Timberland Resources

INTRODUCTION

Forested lands were assessed, during development of Forest Plans, to determine their suitability for timber production. Timberlands previously identified as not suited for timber production are required by the National Forest Management Act (1976) to be reassessed every 10 years. Additionally, changes in land ownership, allocation of some land to specific uses, and new technology available for assessing land status, have all contributed to the recognition that a complete reassessment of timberland suitability is warranted.

Issues and Indicators

Issue Statement – Forest Plan management strategies may affect the amount of suited timberlands and sustainable timber managed by the Forests.

Background to Issue - The development of Need for Change issues and public scoping resulted in the identification of issues related to timberland suitability and management. Comments received on timber suitability and management revealed a wide range of opinions, including opposing points of view on how and how much timber should be managed. Issues developed from the comments address two primary areas of interest, including how much land and which lands are included as suited timberlands, and what is the sustainable level of timber harvest.

Concerns related to timber management were also raised over costs and values of implementation, supply and demand for timber, and effects on community stability. These concerns are addressed in the *Socio-economic Environment* section of Chapter 3.

Development of direction for vegetation management actions designed to provide for short- and long-term biological, physical, economic and social sustainability, and timberland suitability were identified as Need For Change topics in the *Preliminary Analysis of the Management Situation* (USDA Forest Service 1997). Vegetation management activities need to be developed in a manner that incorporates landscape-level disturbance regimes. These activities also need to provide for species viability and biodiversity, while also providing for goods and services to meet part of the social and economic demands of both local and regional communities.

Timberlands previously identified as not suited for timber production are required to be reassessed every 10 years. Additionally, changes in land ownership, allocation of some land to specific uses, and new technology available for assessing land status have all contributed to the recognition that a complete reassessment of timberland suitability is warranted.

Indicators - Indicators associated with each of the issues provide a means to analyze differences between alternatives, and the way in which an issue is addressed. The following indicators are used to evaluate effects of the timber-related issues by alternative:

- *Suited Timberlands*. This indicator will vary by alternative. It will describe the total area available for timber management, and also which lands will be used to calculate the Allowable Sale Quantity (ASQ). The analysis will display acres of timberland identified as tentatively suited, and acres of tentatively suited timberland identified as appropriate for timber management. Lands considered appropriate for timber management may include timberlands within riparian conservation areas and areas predicted as having landslide potential. Suited timberland acres in these areas will vary by alternative.

- *Potential yield of timber and other wood products*. Two different measures will be used for this indicator: 1) ASQ, and 2) total sale program quantity (TSPQ). ASQ is a measure of the maximum amount of timber that can be offered for sale each decade. Timber that contributes to ASQ comes from suited timberlands. The calculated ASQ volume is the amount of timber that is available on a continuous or sustainable basis, from the suited timberlands, based on current conditions of suited timberland acres, and the expected yields associated with planned management actions. Changes in either or both of these elements may change the calculated ASQ volume. TSPQ is a measure of the total amount of timber and other wood products that could be produced by each alternative. TSPQ includes all of the ASQ volume plus an additional volume of wood products (e.g., fuelwood, post, poles, etc.) that may come from both suited and not suited timberlands.

Affected Area

The affected areas for direct, indirect and cumulative effects to timberland resources are the lands administered by the three National Forests in southwest Idaho, the Boise, Payette and Sawtooth National Forests. This area represents the National Forest System lands where management actions may result in changes to forest vegetation.

CURRENT CONDITIONS

Prehistoric and Historic Influences

The greatest influence on vegetation patterns and distribution comes from soil types and climatic regimes. However, fire ignited by both lightning and Native Americans strongly influenced the pattern and distribution of vegetation mosaics and the distribution of age classes. Local artifacts indicate that the ancestors of Native American tribes have occupied the Ecogroup area for at least 8,000 to 10,000 years. Archeological records have given us a clearer picture of what the landscape probably looked like while these ancestors lived here. Native Americans kept traditional hunting and gathering areas in an open condition through deliberate seasonal burning. Fires were set to drive mountain sheep toward traps, encourage new growth in meadows, clear encroaching brush, and rejuvenate plants needed for

baskets, arrows, and other necessities. The occurrence and severity of fires ignited by lightning was dependent on local site and vegetation conditions. In general, at low elevations on the warm dry sites, fires occurred frequently and maintained stands in relatively open conditions with minor accumulations of woody fuel. At mid-elevation sites, fires generally occurred with less frequency, allowing for the development of stands with more closed or denser vegetation and greater fuel accumulations. This resulted in a greater variety of fire conditions, ranging from low-intensity ground fires typical of the low-elevation forests, to high-intensity stand-replacing fires in which entire stands of trees were killed. In the high-elevation cold forest types, fires occurred at infrequent intervals. In these cold forest types, other physiographic features and disturbance events, such as insect epidemics, disease occurrences, and wind damage, played a greater role in influencing vegetation development, patterns, and distribution.

The discovery of gold in the Idaho Territory around 1860 began to bring miners and other settlers to the area in great numbers. Communities seemingly sprang up overnight in mountain locations like Warren, Idaho City, Sawtooth City, and Atlanta. People in these communities depended on natural resources in the surrounding areas to meet many of their needs, including wood for construction, mine timbers, and fuel. The majority of wood was used to meet the need for fuel, used for both heating and cooking. The actual quantities of wood used are not well documented, probably because there was no apparent need to either inventory or record the amount consumed for a resource that was considered abundant. However, a few records leave the impression that wood was used extensively, with woodcutters in high demand. One such account is provided by Susan M. Stacy in, *Legacy of Light, a History of the Idaho Power Company* (Stacy 1991), in which she states:

> "Having enough fuel was always a problem even after mining equipment improved in the 1860s. Throughout the Owyhee Mountains, the Chinese labored at woodcamps, and the newspaper was full of offers of free room and board for woodcutters."

Another example of the use of wood near mining settlement is described in *Snapshot In Time: Repeat Photography on the Boise National Forest 1870 - 1992* (USDA Forest Service 1993). A description on page 13 states, "Historic photographs show that mining areas were generally stripped or clear cut of any forest cover". As late as 1880, practically all of the fuel used in Idaho came from wood (Williams 1989). This intensive use of wood over time depleted the accessible timber in the areas surrounding communities.

The prevailing sentiment during this period of western expansion was that natural resources were inexhaustible and there for the taking. As the settler populations and resource needs increased, so did their effects on the environment. As noted above, vegetation patterns began to change substantially in and around mining and agricultural communities. The role and use of fire changed considerably during this time. The settlers essentially viewed fire as a potential threat to life and property. This attitude led to increased fire suppression in order to protect homes, crops, and other development from destruction. After 1900, fire lookouts began to appear. Early fire suppression efforts were generally effective because fuels were often sparse, particularly in

vegetation groups that historically burned with frequent, non-lethal fire. These efforts continued to improve as heavy equipment and aircraft became more available. The development and improvement of road systems also increased access for suppression and created fuel breaks.

Following World War II, the baby boom fueled a nationwide demand for affordable housing, which increased timber production throughout the West. An extensive system of roads was developed on National Forest lands to access timber stands in the Ecogroup area. This accelerated harvest and road building continued well into the latter half of the twentieth century.

The combined influences of timber harvest, roads construction, fire suppression, and agriculture affected vegetative communities. In harvest areas, stand densities and species composition were substantially altered, generally resulting in a reduction of large-sized, high-valued tree species. Timber-harvest-created openings were readily regenerated by tree species that are more tolerant of partial shade conditions. These effects, combined with fire exclusion, resulted in stands developing uncharacteristically high level of tree density, fuel loading, and climax species. On the other hand, commodity production and development of roads provided economic and social benefits to many people in the form of jobs and income, wood fiber, receipts to counties, improved access, and opportunities for recreational activities.

Current Timber Conditions

Each Forest in the Ecogroup has completed an inventory of timber resources since 1992; lands within wilderness areas were not inventoried. The inventory data are used to characterize the present condition of forest vegetation. Inventory data elements that have been summarized include timber volumes, timber growth capacity (productivity), and distribution of timber by size classes. Tables T-1 through T-6 display summarized data representing current timber conditions on the three Forests. The acreages for suited and not suited timberlands are representative of the management prescription category allocations in Alternative 7. Volume is presented in thousands of board feet (MBF) and thousands of cubic feet (MCF).

