

f *Comment* Enhancement, maintenance, and restoration should be practiced on all anadromous fish habitat at 90 percent of the potential Smolt Habitat Capability Index

*Forest Response:* All streams are to be managed to meet Oregon State water quality standards. Stream habitat will also be managed to support desired fish populations in coordination with Oregon Department of Fish and Wildlife and Federal agencies. Each alternative provides for varying investment levels to recover those riparian areas not currently in satisfactory condition.

g *Comment:* Nine areas are recommended to be allocated to a semiprimitive, nonmotorized management strategy.

*Forest Response:* Alternative C-Modified allocates the suggested roadless areas to this strategy.

## 5. Overview of All Alternatives

The alternatives developed for management of the Malheur National Forest are designed for full implementation and focus on the resolution of the planning issues. The limits and reference points identified in the benchmark analyses were used in constructing these alternatives. Several of the alternatives are required by regulation or Regional and National direction. The required alternatives and others developed for display in the Final Environmental Impact Statement are summarized in Section B 5 of this chapter.

### a *Alternatives Considered but Eliminated from Detailed Study*

Several alternatives were considered but eliminated from detailed study in this EIS. Some of the alternatives were originally considered for full development, but were not developed in detail for this EIS as they either closely resembled other developed alternatives or were determined to be less than sufficient for implementation.

Alternatives D, E, F-departure, G, and H have been deleted from the array of viable alternatives that were considered in the Draft Environmental Impact Statement. Resulting from an analysis of comments, the lack of broad public support and close similarities with other alternative designs render these unnecessary for inclusion as alternatives to be considered in this Final Environmental Impact Statement. Their further analysis was not considered necessary at this point, although they have contributed to the consideration of a reasonable range of alternatives. In many cases, specific attributes of these alternatives are brought forward into the remaining alternatives that are fully considered in this final Environmental Impact Statement.

## Disposition of Fully-Developed Alternatives Considered in Final EIS

Treatment in EIS	Alternatives												NC	Current Direction Bnchmk <sub>4/</sub>
	A	B	B C Mod		C D Mod		E	F	F G H Dep		I			
			1/	2/					3/					
Alternative listed in Draft EIS	X	X		X		X	X	X	X	X	X		X	X
Alternative listed in Final EIS	X		X		X			X				X	X	X
DEIS Alternatives eliminated in FEIS		X		X		X	X		X	X	X			
New Alternatives brought into FEIS				X		X						X		

1/Alternative B-Modified represents a change in Alternative B (RPA) related to proposals by timber industry representatives following release of the draft EIS. Alternative B-Mod is a new commodity-oriented alternative.

2/Alternative C-Modified represents changes made to Alternative C, in response to comments from environmental community representatives following release of the draft EIS. Alternative C-Mod is a new amenity-oriented alternative.

3/Preferred Alternative I

4/Current Direction Benchmark with incorporation of National Forest Management Act (NFMA) requirements, which is Alternative A in this FEIS.

Following release of the Draft Environmental Impact Statement, two additional alternative designs were submitted that emphasized specific management strategies and land use alternatives. These alternatives, known as the Preferred Plus Alternative (commodity oriented) and Citizen's Multiple Use Alternative (CMUA - amenity oriented with historic commodity production) have been added to the Grant County Conservationist Alternative (GCC - amenity oriented) as alternatives considered, but eliminated from detailed study.

Meetings throughout the spring and early summer of 1988 with advocates of the GCC, CMUA, and Preferred Plus alternatives have provided the information necessary to portray these different management approaches. FORPLAN analysis was used to model potential resource outputs. A summary of the organization-designed alternatives is given and is compared to a fully-developed alternative carried forward into this Final EIS. Alternatives eliminated from this FEIS are described below.

*Alternative D:* This alternative was originally designed to provide a moderate level of amenity land uses, while emphasizing commodity-oriented production. The goal of this alternative was to provide a mix of amenity and commodity land uses by emphasizing dispersed recreation opportunities, wildlife habitat, and intensive timber and forage production.

*Alternative E:* The goal of Alternative E was to emphasize the production of moderate-size ponderosa pine trees while providing a mix of other resources. This alternative was originally designed to perpetuate ponderosa pine, while reducing the mixed conifer occurrence across the Forest.

