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. The area being reassessed includes National Forest System lands administered by the Boise, Payette, and Sawtooth National Forests. These three Forests are collectively referred to as the Southwest Idaho Ecogroup. Other ownerships within the Forest boundaries, or adjacent lands are not included in the reassessment.

ASSESSMENT PROCEDURES

Reassessment of tentatively suited timberlands was done in accordance with Forest Plan regulations 36 CFR § 219.14 and Forest Service Handbook FSH 2409.13 chapter 20. The National Forest Management Act requires that, as a minimum, lands previously identified as not suited be reassessed at least every 10 years. Since current efforts to revise the Forest Plans coincide with the need to reassess not suited timberlands, a complete reassessment of suited timberlands was performed. This allowed for a comprehensive examination of the status of timberlands on each National Forest, accounting for changes since the previous assessment of timberlands. Some of these changes include changes in land ownership, increased knowledge and experience with reforestation efforts, and increased knowledge and experience with timber management effects on soils and water quality.

Assessment of tentatively suited timberlands was accomplished utilizing Geographic Information System (GIS). Using GIS provides consistent identification of each of the following data elements:

- Net National Forest land area administered by each Forest.
- National Forest lands that have been withdrawn from timber production.
- National Forest lands that are not forested.
- Areas that are physically unsuited for timber production due to the inability to assure adequate restocking, or irreversible damage to soils or watersheds.

The forested lands remaining after identifying the unsuitable lands are those that are available and capable of timber production, also referred to as tentatively suited. The process for assessing suited timberlands is displayed in Figure E-1.

Procedures for conducting the assessment using GIS, and other sources of data are described in Table E-1and E-2. Table E-1 refers to all of the Ecogroup area except for that portion of the Sawtooth National Forest south of the Snake River – the Minidoka Ranger District. The area south of the Snake River does not have a classified LANDSAT image; however, stand level data is complete for this area, thus providing a different set of data for assessing timberland suitability.