Table T-1. Present Timber Conditions on the Boise National Forest

Conditions	Suited Timberland Acres		Acres Not Appropriate for Timber Production (Not Suited)	
Present Forest Growing Stock	4,758,580 MBF	878,810 MCF	10,801,330 MBF	2,106,480 MCF
Live Cull	196,760 MBF	38,470 MCF	571,150 MBF	112,620 MCF
Salvageable Dead	85,500 MBF	15,820 MCF	266,600 MBF	51,710 MCF
Annual net growth	10,020 MBF	100 MCF	- 59,640 MBF	- 10,570 MCF
Annual mortality	101,700 MBF	20,040 MCF	313,960 MBF	59,530 MCF
Size Class Distribution Acres (Percent of Total)				
Grass/Forb/Shrub/Seedling	113,900 (21.6%)		237,400 (20.7%)	
Sapling trees	43,400 (8.2%)		90,150 (7.8%)	
Small trees	140,700 (26.7%)		404,100 (35.2%)	
Medium trees	163,950 (31.1%)		304,300 (26.5%)	
Large trees	65,550 (12.4%)		113,300 (9.8%)	

Table T-2. Present Timber Conditions on the Payette National Forest

Conditions	Suited Timberland Acres		Acres Not Appropriate for Timber Production (Not Suited)	
Present Forest Growing Stock	4,125,000 MBF	858,000 MCF	13,430,610 MBF	2,818,770 MCF
Live Cull	194,040 MBF	34,650 MCF	633,394 MBF	112,750 MCF
Salvageable Dead	573,210 MBF	119,130 MCF	3,888,244 MBF	807,494 MCF
Annual net growth	66,330 MBF	12,210 MCF	215,533 MBF	39,794 MCF
Annual mortality	16,170 MBF	3,300 MCF	109,435 MBF	23,213 MCF
Size Class Distribution Acres (Percent of Total)				
Grass/Forb/Shrub/Seedling	94,500 (28.6%)		383,700 (23.0%)	
Sapling trees	20,700 (6.3%)		98,900 (5.9%)	
Small trees	68,800 (20.8%)		579,600 (34.8%)	
Medium trees	89,600 (27.2%)		375,800 (22.5%)	
Large trees	56,400 (17.1%)		229,800 (13.8%)	

Table T-3. Present Timber Conditions on the Sawtooth National Forest

Conditions	Suited Timberland Acres		Acres Not Appropriate for Timber Production (Not Suited)	
Present Forest Growing Stock	1,141,700 MBF	252,200 MCF	7,671,800 MBF	1,658,100 MCF
Live Cull	27,400 MBF	5,900 MCF	136,400 MBF	35,000 MCF
Salvageable Dead	55,200 MBF	14,600 MCF	914,700 MBF	246,600 MCF
Annual net growth	- 5,300 MBF	- 1,400 MCF	- 16,300 MBF	2,200 MCF
Annual mortality	29,200 MBF	6,200 MCF	115,000 MBF	23,600 MCF
Size Class Distribution Acres (Percent of Total)				
Grass/Forb/Shrub/Seedling	20,300 (14.4%)		145,700 (16.2%)	
Sapling trees	21,500 (15.2%)		114,900 (12.8%)	
Small trees	47,500 (33.6%)		363,400 (40.5%)	
Medium trees	38,100 (26.9%)		163,800 (18.2%)	
Large trees	14,000 (9.9%)		110,300 (12.3%)	

Table T-4. Timber Productivity Classification for the Boise National Forest

Potential Growth (Cubic feet/acre/year)	Suited Lands (Acres)	Not Suited Lands (Acres)
Less than 20	0	0
20-49	99,600	535,700
50-84	276,300	467,900
85-119	151,600	145,576
120-164	0	0
165-224	0	0
225+	0	0

Table T-5. Timber Productivity Classification for the Payette National Forest

Potential Growth (Cubic feet/acre/year)	Suited Lands (Acres)	Not Suited Lands (Acres)
Less than 20	0	0
20-49	10,400	494,700
50-84	142,700	890,900
85-119	176,900	281,100
120-164	0	0
165-224	0	0
225+	0	0

Table T-6. Timber Productivity Classification for the Sawtooth National Forest

Potential Growth (Cubic feet/acre/year)	Suited Lands (Acres)	Not Suited Lands (Acres)
Less than 20	0	0
20-49	94,500	566,900
50-84	35,200	305,500
85-119	11,700	25,700
120-164	0	0
165-224	0	0
225+	0	0

Timberland Suitability

Tentatively suited timberlands have been reassessed as part of Forest Plan revision for all three National Forests. Reassessment of tentatively suited timberlands was accomplished in accordance with Forest Plan regulations 36 CFR § 219.14 and Forest Service Handbook FSH 2409.13 Chapter 20, and is fully described in Appendix E. The National Forest Management Act requires that, as a minimum, lands previously identified as not suited be reassessed at least every 10 years. The current efforts to revise the Forest Plans coincide with the need to reassess not suited timberlands; therefore, a complete reassessment of suited timberlands was done. This has allowed for a comprehensive examination of the status of timberlands on each National Forest, thus taking into account changes since the previous assessment of timberlands. Some of these changes include adjustments in land ownership, increased knowledge and experience with reforestation efforts, and increased knowledge and experience with timber management effects on soils and water quality.

The assessment was accomplished using Geographic Information System (GIS) technology. Use of GIS provides consistency in identifying each of the following data elements, which, when taken together, identify unsuitable lands, or in other words, those lands that are not capable or not available for timber production:

- National Forest lands that have been withdrawn from timber production.
- National Forest lands exclusive of withdrawn areas that are not forested.
- Available forested land that is physically unsuited for timber production, due to the inability to assure adequate restocking, or due to potential for irreversible damage to soils or watersheds.

The forested lands remaining after identifying unsuitable lands are those that are available and capable of timber production, also referred to as tentatively suited.

Tentatively suited timberlands represent the forestland area that is available and capable for sustainable timber production. These lands, therefore, represent the maximum number of acres that could be managed for regular and predictable timber outputs, and are the lands used in determining the ASQ for

each Forest. Table T-7 displays the results of the tentatively suited timberlands assessment for the proposed forest plans, and compares that data with tentatively suited timberlands for the current forest plans. Differences are due to a variety of factors including land exchanges, different methods used to classify forest vegetation, and different methods used to determine acreages.

Table T-7. Tentatively Suited Timberlands, Current Vs. Proposed Forest Plans

National Forest	Current Plans Tentatively Suited Acres	Proposed Forest Plan Tentatively Suited Acres	Difference (Acres)	Percent of Current Forest Plan Tent. Suited Acres
Boise	1,272,000	1,478,000	+ 206,000	116%
Payette	821,000	1,110,000	+ 289,000	135%
Sawtooth	240,640	715,000	+ 474,360	297%
Totals	**2,333,640**	**3,299,000**	**+ 969,360**	**141%**

The large difference indicated for the Sawtooth National Forest is due largely to the method used in assessing tentatively suited timberlands for the current forest plan. Forested lands that were considered as being not appropriate for timber production were subtracted from the net forested acres in the previous assessment. This included the treatment of proposed wilderness as withdrawn for timber production, and identifying a large area as physically not suited because timber management would be inconsistent with other resource objectives. Following the procedures used for the current assessment these lands would have been identified as tentatively suited. They then could have been identified as not appropriate for timber production, thus having a direct influence on the lands identified as being suited for timber production.

Only suited timberlands can be managed for regular and predictable timber outputs. These are the lands that are considered as being appropriate for timber management. Suited timberlands are identified separately for each alternative addressing issues specific to the alternative.

Forested lands, in potential vegetation groups 2 through 10, and in management prescription categories 2.1 (scenic and recreational segments of wild and scenic river corridors), 4.2, 5.1, 5.2, 6.1, and 6.2 were identified as suited timberlands for the proposed forest plans. The following tables, T-8 through T-10, display the proposed forest plan tentatively suited, and suited timberland acres for each National Forest in the Ecogroup. The tables also provide a comparison with the current forest plan acres.