*Alternative F-Dep* This alternative was originally designed to allow a harvest departure during the first decade from the base harvest schedule identified in Alternative F. Alternative F-Dep has the same land use goals as Alternative F, but intensified harvests in mixed conifer stands experiencing severe defoliation due to western spruce budworm infestations and other stand-damaging agents.

*Alternative G* The goal of this alternative was to provide a high level of roadless recreation opportunities, while increasing commodity production on those areas open to development. The emphasis of Alternative G was to provide for increased levels of commodity production, from reduced available lands.

*Alternative H* This alternative was designed to portray the maximum economically efficient timber harvest level, while emphasizing the production of large diameter ponderosa pine trees. The land management assignments in Alternative H are similar to Alternative B-Modified.

*GCC alternative* This alternative is to be developed with no programmed timber harvest level. All roadless areas are retained as roadless, with no scheduled timber harvests. Alternative C-Modified is a fully-developed alternative that has similar resource outputs as those described under the GCC Alternative.

- a Riparian zones have no scheduled harvests,
- b Foreground visual prescriptions are applied to a maximum of acres;
- c Old growth set at 120,000 acres excluding roadless or wilderness areas, and
- d Uneven-aged timber management featured on a majority of acres.

*CMUA alternative* This alternative is developed with similar resource allocations as the GCC alternative (above), but with an allowable timber sale quantity set at roughly 203 million board feet per year (average timber sale level from 1977-86). Alternative C-Modified is a fully-developed alternative that comes very close to capturing the themes of many of these alternative designs in land allocations.

- a Roadless areas are all retained, with no scheduled harvests,
- b Riparian zones are to have scheduled timber harvests, but very low ones,
- c Old growth set at 75,000 acres excluding roadless and wilderness areas, and
- d Uneven-aged timber management featured on at least 30 percent of acres.

*Preferred Plus alternative.* This alternative sets an allowable timber sale quantity of 260 million board feet per year, as more acres are allocated to timber management. For the Final EIS, Alternative B-Modified is a fully-developed alternative that comes very close to expressing this proposal for both land allocations and resource outputs.

- a Roadless areas scheduled for harvest, except for Vinegar Hill - Indian Rock
- b Old growth set at 45,000 acres outside of wilderness and roadless areas;
- c Visual corridors reduced in both width and size of target trees,
- d Even-aged timber management featured on most acres, and
- e Uneven-aged management retained in riparian and foreground visual zones.

## Summary of Trade-offs Between Proposed and Fully-Developed Alternatives

Alternative Attributes	Proposed Alternative design by Management Emphasis			Detailed Alternative	
	Preferred-Plus	CMUA	GCC	B-Mod	C-Mod
<b>Allowable Sale Quantity</b>	<b>(Decade 1)</b>				
ASQ (MMCF/year)	45.3	34.1	23.8	44.0	25.5
ASQ (MMBF/year)	259.1	197.9	136.1	252.0	146.0
Land Allocation (acres, in 1000s)					
<b>Even-Aged Timber</b>					
Management Prescriptions	867,944	571,981	344,321	866,977	568,304
<b>Uneven-Aged Timber</b>					
Management Prescriptions	N/A	158,364	267,400	89,806	202,083
Visual Foreground Rx	64,247	65,776	136,828	57,335	133,990
Riparian Zone Harvest Rx	45,604	36,660	0	44,607	0
Roadless Area Retained	13,322	180,948	192,476	13,322	192,476
<b>Total Old Growth Outside of Roadless/Wilderness</b>	<b>44,860</b>	<b>75,000</b>	<b>120,000</b>	<b>43,600</b>	<b>47,930</b>

Benchmarks were developed to estimate resource and economic potentials (see discussion in Appendix B) with little or no consideration given to multiple use objectives or resolution of Forest issues. While the benchmarks provided much useful information for the development of detailed alternatives, the formulation of the benchmarks themselves often precluded their consideration as alternatives. The outputs and activities associated with the benchmarks were portrayed in Table II-2 and Figure II-1 earlier in this chapter.

The minimum level benchmark was eliminated from detailed study because it did not sufficiently address a wide enough range of uses in an acceptable fashion.

Maximum resource supply benchmarks (i.e., timber, range, big-game, anadromous fish) were eliminated from further study because they are not within the legal jurisdiction of the Forest Service. Reaching the levels of biological potential of a single resource would violate the management standards in National Forest Management Act regulations (36 CFR 219.13). Furthermore, these single-resource benchmarks represent responses to single issues and do not achieve the greatest net public benefits over the long term.

