area prescription. The Plan assigns management area prescriptions to specific land areas within the Forest. Mitigation measures to avoid or minimize environmental harm are incorporated as part of management requirements in Forest direction and management area prescriptions in Chapter IV of the Plan. Mitigation is also discussed in Chapter IV of the FEIS. The Plan map displays locations where various management area prescriptions apply.

4. Monitoring and Evaluation

Chapter V of the Plan contains monitoring procedures and evaluation criteria to determine how well objectives and standards and guidelines have been applied and met.

5. Amendment or Revision

The Plan establishes management direction for the next 10 to 15 years, when it will be revised. Short-term opportunities, problems, or conflicts may arise in managing the Forest that were not anticipated in the Plan. The Plan provides a framework for responding to unanticipated needs and can be adjusted, if needed, through rescheduling, admendment or revision.

II. DECISION:

The decision documented here is to approve the Plan which accompanies the Final EIS (referred to as Alternative 11, the proposed action, in the Final EIS) for management of the Fishlake National Forest.

In light of known needs and potential impacts, the Plan sets forth a strategy for managing the Forest; this is not a plan for day-to-day internal operations. It does not address administrative matters such as personnel, fleet equipment, internal organizational changes, and does not emphasize all site-specific design decisions nor all specific resource outputs. Rather, the Plan prescribes general management practices for the Fishlake National Forest. The intention is to achieve multiple-use goals and objectives with optimum economic efficiency. Work will be done in an environmentally sound manner to produce goods, services, and amenities providing long-term public benefits.

This decision is based upon a review of environmental consequences of alternatives disclosed in the final EIS. Particular attention was given to responsiveness of alternatives to public issues and management concerns identified through developmental phases of the Forest Plan, and more recently restated through public comment on the draft EIS and proposed Forest Plan. Public comments and Forest Service responses are included in Chapter VI of the FEIS and discussed in relation to planning questions in the FEIS, Chapter I.

Some of the major provisions of the approved Plan are:

- Permitted livestock grazing will decrease slightly, about 3 percent from current permitted levels. This reduction of about 3,600 AUM's in permitted livestock grazing is necessary to attain at least fair range condition with a stable or upward trend. Range allotment management plans will determine the actual permitted grazing levels. Range standards and guidelines contained in Chapter IV of the Plan will prevail. If range funding called for in the Forest Plan is not

realized and if improvement work is not otherwise accomplished, permitted grazing numbers may be lower than projected. Sustaining present levels of livestock grazing is dependent upon substantial investments to maintain revegetation projects, reconstruct fences and water developments, and continue intensive grazing management systems.

- Wildlife management activities for fisheries improvement projects will be emphasized. This is consistent with increased Plan emphasis on maintenance and improvement of riparian management. Appendix D shows the implementation schedule of fisheries habitat projects necessary to reach 95 percent of optimum.
- Populations of big-game animals will be determined by conditions of the habitat so long as minimum viable populations are maintained.
- Vegetation treatments will be used to achieve goals and objectives for vegetation management. Vegetation treatment is an important tool in multiple-use management of the Forest. On the average, about 3,140 acres of vegetation will be treated each year during the first decade. Treatments will include range forage improvement projects (2,000 acres per year), Forest regeneration cuts (496 acres per year), timber stand improvement (50 acres per year), aspen treatment (120 acres per year), soil and watershed improvement projects (300 acres per year), and reforestation (174 acres per year).
- Existing recreation facilities in developed sites (campgrounds etc.) will be rehabilitated and one new campground at Johnson Valley is planned for construction (Appendix C of the Plan). This will allow the Forest to meet 94 percent of projected demand during the plan period (FEIS, page IV-3).
- Road management will be intensified to prevent damage to resources from existing roads. This will include seasonal road restrictions to prevent rutting during the spring thaw and 13 miles of road betterment per year to upgrade existing roads to a level where they can be maintained (Appendix J of the Plan).
- Travel management on the Forest will be intensified. About 677.4 thousand acres will be closed or restricted for off-road vehicle (ORV) use. Of this amount, about 108.5 thousand acres will be managed to emphasize nonmotorized recreation opportunities, and 135.4 thousand acres will be managed to improve watershed condition (Appendix P of the Plan). These actions are taken to further the goals of bringing off-road vehicle use into harmony with land capability and of maintaining or improving soil productivity and restoring areas with watershed problems.
- Water yield will be increased only slightly as a result of vegetation management and water quality will be maintained (Chapter IV of the FEIS).