Table T-8. Boise National Forest Land Classification

Classification	Current Forest Plan Acres	Proposed Forest Plan Acres
1. Non-forest Land (includes water)	309,000	525,800
2. Forest Land	1,955,000	1,668,600
3. Forested Land withdrawn from timber production	61,000	12,800
4. Forest land not capable of producing crops of industrial wood	0	0
5. Forest land physically unsuitable --irreversible damage likely to occur --not restockable within 5 years	622,000	180,700
6. Forest land--inadequate information*	0	0
7. Tentatively suitable forest land (item 2 minus items 3, 4, 5, & 6)	1,272,000	1,475,100
8. Forest land not appropriate for timber production**	616,000	947,600
9. Unsuitable forest land (items 3, 4, 5, 6, and 8)	1,299,000	1,141,100
10. Total suited forest land (item 2 minus item 9)	656,000	527,500
11. Total national forest land (items 1 and 2)	2,264,000	2,201,400

* Lands for which current information is inadequate to project responses to timber management. Usually applies to low site lands.
** In the Forest plan, disaggregate the acreage of lands identified as not appropriate for timber production by: (a) minimum management requirements; (b) multiple-use objectives; and (c) cost efficiency (FSH 2409.13-23).

Table T-9. Payette National Forest Land Classification

Classification	Current Forest Plan Acres	Proposed Forest Plan Acres
1. Non-forest Land (includes water)	168,000	387,000
2. Forest Land	2,128,000	1,921,000
3. Forested Land withdrawn from timber production	655,000	666,000
4. Forest land not capable of producing crops of industrial wood	0	0
5. Forest land physically unsuitable --irreversible damage likely to occur --not restockable within 5 years	652,000	382,000
6. Forest land--inadequate information*	0	0
7. Tentatively suitable forest land (item 2 minus items 3, 4, 5, & 6)	821,000	1,109,300
8. Forest land not appropriate for timber production**	389,000	789,300
9. Unsuitable forest land (items 3, 4, 5, 6, and 8)	1,696,000	1,668,100
10. Total suited forest land (item 2 minus item 9)	432,000	330,000
11. Total national forest land (items 1 and 2)	2,296,000	2,299,300

* Lands for which current information is inadequate to project responses to timber management. Usually applies to low site lands.
** In the Forest plan, disaggregate the acreage of lands identified as not appropriate for timber production by: (a) minimum management requirements; (b) multiple-use objectives; and (c) cost efficiency (FSH 2409.13-23).

Table T-10. Sawtooth National Forest Land Classification

Classification	Current Forest Plan Acres	Proposed Forest Plan Acres
1. Non-forest Land (includes water)	1,412,000	1,020,000
2. Forest Land	678,000	1,091,000
3. Forested Land withdrawn from timber production	133,000	112,000
4. Forest land not capable of producing crops of industrial wood	113,000	52,700
5. Forest land physically unsuitable --irreversible damage likely to occur --not restockable within 5 years	191,000	211,300
6. Forest land--inadequate information*	0	0
7. Tentatively suitable forest land (item 2 minus items 3, 4, 5, & 6)	241,000	715,000
8. Forest land not appropriate for timber production**	142,000	573,500
9. Unsuitable forest land (items 3, 4, 5, 6, and 8)	579,000	949,500
10. Total suited forest land (item 2 minus item 9)	99,000	141,500
11. Total national forest land (items 1 and 2)	2,101,000	2,111,000

* Lands for which current information is inadequate to project responses to timber management. Usually applies to low site lands.
** In the Forest plan, disaggregate the acreage of lands identified as not appropriate for timber production by: (a) minimum management requirements; (b) multiple-use objectives; and (c) cost efficiency (FSH 2409.13-23).

ENVIRONMENTAL CONSEQUENCES

Effects Common to All Alternatives

Resource Protection Methods

Resource protection has been integrated into timberland management direction at various scales, from national to site-specific. The cumulative positive effect of the multi-dimensional direction described below is beneficial protection and mitigation for all resources that may potentially be adversely affected by timber management activities.

Laws, Regulations, and Policies – Numerous laws, regulations, and policies govern the classification use and administration of timberland resources on National Forest System lands. Some of the more important ones are described in Appendix H in the revised Forest Plans, Legal and Administrative Framework. National laws and regulations have also been interpreted for implementation in Forest Service Manuals, Handbooks, and Regional Guides. All timber management activities and the assessment of suited timberlands must comply with these laws, regulations, and policies, which are intended to provide general guidance for the implementation of vegetation management practices, and for protection of related resources.

Forest Plan Direction – Forest Plan management direction for timberland resources varies somewhat by alternative, however, direction for all alternatives has been developed to maintain forest vegetation

within desired conditions, or to promote the development of desired vegetation conditions, on National Forest System lands. Direction occurs at both the Forest-wide and Management Area levels. Goals and objectives have been designed to achieve desired forest vegetation conditions over the long term, and to provide sustainable levels of timber production, while maintaining or restoring ecosystem functions and processes. Timber management standards and guidelines have been designed to protect other resources that could be adversely affected by vegetation management activities. Furthermore, management direction for other resource programs—such as soil, water, riparian, aquatic, wildlife, and recreation—provide additional guidance and resource protection in an integrated manner.

Forest Plan Implementation - Proper timber management depends on current and site-specific information about biophysical conditions and the effects that management practices have on affected resources. Some of these factors are not appropriately addressed at the programmatic level, whereas other factors may be similar to all alternatives. The development of stand-level silvicultural prescriptions will address all site and related resource factors. Through this process, which is the same for all alternatives, adjustments in management practices would be made to address resource concerns in a timely, effective, and site-specific manner. Additionally, site-specific evaluations will be used to verify the timberland suitability classification of the site.

Forested Land Identified As Tentatively Suited

Forested vegetation is comprised of conifer trees and associated broadleaf trees and understory vegetation such as shrubs, forbs, and grasses. Forested vegetation can be classified by habitat types which, when grouped together, are referred to as potential vegetation groups (PVGs). The PVGs include forested stands in a wide range of successional and growth stages, and most are, or will be, dominated by conifer species that have commercial value. Forest vegetation changes as a result of growth and disturbance processes. These changes are characterized by changes in species composition, tree size and canopy closure. The most common causes for change in forest vegetation come from tree growth and development, timber harvest, fire, and insect activity. Minor changes are associated with livestock grazing, wildlife concentrations, and recreation activities. Development of forest vegetation may also be influenced by diseases such as blister rust, mistletoe, or root rot, and by climatic disturbances such as wind, flood, and drought.

National Forest lands are periodically assessed to determine whether they are suited for timber production. The analysis begins by identifying those lands that are not available and capable of being managed for timber production. This specifically results in the identification of:

1) National Forest lands that do not and cannot support forest vegetation,

2) Lands that have been formally withdrawn from timber production, such as designated wilderness,

3) Forested lands where restocking of tree seedlings can not be assured within 5 years following timber harvest, and

4) Lands where timber production may result in irreversible resource damage to soil productivity or watershed conditions.

Lands that possess any one of the above conditions are classified as not suited for timber production. The remaining lands are classified as tentatively suited for timber production. These lands are legally available, and biologically and physically capable of timber production. This classification is the same for all alternatives, or in other words, the area identified as capable and available for timber production does not vary by alternative.

Lands classified as tentatively suited for timber production are further evaluated to determine whether they are appropriate for timber production. The tentatively suited timberlands identified as being appropriate for timber production are classified as suited timberlands. This will be discussed in greater detail below.

The assessment of tentatively suited timberlands for the revision of the Ecogroup forest plans has yielded the following data for each Forest, summarized in Table T-11.

Table T-11. Tentatively Suited Timberland Acres Within the Ecogroup

Forest or Indicator	Forested Acres	Not Tentatively Suited Acres (Non-forested)	Not Tentatively Suited Acres (Forested)	Tentatively Suited Acres	Total Forest and Ecogroup Acres (all cover types)
Boise	1,668,600	532,800	193,500	1,475,100	2,201,400
Payette	1,998,100	311,200	878,800	1,109,300	2,299,300
Sawtooth	1,091,000	1,020,000	376,000	715,000	2,111,000
Ecogroup Totals	4,757,700	1,864,000	1,448,300	3,299,400	6,611,700
Total Not Tentatively Suited Acres		3,312,300			

Within the Ecogroup area, 4,757,700 acres are classified as forested; of these 3,299,400 acres are tentatively suited, or in other words, capable and available for timber management. Tentatively suited forestlands are further analyzed to determine the total area appropriate for timber management. Suited timberlands are determined separately, and are described for each alternative. Detailed information concerning the determination of tentatively suited acres, and the lands suited for timber management is in Appendix E.