Figure E-1. Process for Determining Timberland Suitability

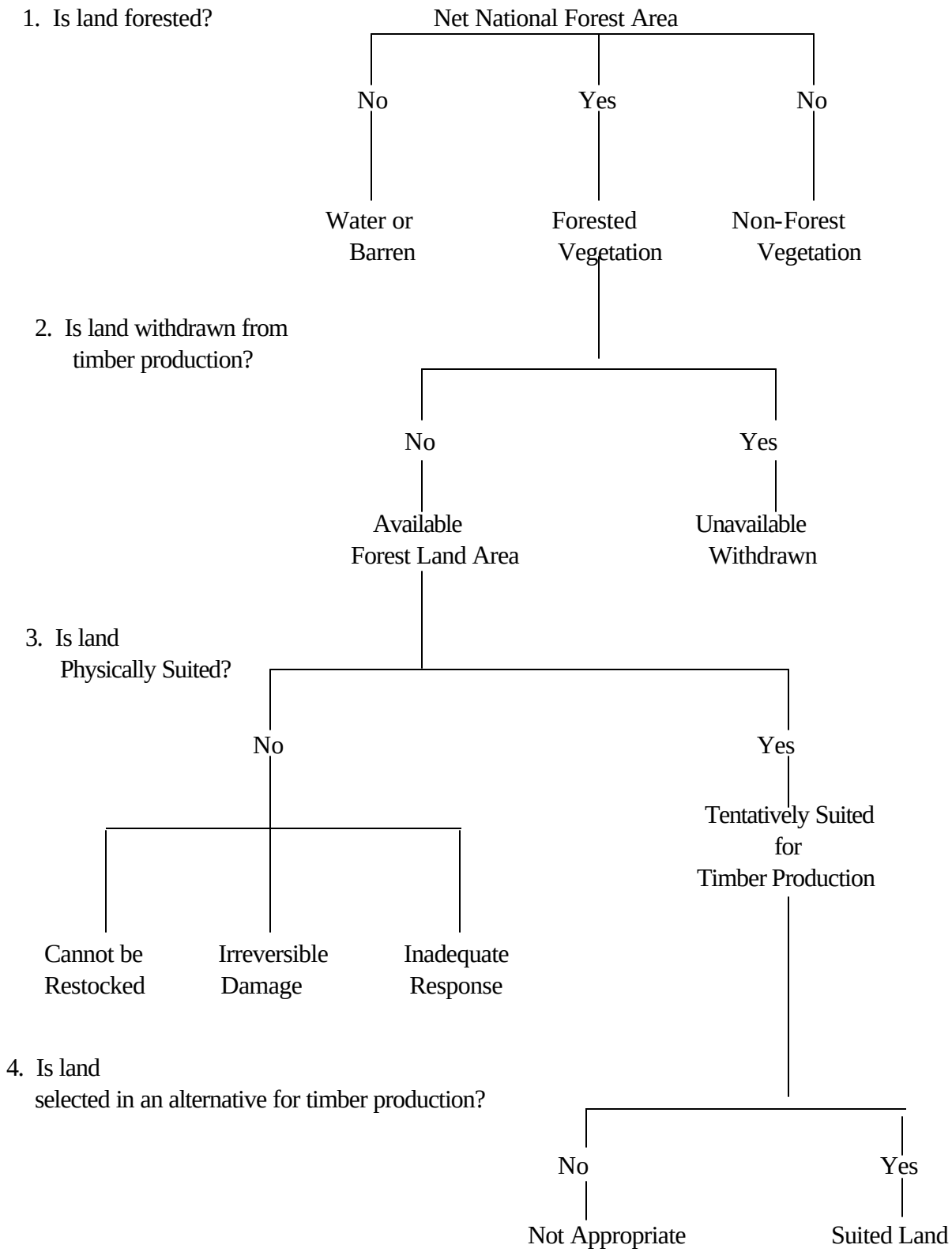


Table E-1. Procedures and Data Sources for Determining Tentatively Suited Timberlands

Steps For Assessing Tentatively Suited Lands	Data Sources
1) Determine net National Forest land area for each National Forest.	Lands data in GIS
2) Identify National Forest lands that have been withdrawn from timber production including: • Designated wilderness areas. • Research Natural Areas. • Wild segments of wild and scenic rivers (outside of wilderness areas). • Experimental Forests • Other withdrawn areas	Each of the identified items should be available from GIS data layers.
3) Identify non-forested lands. These lands include: • Potential Vegetation Group 99 (non forest vegetation – Grasslands and shrubland) PVG 99 also includes areas dominated by rock and other barren (non –vegetated areas) • Roads (see note below) • Streams (only "double line" streams) • Lakes, ponds and reservoirs >= 2 acre is size. • Utility right-of-way corridors • State and county roads on National Forest lands • Electronic sites • Administrative sites (unless previously identified in step 2 as areas withdrawn from timber production). • Developed campgrounds The products resulting from completion of steps 1, 2 and 3 will be • Identification of available forested lands, • Identification of unavailable withdrawn lands, • And non-forested lands.	Non-forest vegetation cover comes from the modeling of Potential Vegetation Groups. Roads data will come from the GIS roads layer in the SWIEG library. Streams data will come from the GIS hydrostreams layer in the SWIEG library. Lakes, ponds, etc. data will come from the GIS hydropoly layer in the SWIEG library. The remaining items identified here should be available from several GIS data layers. The remaining items identified here should be available from several GIS data layers.
4) Identification of physically unsuited lands. These lands will include all forested lands in Potential Vegetation Groups 1 and 11.	Potential Vegetation Models.
5) All remaining National Forest administered lands in Potential Vegetation Groups 2 through 10 will be classified as tentatively suited for timber production (area identified in Step 1 minus combined area identified in steps 2, 3 and 4).	Potential Vegetation Models