- The goal of providing a cost-effective level of fire protection will be realized through implementation of Appendix L of the Plan. This fire action plan will allow cost-efficient monitoring of fires in areas where fires cause insignificant resource damage. Aggressive suppression efforts will be maintained where resources could be damaged, or where life or property would be at risk.
- Programmed timber sales offered will generally not exceed the average annual allowable sale quantity (ASQ) of 3.0 MMBF. This includes 2.7 MMBF of softwood and 0.3 MMBF of aspen. Based upon current demands and anticipated budgets, sale offerings more likely will be less than 3.0 MMBF, at least during the first few years of Plan implementation. In the absence of catastrophic occurrences, the total sale offerings for the Plan period will not exceed the 30.0 MMBF decadal ASQ. Sales of firewood will be about 2,410 thousand cubic feet per year, and Christmas tree sales will remain at the current level of 8 to 10 thousand trees per year.
- Most of the Forest will be available for mineral entry and leasing. The utilities and transportation map shows areas recommended for mineral leasing with no surface occupancy. Other smaller areas such as administrative sites and campgrounds have been withdrawn from mineral entry. Appendix H of the Plan shows standard stipulations for oil and gas leasing, while Plan Appendix O shows the application of the coal unsuitability criteria for known recoverable coal resource areas underlying the Forest.
- The utilities and transportation management map in the pocket of the Plan shows the location of existing utilities and proposed windows. Appendix G of the Plan lists criteria used to designate windows and corridors and applicable restrictions.

Activities, many of which are interdependent, may be affected by the funding levels provided by Congress. The Plan will be implemented through various site-specific projects, such as building a road, developing a campground, or selling timber, which are detailed in Appendices A, and C through Q. If funding is changed in any given year, projects scheduled for that year may be altered or rescheduled. However, goals, objectives, and standards and guidelines described in the Plan will not change unless the Plan is revised or amended. If funding changes significantly over several years in a way that would alter basic management objectives, the Plan itself may have to be amended [36 CFR 219.10(e) (1982)]. NOTE: significance will be determined in the context of particular circumstances.

During implementation, when various projects are designed, more site-specific analysis may be required. These analyses may take the form of Environmental Assessments [40 CFR 1508.9 (1982)], Environmental Impact Statements [40 CFR 1508.11 (1982)], or categorical exclusions [40 CFR 1508.4 (1982)]. The Forest Supervisor may amend the Plan in accordance with 36 CFR 219.10(f). Any resulting documents will be tiered to the FEIS, pursuant to 40 CFR 1508.28 (1982).

III. ALTERNATIVES

Eleven management alternatives were developed in response to the requirements of NEPA, NFMA, public input, and roadless resource analysis. The alternatives are presented in detail in Chapter II of the FEIS. They are:

-- Alternative 1 (FY 1982 Budget and Concern Direction)

This alternative would continue the current budget level for the Forest and the current management direction using goals and objectives from existing plans. Most outputs would remain at current levels; however, outputs in range and developed recreation would decrease, since replacement of current capital investments would not keep up with deterioration.

-- Alternative 2 (Market Opportunities)

This alternative would emphasize market opportunities and values, and would provide a high level of commodity outputs. Noncommodity outputs would be produced at an acceptable level. Wood products, livestock production, and developed recreation would be emphasized. Dispersed recreation, wildlife, and watershed management would increase slightly above current levels.

-- Alternative 3 (Ten Percent Reduced Budget)

This alternative would emphasize market opportunities and values and would produce a moderate level of commodity outputs within constrained budget limitations. Noncommodity outputs would be produced at an acceptable, but reduced, level. Wood products, livestock production, and mineral development would be emphasized.

-- Alternative 4 (Nonmarket Opportunities)

This alternative would emphasize amenity values by stressing water quality, fish and wildlife resources, and dispersed recreation. One of the major factors of the alternative is the placing of 20 percent of the Forest in primitive and semiprimitive nonmotorized recreation opportunity classes. Management of other resources would be at economically and environmentally feasible levels consistent with emphasis on amenity values.

-- Alternative 5 (1980 RPA Program)

This alternative would attempt to meet the Fishlake portion of Regional goals described in the Intermountain Regional Guide. This program would be attained by managing all resources at a moderate to high level of outputs. The condition of several of the resources would be improved through this program.

-- Alternative 6 (Emphasis on Local Issues and Concerns)

This alternative's goal would be to produce a combination of market and nonmarket outputs in response to issues and concerns by human

resource units. This means that some areas of the Forest would emphasize market outputs as in Alternative 2, while other areas would emphasize nonmarket outputs as in Alternative 4. Overall, it would produce a moderate to high level of outputs.

-- Alternative 7 (Twenty-five Percent Reduced Budget)

This alternative would emphasize market opportunities within the constraint of a budget level reduced 25 percent below the fiscal year 1982 level. All outputs would be produced at reduced levels, but those sensitive to budget levels such as timber and range would be significantly reduced. Most noncommodity outputs would decrease or have a lower level of management.

-- Alternative 8 (Current Program - No Action)

This alternative would continue current management direction using goals and objectives from existing Plans. This is the required "no action" alternative that provides a basis for comparison with other alternatives. Existing output levels or trends would be maintained in this alternative, while the budget would be adjusted to meet these requirements.