Acres Of Tentatively Suited Lands In Inventoried Roadless Areas

Inventoried roadless areas will not vary by alternative, and thus, the acres of tentatively suited timberland that occur within inventoried roadless area will not change by alternative. The assessment of tentatively suited timberlands is not influenced by the inventory of roadless areas, but the allocation of management prescription categories will determine which tentatively suited timberlands are appropriate

for timber management, including those within inventoried roadless areas. The following table summarizes the inventoried roadless areas, and the acres of tentatively suited timberland within inventoried roadless areas in each Forest.

Table T-12. Tentatively Suited Acres Within Ecogroup Inventoried Roadless Areas

Forest	Inventoried Roadless Area Acres	Tentatively Suited Timberland Acres within Inventoried Roadless Areas
Boise	1,108,500	729,100
Payette	908,200	635,800
Sawtooth	1,225,500	497,400
Ecogroup Total	**3,242,200**	**1,862,300**

Using the data from the two tables above reveals that an estimated 56.4 percent of the tentatively suited timberland acres in the Ecogroup are located within inventoried roadless areas (Boise – 49.3 percent, Payette – 57.3 percent, and Sawtooth – 69.6 percent).

Direct and Indirect Effects by Alternative

Acres of Tentatively Suited Identified As Appropriate For Timber Management

Lands considered as being appropriate for timber management, also referred to as suited timberlands, are identified separately for each alternative. Tentatively suited lands are identified as not appropriate for timber production when management goals and objectives are not consistent with timber production on a sustained yield basis. Conversely, tentatively suited timberlands are identified as being appropriate for timber production where timber management is compatible with other land and resource goals and objectives.

Establishing goals and objectives was accomplished in part by assigning management prescription categories (MPCs) to individual subwatersheds or other identified areas. The MPCs provide a range of resource protection considerations and management opportunities. Each MPC defines whether tentatively suited timberlands will be identified as being appropriate for timber management, or in other words, identified as suited timberland. MPCs 2.1 (scenic and recreational segments of wild and scenic river corridors), 4.2, 5.1, 5.2, 6.1, and 6.2 define tentatively suited timberland as suited timberland. Timberlands in all other MPCs are not suited.

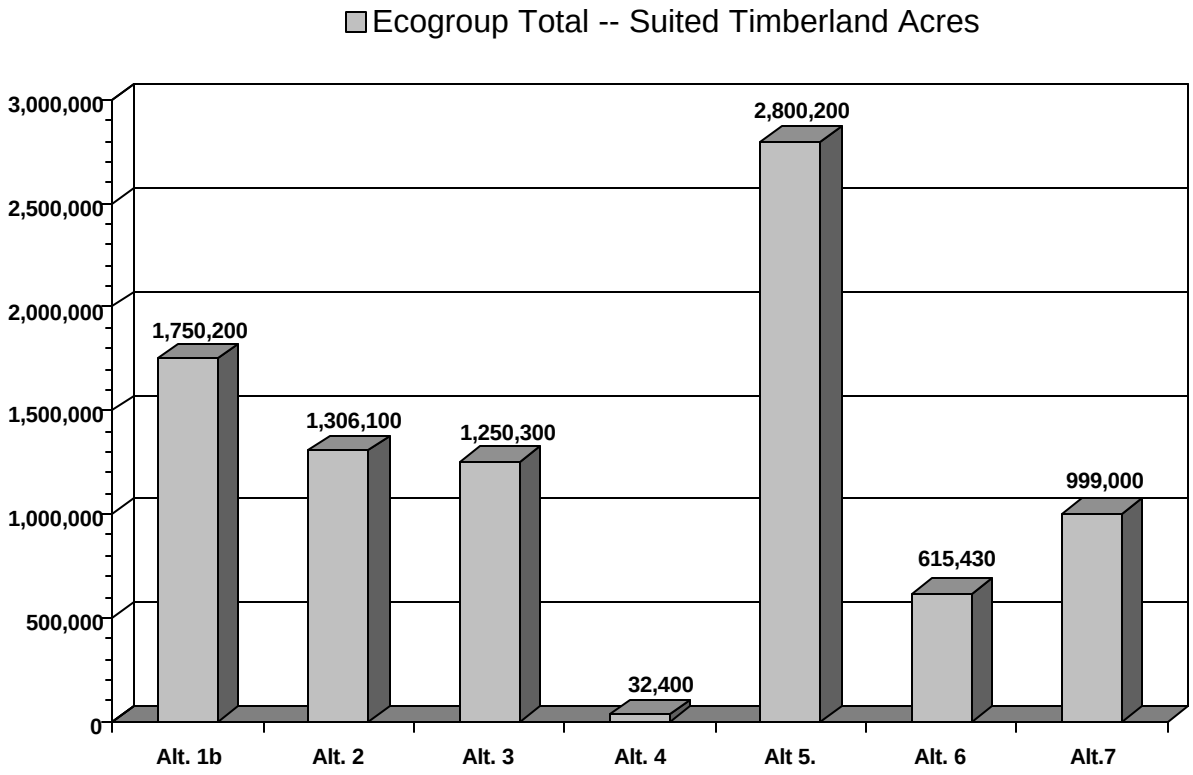
Each MPC allocation considered a variety of conditions, including whether the subwatershed included tentatively suited timberland and associated timber management goals. Although MPCs 2.1 (scenic and recreational segments of wild and scenic river corridors), 4.2, 5.1, 5.2, 6.1, and 6.2 all contain suited timberland, not all lands within these MPCs are necessarily appropriate for timber management. Certain areas or habitat types may be unsuited because they are not physically capable of producing timber on a sustained yield basis. The MPC allocations combined with tentatively suited timberland acres result in

the identification of the acres that are appropriate for timber management in each alternative. Table T-13 lists the suited timberland acres by forest and the total for the Ecogroup for each alternative. Figure T-1 provides a graphical display of the Ecogroup suited timberland acres for each alternative.

Table T-13. Suited Timberland Acres by Alternative

Forest	Alt. 1B	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
Boise	922,000	746,000	649,400	9,300	1,309,800	330,300	527,500
Payette	438,100	358,600	373,900	0	895,100	240,000	330,000
Sawtooth	390,100	201,500	227,000	23,100	595,300	45,130	141,500
Ecogroup Totals	**1,750,200**	**1,306,100**	**1,250,300**	**32,400**	**2,800,200**	**615,430**	**999,000**

Figure T-1. Suited Timberland Acres by Alternative for the Ecogroup



For the Ecogroup, timber management would be considered appropriate on 85 percent of tentatively suited timberlands in Alternative 5, compared to 53 percent in Alternative 1B, 40 percent in Alternative 2, 38 percent in Alternative 3, 30 percent in Alternative 7, 19 percent in Alternative 6, and 1 percent in Alternative 4. The ranking of suited timberlands by alternative for the Payette and the Sawtooth National Forests shows the greatest amount of suited timberlands in Alternative 5, followed in decreasing order by Alternatives 1B, 3, 2, 7, 6, and 4. The ranking on the Boise National Forest is similar but the order of alternatives 2 and 3 are reversed. Therefore, the Boise National Forest ranking

shows Alternative 5, with the greatest area identified as suited timberland followed in order by Alternatives 1B, 2, 3, 7, 6, and 4. Differences between forests are due to the allocation of MPCs by alternative.

As mentioned above, factors other than MPC allocations affect the amount of suited timberlands in the alternatives. Two of these factors are riparian and landslide-prone areas that have been delineated for special protection. These effects are discussed below.