The maximum present net value benchmarks were eliminated because nonpriced benefits were disregarded. These benchmarks do not address the issues, nor do they satisfy the National Forest Management Act and the Multiple Use Sustained Yield Act. However, these benchmarks do provide a valuable comparison point of the present net value of the Forest.

### b Alternatives Considered in Detail

The rest of this chapter describes the alternatives considered for the future management of the Malheur National Forest and compares those alternatives to each other. Each of these alternatives (except the No Change Alternative) is a technically and legally possible strategy for managing the Forest and provides a different way of addressing the planning topics. The No Change Alternative does not meet some legal requirements. When considered in total, they provide a wide range of outputs, benefits, costs, and land management assignments.

The alternatives presented in these documents contain specific management actions for the plan period. The plan period is comprised of the next 10 to 15 years only. (The plan period is defined by the NFMA regulations as one decade (36 CFR 219.3-1982), while the law permits a 15-year maximum (16 U.S.C. 1604(f)(5)). Within the plan period, conditions on the Forest will be reanalyzed and a revised plan developed if conditions warrant it (36 CFR 219.10(g)-1982 and (16 U.S.C. 1604(f)(5)).

The projection of alternative effects and attributes beyond the 10- to 15-year plan period, although required by law, does not legally bind the Forest to action beyond the plan period. The Forest is required to revise the plan within 15 years of its development and this revision may establish different long-term goals with different future projections.

Management actions, outputs, and environmental and socioeconomic effects for several decades beyond the plan period are discussed for the alternatives. The purpose of these discussions is twofold: (1) To present a long-term analysis of the management necessary for each alternative to maintain a high level of periodic output of the various resources without impairment of land productivity (16 U.S.C. 531), and (2) to provide an estimate of long-term outputs by alternative and corresponding program development for the Forest and Rangeland Renewable Resources Act (Resources Planning Act). A complete estimate of outputs, costs, and effects for five decades is necessary for a Resources Planning Act program to link with actual conditions and local issues at the Forest level.

*c Mitigation Common to All Alternatives*

Mitigating measures are the constraints, limitations, practices, and land-use assignments that serve to reduce, avoid, minimize, rectify, or compensate for adverse impacts of other management activities on the basic resources. They also provide for different kinds of recreational opportunities. They range from the land assignments made in an alternative to special provisions which can be included in specific contracts or use permits. This section describes the mitigating measures that are common to all alternatives.

Each alternative includes measures to mitigate potentially adverse environmental effects. Included are most of the Forest-wide standards and direction found in individual management areas. Measures vary from specific to general. Many mitigation measures will be implemented by incorporating them in permits and contracts for timber harvesting, construction, and other activities occurring on the Forest.

Additional mitigating measures are found in various laws, regulations, and policy statements governing management of National Forest lands.

Mitigation is an integral part of all management activities and is assumed when estimating environmental consequences. The Forest-wide standards are an example of mitigating measures that apply to all activities on the Forest.

Cultural resources are another resource for which management practices must be mitigated. Federal law requires that the National Register of Historic Places (significant cultural resource properties) be managed to protect their values. Federal law also requires concurrence consultation with the Advisory Council on Historic Preservation and/or the State Historic Preservation Officer prior to executing a project or undertaking.

There are several areas on the Forest that are excluded from all logging activity by a special land-use assignment. They are the Cedar Grove, Tex Bridge, and Magone Lake Special Interest Areas, the Canyon Creek Research Natural Area, and the wildernesses.

Other mitigating measures common to all alternatives include the Management Requirements (MRs), Best Management Practices (BMPs), and the use of timber sale contract provisions such as requiring that all skid trail locations be approved prior to any timber falling. See the Forest-wide standards for a more complete list of mitigating measures that apply to all alternatives.