-- Alternative 9 (Revised Mix)

This alternative would produce a mixture of market and nonmarket outputs in response to issues, concerns, demand, and Forest capabilities. It was constructed from the more desirable aspects of Alternatives 4, 6, and 8, and new programs in range and wildlife. Outputs and activities exceeding demand or expected to exceed demand would be deemphasized to allow emphasis on activities and outputs below demand and still remain within a reasonable budget.

-- Alternative 10 (High Productivity from RPA 1985 Update)

This alternative was designed to meet the high production of some resources. Emphasis would be on timber, range, recreation sites, and minerals management while managing nonmarket outputs such as wildlife and dispersed recreation at economically efficient levels subordinate to the high market emphasis. Visual quality standards and other amenity values would be lowered to produce market outputs at reduced cost.

-- Alternative 11 (Selected Action, Forest Plan)

The proposed action emphasizes a mixture of market and nonmarket opportunities in response to issues, concerns, local demand, and Forest capabilities. This alternative is similar to Alternative 9 except that timber was funded at a slightly higher level to permit more reforestation and stand improvement. Further, some prescription assignments were changed in response to public concerns.

IV. RATIONALE FOR THE SELECTED ALTERNATIVE

No single factor determined the decision. Rather, many factors were considered and weighed. Based upon the consideration of environmental, social and economic factors, the approved Plan sets a course of action that maximizes net public benefits and is consistent with the principles of multiple use and sustain yield.

Significant criteria which formed the basis for decisions in the Plan are described in this section. These criteria relate to many laws and regulations and respond directly to public involvement and to the issues, concerns, and opportunities identified for the Forest.

A. Issues, Concerns, and Opportunities, and Areas of Significant Public Interest:

Issues, concerns, and opportunities (ICO's) identified during the planning process cover a full range of resource and management subjects. Points of view as to what constitutes ICO resolution also were equally diverse. Because of this, ICO's were formulated into questions which allowed each alternative to address each ICO, positively or negatively; with each alternative having specific benefits and costs. Each alternative was compared to the management goals of optimizing net public benefits while providing a continuous flow of goods and services, and maintaining or improving environmental conditions. The proposed action was identified as the management mix that best met these criteria.

Each of the alternatives addressed the ICO's in a slightly different way. The importance and validity of the ICO's guided the planning process. Chapter II of the FEIS is structured to respond to each of the ICO's by alternative (for a detailed description of the ICO's, see Appendix A of EIS).

Management of resources was addressed according to output priorities in each alternative and the resource base available for management consideration.

A major reason for selecting an alternative was based on how well that alternative responds to public issues and management concerns. Since many issues and concerns conflict, it was not possible to address all issues and concerns in a positive manner. Also, resolution of an issue or a concern was perceived differently by different people. The major issues of public concern which were raised between the Draft and Final EIS are included in the discussion below. (For those readers interested in directly reviewing comments on these issues, see the FEIS, Chapter VI).

Several reviewers raised the issue that the plan did not provide adequate habitat for wildlife. Their main concern seemed to be that an overemphasis on livestock would lead to decreased big game habitat. However, they were also concerned about effects on riparian

areas and on non-game animals. Causes of this concern appeared to be projected livestock numbers and acres of prescription 6B. In response to this issue several prescription assignments were changed to protect sensitive wildlife areas. Further, as pointed out in this Record of Decision, management will be for the standards and guidelines contained in the Plan, not for the projected numbers. Implementation of the Plan may result in greater big game numbers than projected if suitable habitat is available.

The second major issue raised was about travel management. This includes management of main travel routes and restrictions on off-road vehicles (ORV's). Many Forest roads are in poor condition leading to erosion and damage of other resources. To meet this concern, the Forest intends to reconstruct and upgrade existing roads to prevent damage, and restrict travel on roads when they are susceptible to damage. Many felt that the travel management portion of the Forest Plan was too restrictive of ORV travel. Others supported the concept of travel restrictions to provide sanctuary and protective areas for big game. Forest management is concerned that the proliferation of wheel tracks is causing unacceptably high erosion which is damaging the basic resources of soil and vegetation. Where possible, modifications of the travel management plan were made to allow over snow machines. However, the need to protect the basic resources and to provide big game resting areas prevented relaxation of travel management standards.

B. Factors used in Evaluating the Selected Alternative

Based upon issues, planning criteria, and constraints, the following factors were relevant to the decision concerning the selected alternative. These are:

1. Management Impacts to Watershed

The Fishlake National Forest was created in the latter portion of the nineteenth century at the request of the citizens living in the valleys surrounding the Forest. Itinerant bands of sheep, were grazing the range to dust bowl conditions. Subsequent rains produced debris floods that devastated communities located at the mouths of mountain watersheds. Reduction of this flood potential and promotion of the soil resource have thus been primary charges of the Fishlake National Forest. Much has been accomplished toward this goal, but much remains to be done. Thus the effects the Plan would have on soils and watershed condition is one of the most important decision criteria.