Suited Timberland Acres Within Riparian Conservation Areas – Forested lands within Riparian Conservation Areas (RCAs) are defined as not suited timberlands in Alternatives 1B, 2, 3, 4, 6 and 7. They may be suited in Alternative 5. With the exception of Alternative 5, these areas have been specifically identified as not suited for a sustainable and predictable yield of timber. However, timber harvest and related mechanical treatment methods may occur as part of restoration activities designed to move current conditions closer to desired conditions for vegetation and related riparian and aquatic resources. The full range of mechanical treatment activities will be available for use on forested lands within RCAs, but will only occur when their use will avoid long-term degradation of desired conditions for soil, water, riparian, and aquatic resources. The potential for temporary and short-term impacts to these resources would likely vary by alternative because the area of mechanically treated lands and the type of treatment may vary by alternative.

Suited Timberland Acres On Sites Predicted To Be Landslide Prone - The incidence of slope failure can be influenced by timber management activities. Harvest practices that reduce, below threshold levels, the capacity of roots to help anchor soil to the underlying bedrock, and practices that increase soil moisture on inherently unstable sites, can increase the likelihood of landslide events. This is especially true on non-cohesive soil types, on steep sites, and on sites where the shape of the slope or underlying geological features naturally cause subsurface soil moisture to be concentrated.

Management direction for all alternatives includes provisions designed to reduce or eliminate adverse affects from vegetation management practices within RCAs, and to reduce the likelihood of slope failure on landslide prone areas. Provisions include standards that modify management activities, and requirements to locate and evaluate potential landslide prone areas.

Table T-14 shows the acres of tentatively suited timberlands identified as not appropriate for timber production within RCAs and on landslide prone areas. The area identified as not appropriate for timber production varies by alternative representing the combined effects of land allocation to the various management prescription categories, efforts to meet the intent of interim measures included in the Pacfish and Infish Environmental Assessments and biological opinions for bull trout and steelhead, and the different alternative themes. Appendix B provides additional details describing which riparian conservation areas and landslide prone areas are identified as not appropriate for timber production.

Table T-14. Acres Not Appropriate for Timber Production in RCAs and on Landslide Prone Areas by Alternative

Forest	Alt. 1B	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
Boise	245,600	190,000	180,400	67,700	0	77,600	144,300
Payette	89,200	61,600	73,800	3,600	0	41,100	56,600
Sawtooth	84,800	44,500	53,100	6,600	0	11,300	33,600
Ecogroup Totals	**419,600**	**296,100**	**307,300**	**77,900**	**0**	**130,000**	**234,500**

Table T-15 describes the percentage reduction of suited timberlands as compared to the total lands identified as appropriate for timber production prior to adjustments for RCAs and landslide prone concerns. RCAs and landslide prone areas did not influence the area identified as suited timberlands for Alternative 5. Riparian area and landslide prone concerns associated with Alternative 5 are addressed by applying timber management practices that will not impair attainment of long-term goals for riparian or aquatic resources, nor increase the frequency of landslide events.

Table T-15. Percent of Suited Timberlands Reclassified as Not Appropriate for Timber Production Due to RCAs and Landslide Prone Areas by Alternative

Forest	Alt. 1B	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
Boise	21.0	20.3	21.7	87.9	0.0	19.0	21.5
Payette	16.9	14.7	16.5	100.0	0.0	14.6	14.6
Sawtooth	17.9	18.1	19.0	22.2	0.0	20.0	19.2
Ecogroup Totals	**19.3%**	**18.5%**	**19.7%**	**70.6%**	**0.0%**	**17.4%**	**19.0%**

Long-term Sustained Yield Capacity (LTSYC)

The long-term sustained yield capacity represents the highest uniform yield of wood that may be sustained under a specified management emphasis. The LTSYC also represents the volume of wood that may be produced while meeting all management requirements for protection of other resources. The following table (T-16) identifies the LTSYC for each Forest, and for the Ecogroup, for each alternative. The amounts shown are decadal volumes.

Table T-16. Long-term Sustained Yield Capacity in Millions of Cubic Feet

Forest	Alt. 1B	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
Boise	167.3	148.0	126.4	1.6	276.0	70.7	113.3
Payette	140.6	81.5	83.2	0.0	240.1	73.4	83.6
Sawtooth	48.0	32.8	35.5	4.6	95.2	7.8	23.7
Ecogroup Totals	**355.9**	**262.3**	**245.1**	**6.2**	**611.3**	**151.9**	**120.3**

Allowable Sale Quantity (ASQ)

The ASQ describes the maximum volume of timber that may be harvested from suited lands during a specified period, usually 10 years. The ASQ is different for each alternative because the area identified as suited timberland varies, as does management emphasis. The ASQ volume cannot be exceeded during a given decade, but the maximum volume allowed is not presented as a guaranteed harvest volume. The ASQ for a given alternative is dependent on the area identified as suited timberland, current inventory of timber on those lands, and the management actions associated with each alternative. The actual volume offered is the aggregate of individual project proposals, and is dependent on a number of factors including annual budgets, and organizational capabilities. The ASQ for each alternative is described in the following tables for the next five decades for each Forest (T-17 through T-19), and then summarized for the entire Ecogroup, Table T-20 and Figure T-2.

Table T-17. ASQ* for The Boise National Forest for the Next Five Decades by Alternative

Alternative	Decade 1		Decade 2		Decade 3		Decade 4		Decade 5	
	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet
1B	720.0	139.6	702.2	139.6	732.4	139.6	743.1	139.6	750.6	139.6
2	511.5	101.6	526.3	101.6	528.6	101.6	511.6	101.6	546.0	101.6
3	381.3	76.3	390.7	76.3	393.8	76.3	389.7	76.3	402.6	76.3
4	3.8	0.7	3.8	0.7	4.0	0.8	4.1	0.9	4.5	0.9
5	1,300.0	253.5	1,280.0	253.5	1,321.1	253.5	1,339.0	253.5	1,376.5	253.5
6	250.1	49.6	250.0	49.6	254.9	49.6	246.9	49.6	262.8	49.6
7	450.0	88.4	452.6	88.4	466.5	88.4	469.6	88.4	481.2	88.4

*ASQ is expressed in millions of board feet and millions of cubic feet.

Table T-18. ASQ* for The Payette National Forest for the Next Five Decades by Alternative

Alternative	Decade 1		Decade 2		Decade 3		Decade 4		Decade 5	
	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet
1B	600.0	117.4	583.4	117.4	592.7	117.4	629.1	117.4	626.5	117.4
2	193.0	38.0	193.0	38.0	195.6	38.3	275.0	53.0	276.5	56.7
3	238.2	47.1	241.3	47.1	246.4	47.7	291.6	57.4	296.2	58.7
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	1,113.0	217.1	1,098.2	217.1	1,117.4	217.1	1,138.9	217.1	1,149.0	217.1
6	161.1	33.3	167.8	33.3	188.6	36.9	248.2	48.8	269.7	52.4
7	325.0	63.8	326.5	63.8	334.2	63.8	325.5	63.8	350.8	64.9

*ASQ is expressed in millions of board feet and millions of cubic feet.

Table T-19. ASQ* for The Sawtooth National Forest for the Next Five Decades by Alternative

Alternative	Decade 1		Decade 2		Decade 3		Decade 4		Decade 5	
	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet
1B	157.9	30.3	161.2	30.3	155.0	30.3	197.3	37.5	198.6	37.5
2	98.0	18.9	99.6	18.9	98.1	18.9	101.1	18.9	102.5	18.9
3	61.4	11.7	98.9	18.8	99.5	18.8	174.4	32.7	173.3	32.7
4	0.0	0.0	3.2	0.6	3.2	0.6	19.1	3.7	19.5	3.7
5	483.0	92.5	482.4	92.5	478.4	92.5	489.1	92.5	496.5	92.5
6	3.8	0.7	11.7	2.2	11.8	2.2	22.6	4.4	22.6	4.4
7	117.0	22.6	118.4	22.6	117.5	22.6	119.5	22.6	120.2	22.6

*ASQ is expressed in millions of board feet and millions of cubic feet.