Project-level monitoring (formal and informal, intensive and extensive) is the means used to ensure that mitigation is completed as prescribed and that it is effective.

d *Management Direction Common to all Alternatives* This section describes the management direction common to all alternatives

Forage will be reserved for 100 head of wild horses on the Murderers Creek Wild Horse Territory in the South Fork John Day River area

The habitat on Aldrich Mountain, McClellan Mountain, and in the Strawberry Mountain Wilderness will be maintained for California bighorn sheep

Wintering habitat for bald eagles will be provided according to the Threatened and Endangered Species Act and the Pacific Northwest Bald Eagle Recovery Plan. The American peregrine falcon will be introduced to the Strawberry Mountain Wilderness in accordance with the recovery plan, unless naturally occurring birds occupy the site in the next 3-5 years. Sensitive species and special habitats (such as cliffs, talus slopes, caves, raptor nest sites, bear dens, etc.) will be protected under current management direction. Areas of importance to native American Indians will be identified through consultation with native tribes, and roots, berries, and medicinal plants of importance will be maintained in these areas.

Special areas on the Forest which will be maintained are Magone Lake Geological Area, Cedar Grove Botanical Area, Tex Bridge Geologic Site, Vinegar Hill - Indian Rock Scenic Area, and Canyon Creek Research Natural Area. In addition, the Baldy Mountain candidate Research Natural Area would be recommended for designation in all alternatives except Alternative No Change. McClellan Mountain and Antelope Valley would also be recommended as Research Natural Areas in all alternatives except Alternative NC and Alternative I.

The Forest will provide for resource protection and the use of prescribed fire to protect, maintain, and enhance resource values in all alternatives. All wildfires will receive an appropriate suppression response and will be suppressed at a minimum cost, consistent with land and resource management objectives. Prescribed fire may be used to meet management objectives. Normally, prescribed fire will be from planned human ignitions sources. However, prescribed natural fire from unplanned ignitions (lightning) may be used in Wilderness and Roadless Areas when appropriate to let fire play its natural ecological role in these areas.

Future electronic communication facilities may be located on the following sites as needed: Aldrich, Antelope, Black Butte, Devine Ridge, Dixie Butte, Fall Mountain, Utley Mountain, Lake Butte, Long Creek Mountain, Pogue, Snow Mountain, and Thompson Butte.

e *Required Alternatives* Among the alternatives formulated are several that are required by regulation and National and Regional direction. These alternatives were reviewed against public comments to the draft EIS and were thus carried forward as originally described, or modified to conform to regulation and direction, or they were eliminated from further consideration. These alternatives are listed and briefly described here.

*No Action (Current Direction)* This is the No Action Alternative required by the Council on Environmental Quality (CEQ) regulations (40 CFR 1502.14) and by the National Forest Management Act planning regulations (36 CFR 219.12(f)). This alternative would continue the management of the Malheur National Forest as defined by existing direction. Alternative A is the No Action Alternative in this Environmental Impact Statement.

*No Change* The "No Change" alternative has been developed in response to direction by the Chief of the Forest Service and Deputy Assistant Secretary Douglas MacCleery.

regarding appeal number 1588, brought by the Northwest Forest Resource Council on May 19, 1986. The No Change Alternative is designed to represent the existing timber management plans and, consequently, does not comply with all provisions of the National Forest Management Act (NFMA) and regulations promulgated by the Secretary of Agriculture to implement NFMA

*Emphasis on Market Opportunities* Alternative B-Modified is the alternative in this Environmental Impact Statement which emphasizes timber market opportunities for the Malheur National Forest. This alternative has an emphasis on timber outputs that have an established market price. It does not greatly emphasize expenditures for other commodity or amenity outputs other than timber. Management for other resources is at economically and environmentally feasible levels consistent with the emphasis on timber market-oriented outputs.

*Emphasis on Nonmarket Opportunities* Alternative C-Modified is the alternative in this Environmental Impact Statement which emphasizes nonmarket opportunities. This alternative places an emphasis on water, fish and wildlife, recreation, and other amenity values. Management for other resources is at economically and environmentally feasible levels consistent with the emphasis on amenity values.

*Emphasis on Nondevelopment and Intensified Management (DEIS Alternative G)* This alternative emphasizes retention of roadless areas, while using intensified management on those areas already roaded. The purpose of this alternative is to retain many of the roadless areas on the Forest as undeveloped while increasing commodity production elsewhere. Its purpose is to strive for high market value outputs in order to balance the economic effects of non-commodity emphasis in roadless areas. This alternative was considered in the DEIS, but is not carried forward in this Final EIS.