Effects of alternatives on the soil resource vary, though in all alternatives long-term soil productivity would be maintained. Several attempts were made at devising a factor that truly and accurately represented each alternative's effects on soil erosion and watershed protection. Finally, two key factors were combined to produce an index for comparison between alternatives. These

factors are acres of soil and watershed improvement and soil loss due to management activities such as timber harvest and road construction. These two factors were combined to produce an index expressed as tons of reduced soil loss. The Plan ranked third among the alternatives when this index was used.

In all alternatives, water will meet state water quality standards.

2. Livestock Grazing

From the outset of the planning process Forest personnel were concerned about the grazing issue since grazing is a significant economic factor in local communities, and since the Forest was created to solve overgrazing problems. Comments on the draft FIS and proposed Plan about grazing covered primarily two areas. There was concern that areas of unsatisfactory range condition would not be reduced by the Plan and that grazing use would conflict with other resource uses such as wildlife and recreation.

Since 1943, there has been a 39 percent reduction in the number of animal unit months (AUM's) permitted on the Forest. This trend will probably be continued with implementation of the Plan. One of the goals of the Plan (page IV-4) is to provide livestock grazing consistent with range capacity and other resource uses. To do this, the Forest Plan gives direction to follow proper use guidelines set in the standards and guidelines. Range allotment management plans prepared or updated under the umbrella of the Forest Plan will follow these standards and guidelines. Existing allotment plans will be brought into conformance with the Plan. Allotment plans will specify the grazing system to be used and how coordination directed in the Plan will be carried out.

Permitted numbers on some allotments will probably be reduced to meet the standards and guidelines. The numbers projected in the Plan are for the Forest as a whole, given an assumed funding level for the decade. Funding levels control range outputs since significant amounts of the range are in the sagebrush and pinyon-juniper vegetation types that require periodic treatment to keep them productive for livestock.

All alternatives meet minimum standards of range utilization that will prevent overgrazing. Thus, the significant variation between alternatives was AUM outputs. All alternatives except number 7 produce more AUM's than the plan. While the plan decreases permitted numbers from 137.1 thousand AUM's to 133.5 thousand AUM's, this probably will not cause a real decrease in actual grazing use, which has averaged 132.6 thousand AUM's for the past five years.

The question of conflicts with other resource uses is also addressed here. Potential conflicts in riparian areas are discussed in the factor for fish. Existing data along with linear program modeling for all alternatives showed that there was enough big-game habitat available in the unsuitable range for domestic livestock to meet Regional Guide target assignments. Since all alternatives met the targets there was no distinction that could be used to rank them. Also, it showed that there was no conflict between livestock and big game on a Forest-wide basis. There may be conflicts in local areas, but the Forest has the capacity for both projected livestock and big game numbers.

3. Employment

Effects on employment, lifestyles, and minority groups were considered in selecting the proposed action. At the start of the planning process the Forest's zone of influence was divided into six Human Resource Units (HRU's) described in the Plan. Two of the six HRU's, Fremont and Piute, are highly dependent upon the flow of commodity products from the Forest for their economic viability. While the other HRU's are not so dependent, rapid changes in management of the Forest would have adverse economic impacts on them.

An input-output (I/O) model, IMPLAN, was used to predict changes in employment, income, and population resulting from changes in Forest management activities. Because of uncertainties inherent in the IMPLAN I/O model, only predicted changes in total employment were used in the decision process. The range of predicted change is in the plus or minus 2.8 percent range for total population, income, and employment.

Implementation of the Plan has the potential to contribute to a growing labor force and economic diversity through jobs created in several sectors of the economy. The Forest Plan ranks fifth overall among the eleven alternatives in terms of employment, income, and population induced through forest management activities. Total induced employment ranges from a decrease of 345 to an increase of 94 jobs when Alternative 8 is used as the base. However, Alternative 8 calls for increased funding above current levels. Alternative 1, which is similar to Alternative 8 except that funding is kept at current levels might provide a better comparison. In Alternative 1, total induced employment ranges from a high of plus 168 jobs in Alternative 5 to a low of minus 270 jobs in Alternative 7. The Forest Plan will promote an estimated 53 job increase.

4. Timber

Timber harvest is used on the Fishlake to promote community stability, maintain healthy tree stands, and promote vegetative diversity on the Forest. The allowable sale quantity stated in

the Plan is 30.0 million board feet (MMBF) for the 1st decade (Plan, page IV-8). Actual sales levels will depend on a number of factors, such as demand and funding levels. Thus, the total amount of timber harvested during the decade may be less than 30.0 MMBF, but harvest cannot exceed that amount unless there is a revision or amendment to the Plan, or some form of natural disaster occurs, as defined in 36 CFR 219.27(c)(2). In a given year, more or less than 3.0 MMBF may be harvested, but the decade total will not exceed 30.0 MMBF.