Table T-20. ASQ* for The Ecogroup for the Next Five Decades by Alternative

Alternative	Decade 1		Decade 2		Decade 3		Decade 4		Decade 5	
	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet	Board Feet	Cubic Feet
1B	1,477.9	1,446.8	1,480.1	1,569.5	1,575.7	1,477.9	1,446.8	1,480.1	1,569.5	1,575.7
2	802.5	818.9	822.3	887.7	925.0	802.5	818.9	822.3	887.7	925.0
3	680.9	730.9	739.7	855.7	872.1	680.9	730.9	739.7	855.7	872.1
4	3.8	7.0	7.2	23.2	24.0	3.8	7.0	7.2	23.2	24.0
5	2,896.0	2,860.6	2,916.9	2,967.0	3,022.0	2,896.0	2,860.6	2,916.9	2,967.0	3,022.0
6	415.0	429.5	455.3	517.7	555.1	415.0	429.5	455.3	517.7	555.1
7	892.0	897.5	918.2	914.6	5,362.2	892.0	897.5	918.2	952.2	5,362.2

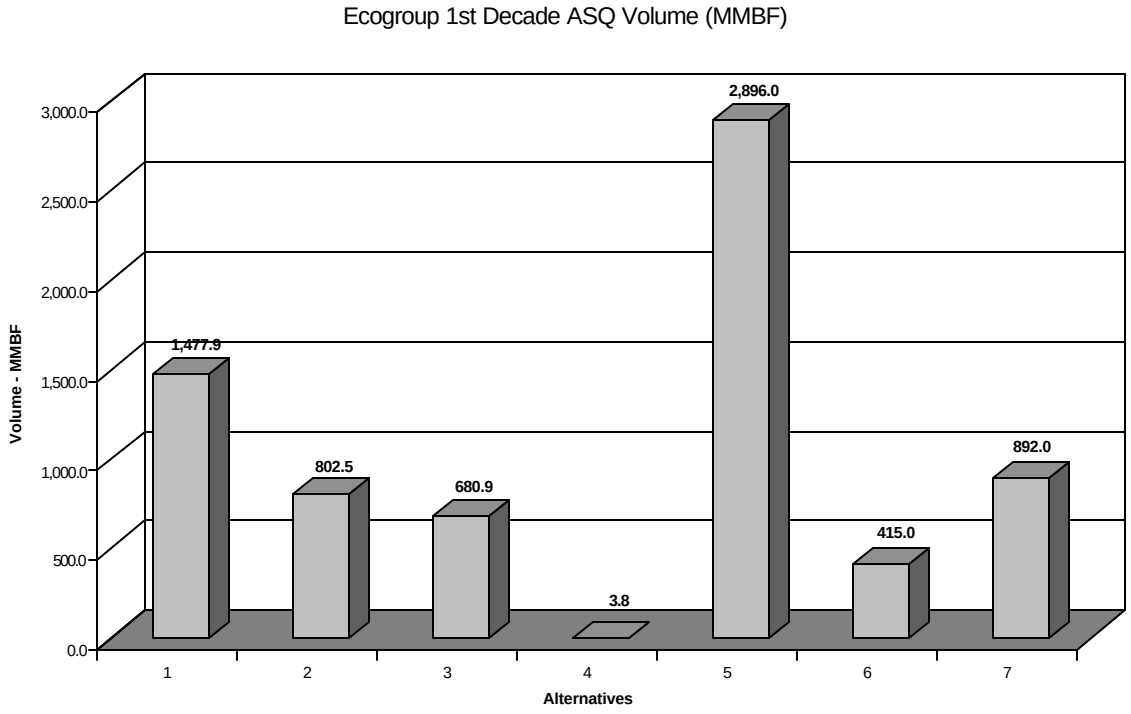
*ASQ is expressed in millions of board feet and millions of cubic feet.

Management actions associated with each alternative reflect the allocation of management prescription categories (MPCs) to individual subwatersheds and other identified areas. As previously stated, MPCs define whether the area includes suited timberland. The MPC allocations also reflect management emphasis. Therefore, management actions associated with each alternative are based on the combination of MPCs. The MPCs are described in Chapter 2.

Timber harvest occurs in all alternatives but the amount and purpose varies by MPC. Timber harvest is prohibited in MPCs 1.1, and 1.2. In all other area timber harvest may occur but, where harvest activities occur on not suited timberlands (areas not allocated to MPCs 4.2, 5.1, 5.2, 6.1 and 6.2) the timber volume removed does not count toward accomplishment of ASQ. Timber removed from suited timberlands does contribute to ASQ volume. However, timber management on suited timberlands is balanced with or used to support attainment of other resource management goals and desired conditions. Timber management is emphasized only in areas allocated to MPC 5.2. Management

emphasis associated with the mix of MPCs in each alternative influence both the volume, and the size of trees harvested. For example, an alternative that emphasizes maintenance and restoration of resource conditions will generally result in less timber harvest with small trees comprising a higher percentage of the volume as compared to an alternative with prescriptions that emphasize a high level of sustainable commodity and non-commodity outputs.

Figure T-2. ASQ Volume by Alternative for the Ecogroup in the First Decade



Data—including the allocation of lands to an MPC, identification of suited timberlands, current vegetation conditions from LANDSAT imagery, budget constraints, and identification of vegetation treatment activities—were provided for use in the SPECTRUM model. The SPECTRUM model calculated decade-by-decade outcomes, including changes in vegetation growth stage, acres treated by type of treatment activity, and timber harvest volumes. A complete description of the SPECTRUM model is found in Appendix B.

Effects of Alternative 1B - Alternative 1B represents the direction of the current forest plans as amended by the Pacfish and Infish environmental assessments, and as being implemented to comply with the biological opinions for Steelhead and Bull Trout. For the Boise and the Payette National Forests, ASQ volume has been modified from the current plans, reflecting that timberlands within RCAs and on landslide prone areas are no longer available for timber production. The ASQ volume described for the current Forest Plans was thus reduced by an estimated 15.3 percent on the Boise National

Forest and 20.6 percent on the Payette National Forest to arrive at the ASQ volume for Alternative 1B. On the Sawtooth National Forest, volume was calculated in the SPECTRUM model. Timberlands within RCAs and on landslide prone areas are treated the same on the Sawtooth National Forest as they are on the Boise and the Payette National Forests – they are not available for timber production. The following table describes the volume of timber by size class, and annual ASQ volume for the first decade.

Table T-21. Alternative 1B Total Annual ASQ Volume and Volume by Size Class for the First Decade

Forest	First Decade Annual ASQ Volume, Millions of Board Feet		
	Small Trees (5.0 to 11.9 inch diameter)	Medium and Large Trees (12 inch diameter)	Total Volume
Boise	0.4	71.6	72.0
Payette	0.1	59.9	60.0
Sawtooth	0.8	14.9	15.8
Total	1.3	146.4	147.8

Effects of Alternative 2 - Alternative 2 was designed to address "Need for Change" issues. ASQ volumes of 26.5 MMBF for the Boise National Forest, 21.7 MMBF for the Payette National Forest, and 4.3 MMBF for Sawtooth National Forest, were applied in the SPECTRUM model as a constraint or minimum volume to be achieved, provided other constraints could also be met. This volume represents the average amount purchased from the Ecogroup Forests during the period 1997 through 2001. This level of volume output will result in maintaining recent timber supply quantities coming from National Forest System lands, thus helping to maintain the current level of mill capacity. It will also assist in maintaining a viable timber industry, thus maintaining the availability of timber harvest as a tool to help achieve land and resource objectives. The model was designed to achieve at least 90 percent of the average volume purchase between 1997 and 2001 to identify the ASQ volume for this alternative. The following table displays the annual volume of timber by size class and total ASQ volume for the first decade.

Table T-22. Alternative 2 Total Annual ASQ Volume and Volume by Size Class for the First Decade

Forest	First Decade Annual ASQ Volume, Millions of Board Feet		
	Small Trees (5.0 to 11.9 inch diameter)	Medium and Large Trees (12 inch diameter)	Total Volume
Boise	3.3	47.9	51.2
Payette	0.3	19.0	19.3
Sawtooth	0.4	9.4	9.8
Total	4.0	76.3	80.3

Effects of Alternative 3 - Alternative 3 was designed to provide for the restoration of watershed and vegetation resources. The purpose of restoration is to maintain or enhance the resiliency of these resources thereby reducing risks associated with disturbance events. The ASQ volume established in the same way it was for Alternative 2. The model was designed to achieve at least 90 percent of the average volume purchase between 1997 and 2001 to identify the ASQ volume for this alternative. This volume objective was applied in the SPECTRUM model as a constraint provided other constraints could also be met. This level of volume output will result in maintaining recent timber supply quantities coming from National Forest System lands, thus helping to maintain the current level of mill capacity. It will also assist in maintaining a viable timber industry, thus maintaining the availability of timber harvest as a tool to help achieve land and resource objectives. The following table displays the annual ASQ volume, and volume of timber by size class for the first decade.