*Emphasis on Current Resources Planning Act Program* This alternative determines how the current (1980) Resources Planning Act Program, distributed to the Forests in the Pacific Northwest Regional Guide, can best be implemented. Alternative B places emphasis on outputs that have an established market price (timber, livestock, forage, commercial fish and minerals). This alternative was considered in the DEIS, but is not carried forward as the RPA Alternative in this Final EIS. Alternative B-Modified is the alternative which displays the emphasis on the timber production portion for the current Resources Planning Act program.

Additional alternatives were formulated to reflect a broad range of public issues, management concerns, and resource use and development opportunities. These alternatives respond to 36 CFR 219.12(f)(1) which requires alternatives to be distributed between the minimum resource potential and the maximum resource potential to display the full range that a Forest could produce. In this fashion, Alternatives F and I were formulated to meet these criteria.

The selection of the Preferred Alternative was made only after receiving and analyzing public and organization comments regarding the resource outputs, environmental effects, implementation costs, and the mix of uses among them. The Preferred Alternative is that alternative which was selected from all those formulated as the one which best maximized the net public benefits in an environmentally sound manner. After the Forest Supervisor reviewed the interdisciplinary team's evaluation, and after the Regional Forester and his staff reviewed the alternatives, the Preferred Alternative was selected as the alternative that would produce the greatest net public benefits to society, while responding effectively to the issues.

Alternative I is the Preferred Alternative in this Final Environmental Impact Statement. Following public review and comment on the Draft Environmental Impact Statement, it became apparent that a new alternative would better maximize net public benefits. With this in mind, Alternative I (Preferred) has been developed.

Information in the following description of alternatives is intended to highlight the most significant features of each alternative. A more-comprehensive understanding of alternatives requires study of other portions of this chapter and Chapter IV, particularly where the outputs and effects related to environmental consequences are described

As you review these alternatives, it may be helpful to refer to the accompanying maps of the alternatives. These maps display the location of the management areas and a brief description of each management area. The acreage assigned to each management area in the alternatives is displayed in Table II-4 (p. 93), which displays a hierarchical means for acre allocations with no acre overlap

## 6. Alternative Descriptions

### a. *Alternative NC (No Change)*

The "No Change" alternative has been developed in response to direction by the Chief of the Forest Service and Deputy Assistant Secretary Douglas MacCleery regarding appeal number 1588, brought by the Northwest Forest Resource Council on May 19, 1986. The appeal centered on direction by Regional Forester James F. Torrence to "require inclusion of (Minimum Management Requirements) in the Current Direction Alternative for each Forest Plan." The substance of the appeal was that a "true No-Action Alternative representing current management plans" was not included in the Forest Plan Environmental Impact Statements. The No Change Alternative is designed to represent the existing timber management plans and, consequently, does not comply with all provisions of the National Forest Management Act (NFMA) and regulations promulgated by the Secretary of Agriculture to implement NFMA. The following provisions of NFMA or other laws or regulations are not partially or fully complied with in current management plans represented by the No Change Alternative.

CFR 219.14 - Timber resource land suitability. Requires identification of land not suited for timber production based on risk of irreversible resource damage, lack of assurance of reforestation within five years, or withdrawal by Act of Congress, Secretary of Agriculture, or Chief of the Forest Service.

CFR 219.16 - Timber resource sale schedule. Requires determination of the quantity of timber that may be sold during each decade. Requires calculation of the long-term sustained yield capacity.

CFR 219.27(c)(1) - Management Requirements, silvicultural practices. Requires that no timber harvesting shall occur on lands classified as not suited for timber production pursuant to CFR 219.14, except for salvage sales, sales necessary to protect other multiple use values or activities that meet other objectives on such lands if the forest plan objectives establish that such actions are appropriate.

The No Change Alternative could not be implemented or used in future management of the Forest under the Forest Plan without Congressional and/or Secretary of Agriculture action to change the law or regulations.

*Timber Management.* The timber management goal is to grow moderate size trees (19-inch diameter and larger) while emphasizing rapid fiber growth rates. A full range of timber management intensities would be made available to 1,116,577 acres to meet this goal. 59 percent of this land would be managed for full yield and 41 percent for 50 to 90 percent of full yield. First decade potential yield in Alternative NC would be 269.7 million board feet annually. This is about 42 million board feet above 1980-89 average annual sell levels. Potential yield is the sustainable output of wood fiber available after the needs of other Forest uses have been deducted from the biological potential.