Appendix A of the Plan shows the 10-year timber sale schedule. The proposed cutting methods listed in Appendix A will be used unless stand- and site-specific analysis shows that they conflict with management area direction. When interdisciplinary study shows that management area direction cannot be met with the proposed cutting method, an alternate method will be chosen or the sale will be dropped from the schedule. Both even and uneven age timber harvest systems are called for in the schedule. Cutting methods to be used in conifer timber types include individual tree selection, group selection, shelterwood, and clearcutting. Clearcutting in conifer will be used only where perpetuation of existing stands is undesirable due to insects, disease, stocking, genetic characteristics, etc. In the aspen type, the cutting method will be primarily clearcut. Aspen is ideally suited for even-aged management by clearcutting. It is essential that all stems be cut to promote the best sprouting for regeneration and for wildlife forage. This cutting method also prevents poor quality residual stems from being released and dominating subsequent regeneration.

The Fishlake NF Timber Management Plan, Amendment 4, dated April 4, 1980, provided for an allowable harvest of 23.1 MMBF annually. The reduction in programmed sales volume between the 1980 Timber Management Plan and the Forest Plan is 42 percent for the decade of the Plan. Such a reduction may appear drastic, but the actual cut for the past 5 years has averaged 0.8 MMBF, while that for the past 10 years has averaged 1.7 MMBF. The allowable sale quantity is also below the 6.1 MMBF figure for the maximum present net value benchmark where market values were used, and the 7.1 MMBF figure for the maximum present net benefit benchmark where all outputs had assigned values. However, present demand does not appear to support such harvest levels.

The level and location of harvests in the Plan are the judgment of the Forest Service coupled with results of the analyses of activities needed to meet the goals in the Plan. Appendix A of the Plan shows planned timber sales through 1994.

Below-cost sales are a concern to both the public and National Forest managers. The Forest will continue to address this issue within the implementation and budgeting processes, and through design and scheduling of timber sales. The Forest Service

policy on timber sales requires that timber sales be analyzed to develop cost-effective options and to identify the most cost-efficient alternative. In all sales, the least expensive activity which will meet resource management needs will be used.

Steps are now being taken to reduce costs of the timber sale program on the Forest and they will continue. Based on work force management studies, the Forest has initiated shared services of timber management personnel between Districts and between National Forests. The result has been a higher level of expertise with fewer people. The intensity and techniques of measuring standing trees have been revised to be more commensurate with the value of the product removed. As a result, sales no longer require re-measuring of products after removal. Increased emphasis on pre-sale planning, including economic analysis, results in the elimination of some sales from the sale program and a reduction in miles of roads. Other savings from better sale planning include lower planting, site preparation, and slash disposal costs.

Three alternatives--10, 5, and 2--call for higher timber harvest levels than the Plan. However, these higher levels do not seem reasonable when considered against demand. Thus these higher levels were regarded as being only a slight advantage over the plan. In terms of cost required to prepare this larger sales volume, the higher sales alternatives had a disadvantage.

6. Developed Recreation

Developed recreation is an important resource to the people and the economy of the communities in the vicinity of the Forest. Two types of uses, destination camping and evening picnicking, account for most of the recreation visitor days (RVD's) at the developed sites. Sites in the Fish Lake basin and Beaver Canyon are heavily used by people from out of state and the Wasatch Front.

The Plan does not propose the closure of any recreation sites. One site in Johnson Valley is proposed for construction. Several commenters noted that the Plan would not meet anticipated demand and wanted funding increased so that construction of new sites would match that demand. However, the Plan will meet 94 percent of anticipated demand during the decade. It is after the 1st decade, years 11 through 50, that continuation of the proposed funding level would not produce enough developed recreation sites to meet anticipated demand. Inherent in the projection of demand were optimistic assumptions regarding growth in the energy related sector of the economy which would, in turn, result in a correspondingly large increase in population using the Forest. The difference between the actual population growth and that projected for the period 1981 - 1985 in the draft EIS shows the optimistic nature of this projection.

The Plan ranks fourth behind Alternatives 5, 8, and 6 in terms of planned developed recreation capacity. It has the same planned capacity as Alternatives 2 and 10.

7. Motorized Recreation

Motorized recreation was one of the forms of dispersed recreation considered in reaching a decision. Most of the demand for dispersed recreation is in the motorized recreation opportunity spectrum (ROS) classes. Activities such as hunting, family reunions, and driving for pleasure are motorized dispersed recreation.

While the capacity to meet projected demand for this type of recreation is available Forest-wide, the more popular areas are overused. Thus, the modeling considered the number of RVD's that could be managed rather than the number of RVD's that would occur. The difference between the number of managed RVD's and the anticipated number of RVD's thus gives an inverse index of how well this activity is being managed; or an index of how serious a problem it is expected to cause. The bigger the difference between the number of managed RVD's and actual RVD's, the more problems and resource damage there would be.