Table T-23. Alternative 3 Total Annual ASQ Volume and Volume by Size Class for the First Decade

Forest	First Decade Annual ASQ Volume, Millions of Board Feet		
	Small Trees (5.0 to 11.9 inch diameter)	Medium and Large Trees (12 inch diameter)	Total Volume
Boise	3.1	35.1	38.1
Payette	0.4	23.4	23.8
Sawtooth	0.1	6.0	6.1
Total	3.6	64.5	68.0

Effects of Alternative 4 - Alternative 4 was designed in a manner that provides for the development of vegetation largely through processes of plant growth, succession, and disturbance patterns due to insect activity, fire, and climate (e.g., wind, drought, snow, and ice). The objective for vegetation is for its development toward a desired condition that minimizes human disturbance while relying on natural processes. Relatively few acres were allocated to MPCs that include suited timberlands. Restoration and other management activities designed to move vegetation toward desired conditions provide the basis for determining the ASQ level for this alternative. Harvest activities and associated volumes were derived from the SPECTRUM model. The following table displays the annual ASQ volume, and volume of timber by size class for the first decade.

Table T-24. Alternative 4 Total Annual ASQ Volume and Volume by Size Class for the First Decade

Forest	First Decade Annual ASQ Volume, Millions of Board Feet		
	Small Trees (5.0 to 11.9 inch diameter)	Medium and Large Trees (12 inch diameter)	Total Volume
Boise	0.0	0.4	0.4
Payette	0.0	0.0	0.0
Sawtooth	0.0	0.0	0.0
Total	0.0	0.4	0.4

Effects of Alternative 5 - Alternative 5 was designed to provide a high level of sustainable goods and services, while also maintaining ecological functions. Alternative 5 also incorporates management requirements for protection of other resources. Allocation of lands to MPCs that include suited timberlands and a greater emphasis on management activities that allow timber harvest were used to derive estimated ASQ volume through the SPECTRUM model. The following table displays the annual ASQ volume, and volume of timber by size class for the first decade.

Table T-25. Alternative 5 Total Annual ASQ Volume and Volume by Size Class for the First Decade

Forest	First Decade Annual ASQ Volume, Millions of Board Feet		
	Small Trees (5.0 to 11.9 inch diameter)	Medium and Large Trees (12 inch diameter)	Total Volume
Boise	4.5	125.5	130.0
Payette	2.3	109.0	111.3
Sawtooth	0.3	48.0	48.3
Total	7.1	282.5	289.6

Effects of Alternative 6 - Alternative 6 was based on the theme of no further road construction in unroaded areas, generally 1,000 acres or larger in size, nor in inventoried roadless areas. MPCs allocated to these inventories roadless and unroaded areas do not include suited timberlands. The remaining lands, outside of inventoried roadless and unroaded areas, were allocated to MPCs similar to that found is Alternative 2. The following table displays the annual ASQ volume, and volume of timber by size class for the first decade.

Table T-26. Alternative 6 Total Annual ASQ Volume and Volume by Size Class for the First Decade

Forest	First Decade Annual ASQ Volume, Millions of Board Feet		
	Small Trees (5.0 to 11.9 inch diameter)	Medium and Large Trees (12 inch diameter)	Total Volume
Boise	2.5	22.6	25.1
Payette	0.8	15.3	16.1
Sawtooth	0.0	0.4	0.4
Total	3.3	38.3	41.6

Effects of Alternative 7 - Alternative 7 was based on the theme of no further road construction in inventoried roadless areas, restoration and maintenance of high-priority habitat and watershed conditions, hazard reduction, and production of a sustainable and predictable supply of goods and services. MPCs allocated to nearly all inventoried roadless areas do not include suited timberlands. Lands allocated to MPCs that allow for suited timberlands focus on economic production and restoration of the suited lands. The SPECTRUM model was designed to achieve 90 percent of potential volume production from these suited timberlands, while also reducing fire and insect hazard by a goal of 50 percent and achieving at least 90 percent of the desired vegetation conditions. The following table displays the annual ASQ volume, and volume of timber by size class for the first decade.

Table T-27. Alternative 7 Total Annual ASQ Volume and Volume by Size Class for the First Decade

Forest	First Decade Annual ASQ Volume, Millions of Board Feet		
	Small Trees (5.0 to 11.9 inch diameter)	Medium and Large Trees (12 inch diameter)	Total Volume
Boise	1.1	43.9	45.0
Payette	0.0	32.5	32.5
Sawtooth	0.0	11.7	11.7
Total	1.1	88.1	89.2

Total Sale Program Quantity (TSPQ)

TSPQ is the total volume of timber anticipated for harvest. This volume includes the harvest of timber that constitutes the ASQ (from suited timberlands), and additional timber volume resulting from vegetation management actions that take place as part of restoration activities or harvesting designed to contribute to the attainment of resource objectives and desired conditions. Timber harvested from unsuited timberlands is part of the TSPQ but is not accounted for as part of the ASQ. Therefore, volume contributing to TSPQ may come from both suited and not suited timberlands. In areas allocated to MPCs that allow mechanical treatment activities, the full range of management actions may be used on both suited and unsuited timberlands. TSPQ volume generally increases in those alternatives that are associated with greater emphasis on active restoration of vegetation.

TSPQ volume is summarized for each alternative in tables T-28 through T-31, and is graphically displayed for the Ecogroup in Figure T-3. The volume for each Forest is shown as the total TSPQ volume (ASQ plus additional volume) per decade for each of the next five decades.

Table T-28. TSPQ* for The Boise National Forest for the Next Five Decades by Alternative

Alternative	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
1B	723.0	703.3	734.1	750.5	758.9
2	700.4	545.2	557.6	749.2	636.5
3	613.3	392.7	517.5	617.4	504.9
4	160.0	80.7	116.9	316.6	110.9
5	1,300.0	1,279.9	1,321.1	1,339.0	1,376.5
6	275.7	256.0	262.9	282.3	290.5
7	662.7	531.8	565.2	784.1	606.1

*TSPQ is expressed in millions of board feet.

Table T-29. TSPQ* for The Payette National Forest for the Next Five Decades by Alternative

Alternative	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
1B	618.7	583.4	615.9	658.9	629.1
2	362.9	218.7	241.0	342.5	303.7
3	481.7	264.9	325.1	518.3	301.2
4	93.9	22.5	31.7	290.1	101.6
5	1,126.2	1,098.2	1,124.1	1,154.1	1,149.3
6	180.0	173.4	198.8	288.5	288.1
7	402.7	348.4	384.4	532.3	368.8

*TSPQ is expressed in millions of board feet.

Table T-30. TSPQ* for The Sawtooth National Forest for the Next Five Decades by Alternative

Alternative	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
1B	164.3	161.4	155.8	216.4	203.3
2	180.8	100.1	112.9	166.0	105.9
3	183.2	135.2	137.8	268.3	197.0
4	44.6	19.9	29.9	68.8	37.2
5	505.0	482.6	479.5	509.8	198.8
6	10.9	13.0	13.9	40.2	40.8
7	294.3	118.4	115.5	205.5	138.0

* TSPQ is expressed in millions of board feet.