During the comment period on the draft EIS, many commenters voiced support for increased road management. This would include such things as seasonal restrictions to prevent rutting during the spring thaw, and the shifting of some maintenance funds to allow roads to be upgraded to the point where they would not be damaged by travel after each rain.

Other commenters objected to having the White Mountain area in Salina Canyon managed for nonmotorized recreation. Since restrictions on the White Mountain area were mainly for watershed protection, the Plan will allow travel in that area on designated routes or by snowmobile. This will protect the watershed and still allow some motorized recreation in the area.

Alternatives 5 and 8 provide for the management of a greater number of RVD's in the roaded natural and semiprimitive motorized ROS classes than the selected alternative (the Plan).

8. Fish

Standing as an oasis in the desert, Fishlake National Forest provides both stream and lake fishing. Residents of the Wasatch Front vacation at Fish Lake because of the fishing and other recreation provided there. Residents of California, Nevada, and southwestern Utah vacation in the canyons of the Tushar Mountains largely because of the fishing. The advent of year-round fishing in Utah has served to increase fishing pressure on waters of the

Forest. In addition to the more common species, the Bonneville cutthroat trout, a sensitive species, is present on the southern end of the Pahvant Range and the Tushar Mountains.

Factors used in projecting pounds of fish that would be provided by each alternative were: adverse impacts to streams and riparian areas from roads and grazing, and beneficial impacts to fisheries from habitat improvement projects planned in the alternative. As with other factors, the pounds of fish for each alternative is a projection based on expected habitat condition. While the amount of available habitat can limit pounds of fish, other factors such as fishing pressure and stocking rate can reduce the actual pounds of fish below the habitat's capability.

The Plan received the highest rating in this factor.

9. Nonmotorized Recreation

This segment of the recreation spectrum constitutes a small, but increasingly important, portion of recreation use of the Forest. While Congress did not designate any wilderness on the Forest in the 1984 Utah Wilderness Act, its language was permissive toward nonmotorized recreation. The House Committee Report on page 16 states:

"In short, this language means that the Forest Service cannot be forced by any individual or group through a lawsuit, administrative appeal, or otherwise to manage lands not recommended for wilderness designation in a 'de facto' wilderness manner. Of course, the Forest Service can, if it determines it appropriate, manage lands in an undeveloped manner, just as it can, if through the land management planning process it determines it appropriate, develop released lands. The emphasis here is that the Forest Service will be able to manage released lands in the manner determined appropriate through the land management planning process."

Some local groups and individuals have objected to the management of Fishlake Mountain for nonmotorized recreation. However, based upon the paragraph quoted above, this is a legitimate management of recreation activities on those lands.

As with dispersed motorized recreation, the projected RVD capacity by alternative is the number that could be managed. It is not the number that will participate in that form of recreation. The difference between the number of RVD's that can be managed and the number of RVD's that occur is a measure of how well the alternative provides for that type of use while protecting the resources and maintaining the environment.

Alternatives 4, 7, 2, 3, 8, and 5 provide for managing more semiprimitive nonmotorized RVD's than the plan.

Using these factors, an evaluation of the advantages among alternatives was conducted. This evaluation followed a fundamental rule of decisionmaking; i.e., decisions should be based on the importance of advantages. Advantages are the positive differences between alternatives. The concept of "differences" is important in that it incorporates the idea that "similarities" should have no effect on the decision--the decisionmaker is indifferent toward alternatives to the extent they are alike, but instead concentrates on the differences between them.

C. Environmentally Preferable Alternative and comparison with the Preferred Alternative

Alternative 4 is considered the environmentally preferable alternative because it calls for elimination of the watershed improvements backlog by the year 2030 while maintaining development activities at moderate levels. Several of the low budget alternatives, such as Alternatives 3 and 7, call for fewer development activities, but they do not provide for any level of watershed restoration. Thus areas with existing erosion problems will continue to erode under these two alternatives. Alternatives 6 and 10 also call for the elimination of the watershed improvements backlog by the year 2030, but they call for a higher level of development activities than 4.

Using the factors described above, the Plan was selected over Alternative 4 because it provides more developed recreation, dispersed motorized recreation, pounds of fish, timber harvest, and jobs in the local economy. The Plan does provide for a moderate program in watershed restoration. Proposed funding levels for watershed restoration in the Plan are lower than in Alternative 4 so the backlog will not be eliminated by the year 2030. However, priority projects will be accomplished as called for in Appendix Q of the Plan. Alternative 11, the Forest Plan, addresses goals, objectives, issues, and concerns better than Alternative 4 and will provide greater net public benefits in the long term.

Potential adverse impacts to the physical and biological components of the environment normally will be mitigated by the management direction shown in Chapter IV of the Plan. Impacts that cannot be avoided are disclosed in Chapter IV of the final EIS.

D. Alternatives with Higher Present Net Value (PNV)

In recent years, the federal government has become increasingly aware of and committed to economic efficiency of federal actions. NFMA regulations reflect the idea that the Forest Service should consider economic efficiency in developing and choosing between Forest Plan alternatives. Economic efficiency, as defined in "The Guidelines for Economic and Social Analysis" (April 20, 1982, Federal Register), is "the usefulness of inputs (costs) to produce outputs (benefits) and effects when all costs and benefits that can be valued are included in

the computation." This definition relates to the total costs and total benefits to society. The regulations specify that "each alternative shall represent to the extent practicable the most cost efficient combination of management prescriptions examined that can meet the objectives established in the alternative" (36 CFR 219.12(f)(8)). A program is said to be cost-efficient if it maximizes present net value (PNV) subject to achieving specified levels of outputs and inputs. Cost efficiency is "the usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring cost efficiency, some outputs, including environmental, economic, or social impacts, are not assigned monetary values but are achieved at specified levels in the least cost manner" (36 CFR 219.3). The Fishlake NF responded to cost efficiency requirements by:

- (1) Maximizing PNV in the FORPLAN model. This provided the levels of priced outputs in the FORPLAN model at an "efficient" point, given the objectives of the alternative.
- (2) Using PNV as one criterion for choosing management activities not incorporated in the FORPLAN model such as campground development, campground maintenance, habitat improvement for threatened and endangered species, but which are part of the Forest's program of work.

In determining the most economically efficient alternative, the Forest Service used an estimate of PNV as one of the factors in the decisionmaking process. Basically, PNV is computed by taking "the difference between the discounted value (benefits) of all outputs to which monetary values or established market prices are assigned and the total discounted costs of managing the planning area" (36 CFR 219.3). As shown below, Alternatives 5, 9, and 4 have a higher PNV than the proposed action. A detailed discussion of cost efficiency and economic efficiency analysis is contained in the final EIS, Appendix B.

Alternative	Present Net Value (Millions of Dollars)
5 1980 RPA Program	371.2
9 Revised Mix	353.7
4 Nonmarket Opportunities	353.3
11 Forest Plan (Proposed Action)	352.9

While Alternative 5 has a PNV that is about 18 million dollars higher than the others, it also has a significantly higher budget, with a corresponding emphasis on commodity products. For example, grazing AUM's are raised from the present 137.1 thousand to 155.1 thousand in the first decade. While there may be demand for this increase in AUM's, it may not be appropriate to increase the dependancy of the local economy. Further, it is not as important to increase AUM output

as it is to maintain it at about current levels. Costs of producing higher levels of timber and grazing in Alternative 5 outweigh the benefits derived. Also higher budgets are not warranted at this time, particularly in light of the administration's goals of cutting the federal deficit and controlling Federal spending.

The difference in PNV between Alternative 9 and the proposed action is approximately \$800,000. This loss in PNV between Alternative 9 and the Plan can be attributed to the spatial location of the management prescription assignments. Both have the same outputs, but it was determined that in several locations of the Forest the management prescription assignments needed to be modified from Alternative 9 to accommodate local conditions and to address overall issues, opportunities, and concerns. For example, the State of Utah requested that sage grouse strutting areas and big game winter range be recognized in the area around Farnsworth reservoir. Consequently, the management prescription for this area was changed from 6B to 5A.

As stated above, the proposed action was selected over Alternative 4, which has a higher PNV of approximately \$600,000. Most of this difference can be attributed to the greater amounts of developed recreation, dispersed motorized recreation, pounds of fish, timber, and jobs it produces. When considering the overall goals and objectives of the Forest Plan, Alternative 11 (the proposed action) more adequately dealt with issues, opportunities, and concerns identified in the Forest planning process than did Alternative 4.

The uncertainty associated with the output and activity estimation is magnified by the uncertainty associated with estimating related economic parameters, rendering the PNV estimate less reliable than the estimates associated with the activities and outputs themselves. Therefore, the Fishlake National Forest used PNV as only one of the factors in evaluating the advantages and disadvantages of each alternative.

Table 1 on the following page displays the Present Net Value (PNV), Environmentally Preferable Alternative (EPA) and preferred alternative.