Table T-31. TSPQ* for The Ecogroup for the Next Five Decades by Alternative

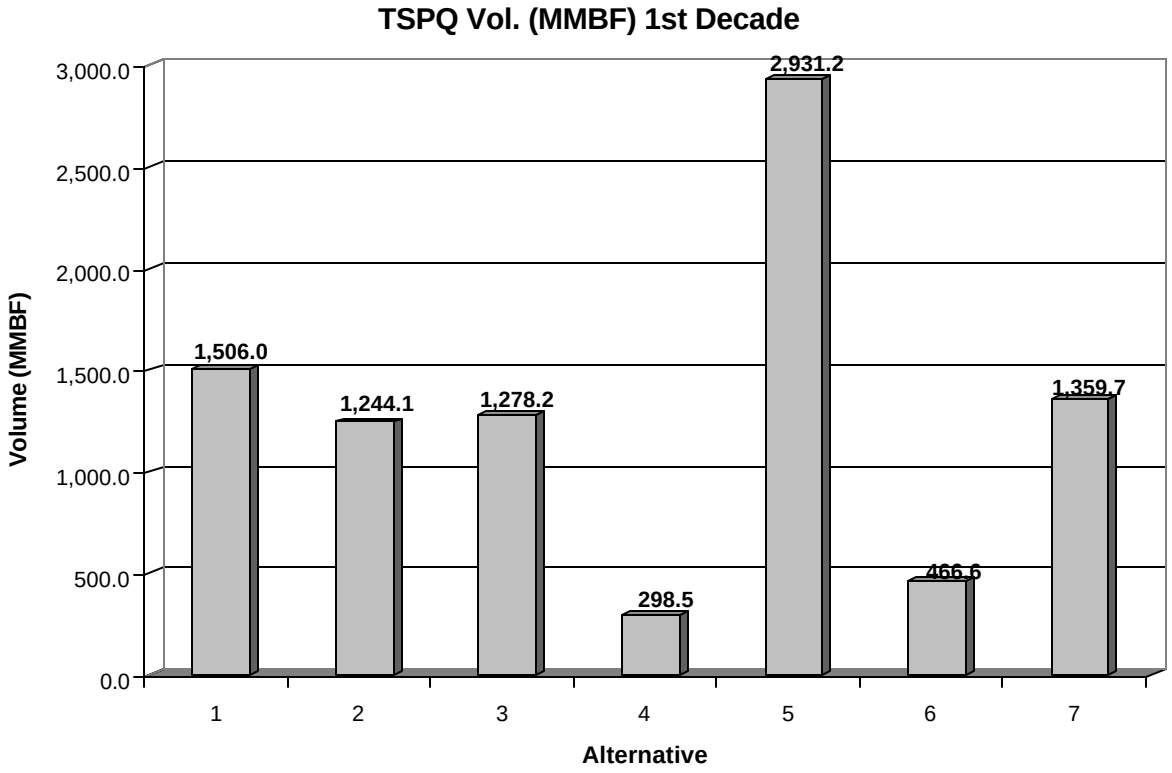
Alternative	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
1B	1,506.0	1,448.1	1,505.8	1,625.8	1,591.3
2	1,244.1	864.0	911.5	1,257.7	1,046.1
3	1,278.2	792.8	980.4	1,404.0	1,003.1
4	298.5	123.1	178.5	675.5	249.7
5	2,931.2	2,860.7	2,924.7	3,002.9	2,724.6
6	466.6	442.4	475.6	611.0	619.4
7	1,359.7	998.6	1,065.1	1,521.9	1,112.9

* TSPQ is expressed in millions of board feet.

Effects of Alternative 1B - TSPQ volume for Alternative 1B consists of the ASQ volume and additional volume estimates. The additional volume estimated for each Forest during the first 2 decades is:

Boise National Forest:	0.2 million board feet per year
Payette National Forest	0.9 million board feet per year
Sawtooth National Forest	0.3 million board feet per year.

Figure T-3. TSPQ by Alternative for the Ecogroup



Effects of Alternative 2 - TSPQ volume for Alternative 2 consists of the ASQ volume and additional volume estimates. The additional volume estimated for each Forest during the first 2 decades is:

Boise National Forest:	10.4 million board feet per year
Payette National Forest	9.8 million board feet per year
Sawtooth National Forest	4.2 million board feet per year.

Effects of Alternative 3 - TSPQ volume for Alternative 3 consists of the ASQ volume and additional volume estimates. The additional volume estimated for each Forest during the first 2 decades is:

Boise National Forest:	11.7 million board feet per year
Payette National Forest	13.4 million board feet per year
Sawtooth National Forest	7.9 million board feet per year.

Effects of Alternative 4 - TSPQ volume for Alternative 4 consists of the ASQ volume and additional volume estimates. The additional volume estimated for each Forest during the first 2 decades is:

Boise National Forest:	11.7 million board feet per year
Payette National Forest	5.8 million board feet per year
Sawtooth National Forest	3.1 million board feet per year.

Effects of Alternative 5 - TSPQ volume for Alternative 5 consists of the ASQ volume and additional volume estimates. The additional volume estimated for each Forest during the first 2 decades is:

Boise National Forest:	none during the first 2 decades
Payette National Forest	0.7 million board feet per year
Sawtooth National Forest	1.1 million board feet per year.

Effects of Alternative 6 - TSPQ volume for Alternative 6 consists of the ASQ volume and additional volume estimates. The additional volume estimated for each Forest during the first 2 decades is:

Boise National Forest:	1.6 million board feet per year
Payette National Forest	1.2 million board feet per year
Sawtooth National Forest	0.4 million board feet per year.

Effects of Alternative 7 - TSPQ volume for Alternative 6 consists of the ASQ volume and additional volume estimates. The additional volume estimated for each Forest during the first 2 decades is:

Boise National Forest:	14.6 million board feet per year
Payette National Forest	5.0 million board feet per year
Sawtooth National Forest	8.9 million board feet per year.

Cumulative Effects

Forested Land Identified as Tentatively Suited

Tentatively suited timberlands are determined from an assessment of National Forest System lands. The assessment identifies those lands that are not available and capable of being managed for timber production. This results in the identification of National Forest lands that do not and cannot support forest vegetation, lands that have been formally withdrawn from timber production, such as designated wilderness, forested lands where restocking of tree seedlings can not be assured within 5 years following timber harvest, and lands where timber production may result in irreversible resource damage to soils productivity, or watershed conditions. Of the items considered in this assessment the identification of National Forest System lands, and the lands formally withdrawn from timber production, are the only items that may have a cumulative affect on the identification of tentatively suited timberlands.

Changes in the area administered by the individual Ecogroup Forests will be the same for each alternative. The net change in area administered by each forest is expected to by relatively minor,

resulting from relatively small increases or decreases due to land exchanges and acquisitions. Any change in area administered by the Ecogroup Forests would be expected to have only minor, non-significant changes in the area identified as tentatively suited. For example, the Ecogroup Forests realized a net increase of approximately 7,400 acres of tentatively suited timberlands due to land exchanges, from the time each Forest Plan was published up to October 1997. This represents an increase of less than **one-half** of 1 percent. This small Ecogroup-wide change in tentatively suited timberland, resulting from land exchanges, would also be true for each Forest individually.

Areas that have been formally withdrawn from timber production include designated wilderness areas, Research Natural Areas, and wild segments of Wild and Scenic Rivers. Forested lands in these withdrawn areas are not available for timber production and are thus classified as not suited. The Forest Plan EIS Record Of Decision does not result in the withdrawal of any areas from timber production but may recommend areas for formal designation. Formal withdrawal requires specific action on the part of Congress, the Secretary of Agriculture, or the Chief of the Forest Service. Decisions made by Congress, the Secretary, or the Chief may be different from the recommendations associated with the Record of Decision. The area recommended for wilderness designation for the entire Ecogroup is described below for each alternative. If Congress formally designates these areas as wilderness the area identified as tentatively suited timberlands would then be reduced by the amount of tentatively suited timberlands within the withdrawn areas. This is also described below for each alternative.

Effects of Alternatives 1B, 2, 3, 6, and 7

Area recommended for wilderness designation:	654,600 acres
Area of tentatively suited timberland in recommended wilderness:	248,900 acres

Effects of Alternative 4

Area recommended for wilderness designation:	2,526,900 acres
Area of tentatively suited timberland in recommended wilderness:	1,260,000 acres

Effects of Alternative 5

Area recommended for wilderness designation:	None
Area of tentatively suited timberland in recommended wilderness:	None

Acres of Tentatively Suited Lands Identified as Appropriate for Timber Management

Lands considered as being appropriate for timber management, also referred to as suited timberlands, are identified separately for each alternative. Decisions to be made in the Record of Decision will include the determination of how many acres are appropriate for timber management. This is a direct effect of the decision. This decision will not result in any cumulative effects.