TABLE 1: COMPARISON OF SELECTED ALTERNATIVE WITH ENVIRONMENTALLY PREFERABLE ALTERNATIVE (EPA) AND HIGHER PRESENT NET VALUE (PNV) ALTERNATIVES

ALTERNATIVES

RESOURCE/BENEFIT	UNIT OF MEASURE	4 PNV3 EPAI	5 PNV1	9 PNV2	11 PREFERRED
TIMBER					
LTSYC*	MMBF/YEAR	6.0	10.1	9.4	9.1
ASQ**	MMBF/YEAR	3.0	7.4	3.0	3.0
Fuelwood Potential	MCF/YEAR	4040	2060	2410	2410
RANGE					
Annual Output	MAUM's/YEAR	134.8	155.1	134.5	133.5
RECREATION					
Developed	MRUD's/YEAR	381.0	521.1	448.7	448.7
Dispersed	MRVD's/YEAR	512.7	733.2	607.0	690.5
WILDLIFE					
User Days	MWFUD's/YEAR	188.2	190.5	188.0	187.9
WATER					
Increased Water Yield	MAc ft.	.032	.190	.177	.177
Present Net Value	MM\$	353.3	371.2	353.7	352.9
Returns to U.S.	M\$	9638.6	9743.9	9630.1	9629.1
Employment***	Jobs	- 10	169	26	53

* Long-term sustained yield capacity

** Allowable sale quantity

*** Change from 1980 (base year) and Alternatives 1 (current direction)

V. MITIGATION AND MONITORING

Management constraints were imposed on the alternatives to ensure long-term productivity of the land and compliance with threshold soil and water requirements. These requirements are standards and guidelines which apply to all management prescriptions within each alternative. The standards and guidelines act as mitigation measures to ensure that sustained yields of renewable resources are maintained.

In the case of the mineral resource, once the resource has been extracted, it is gone except where secondary recovery becomes feasible. Conservation of these resources might be defined as the planned rate of removal. Mitigating measures involved in location, development, and removal of such nonrenewable resources are expressed as occupancy stipulations in mining plans, project level environmental documents, and in management area direction in the Plan.

Maintaining ROS classes, viable populations of wildlife management indicator species, cover/forage ratios, nondeclining even-flow of timber resources, and state water quality standards are all examples of standards and guidelines which act as mitigation measures prescribed in Chapter IV of the Plan.

Each resource has a minimum management requirement level which acts as the base upon which alternative management programs were developed. Management commitments below the minimum management level were not considered as options.

Standards and guidelines will be adopted and enforced in all project level activities. Mitigation measures are discussed in Chapter IV of the Plan for renewable resources. As long-term effects of planned management prescriptions on the various management areas are assessed and new research results and technology become available, some adjustments may be made to update prescribed standards and guidelines.

An aggressive implementation, monitoring, and evaluation program has been outlined in Chapter V of the Plan. The purpose of the program is to facilitate implementation of the Plan in an orderly manner while maintaining environmental safeguards.

Monitoring will help determine if prescriptions are being properly applied to management areas, provide for an evaluation of the appropriateness of the Plan's management direction, and track condition trends of Forest resources. Evaluation data will be used to update resource inventories, fine-tune mitigation measures, and determine the need for amending or revising the Plan. The monitoring plan outlines data sources and monitoring techniques by resource element, establishes frequency of measurements, and details conditions which would initiate further evaluations.

VI. IMPLEMENTATION

The Plan will be implemented 30 days after the Notice of Availability of the Plan, EIS, and Record of Decision appears in the Federal Register. Time needed to bring activities into compliance with the Plan will vary depending on types of projects.

The Forest Supervisor will assure that (1) annual program proposals and projects are consistent with the Plan; (2) program budget proposals and objectives are consistent with management direction specified in the Plan; and (3) implementation is in compliance with the Regional Guide and goals and objectives in 36 CFR 219.10(e), 36 CFR 219.11(d), and 36 CFR 219.27.

Implementation is guided by management requirements contained in Forest goals and objectives, and the standards and guidelines contained in Forest direction and management area prescriptions found in Chapter IV of the Plan. These management requirements were developed through an interdisciplinary effort and contain measures necessary to mitigate or eliminate any long-term adverse effects. Any unavoidable adverse environmental

effects, such as disruptive effects of vegetation manipulation on recreation or livestock grazing, will be temporary and will involve only a small percentage of the Forest at any one time. As can best be determined, all practical mitigation measures have been adopted and are included in Chapter IV of the Plan.

Proposals to use National Forest System lands will be reviewed for consistency with the Plan. Management direction contained in Chapter IV of the Plan will be used to analyze any proposal. Permits, contracts, and other instruments for occupancy and use of the National Forest System lands will be consistent with management direction in Chapter IV. This is required by 16 USC 1604(i) and 36 CFR 219.10(e).

VII. APPEAL RIGHTS

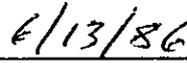
This decision is subject to appeal pursuant to 36 CFR 211.18. Notice of appeal must be in writing and submitted to:

J. S. Tixier, Regional Forester
Intermountain Region
USDA, Forest Service
Federal Building
324 25th Street
Ogden, Utah 84401

Notice of appeal must be submitted within 45 days from the date of this decision. A statement of reasons to support the appeal and request for oral presentation must be filed within the prescribed 45-day period.



J. S. TIXIER
Regional Forester



Date

**END
OF
PHYSICAL
FILE**