Table E-2. Procedures and Data Sources for Determining Tentatively Suited Timberlands for the Minidoka Ranger District, Sawtooth National Forest

Steps For Assessing Tentatively Suited Lands	Data Sources
1) Determine net National Forest land area for the Burley/Twin Falls Ranger District.	Lands data in GIS
2) Identify National Forest lands that have been withdrawn from timber production including: • Research Natural Areas. • Wild segments of wild & scenic rivers (outside of wilderness areas) • Other withdrawn areas	Each of the identified items should be available from GIS data layers.
3) Identify non-forested lands. These lands are mapped as • Potential Vegetation Group 99 (non forest vegetation – Grasslands and shrubland) PVG 99 also includes areas dominated by rock and other barren (non –vegetated areas) • Roads • Streams (only "double line" streams) • Lakes, ponds and reservoirs >= 2 acre is size. • Utility right-of-way corridors • State and county roads on National Forest lands • Electronic sites • Administrative sites (unless previously identified in step 2 as areas withdrawn from timber production). • Developed campgrounds The products resulting from completion of steps 1, 2 and 3 will be • Identification of available forested lands, • Identification of unavailable withdrawn lands, and • Non-forested lands.	Non-forest vegetation cover for the Sawtooth National Forest, South Hills comes from the PVG map and database. Roads data will come from the GIS roads layer in the SWIEG library. Streams data will come from the GIS hydrostreams layer in the SWIEG library. Lakes, ponds, etc. data will come from the GIS hydropoly layer in the SWIEG library. The remaining items identified here should be available from several GIS data layers.
4) Identification of physically unsuited lands. These lands will include all forested lands in Potential Vegetation Groups 11, 70, and 71. All remaining National Forest administered lands in Potential Vegetation Groups 3, 4, and 10 will be classified as tentatively suited for timber production.	Sawtooth National Forest, South Hills PVG map and database.
5) All remaining National Forest administered lands in Potential Vegetation Groups 3, 4, and 10 will be classified as tentatively suited for timber production (area identified in Step 1 minus combined area identified in steps 2, 3 and 4).	Sawtooth National Forest, South Hills PVG map and database.

*Cover type descriptions are included in the documentation for the LANDSAT classification conducted by the Wildlife Spatial Analysis Lab, Montana Cooperative Wildlife Research Unit at the University of Montana in Missoula. The report was submitted to the Boise National Forest in January 1998 and is titled, "LANDSAT Vegetation Mapping of the Southwest and Central Idaho Ecogroups".

Tentatively Suited Timberlands

Lands identified in the assessment of 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 allowable sale quantity for each Forest. 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. Table E-3 provides a summary of the results of the assessment of tentatively suited timberlands for the proposed revised forest plan.

Table E-3. Tentatively Suited Timberland Acres Within the Ecogroup Area

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		3,312,000			

Table E-4 provides a comparison with the tentatively suited timberland data for the original Forest Plans (Boise NF – 1990, Payette NF – 1988, Sawtooth NF – 1987). Differences between the tentatively suited acreage of the original plans and the tentatively suited acreage derived from the assessment for the revised forest plan revision 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 E-4. Tentatively Suited Timberlands, Comparison of Original and Revised Forest Plans

National Forest	Original Plans Tentatively Suited Acres	Revised Forest Plan Tentatively Suited Acres	Difference in Acres	Percent of Original Forest Plan Tent. Suited Acres
Boise	1,272,000	1,475,100	+ 203,100	116%
Payette	821,000	1,109,300	+ 288,300	135%
Sawtooth	240,640	715,000	+ 474,360	297%
Total	2,333,640	3,299,400	+ 969,360	141%

The large difference indicated for the Sawtooth National Forest is due primarily to the method used in assessing tentatively suited timberlands for the original 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. After being identified as tentatively suited, individual areas 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. Table E-5 provides a detailed comparison of the tentatively suited timberlands for the Sawtooth National Forest for the original and the revised Plans.

Table E-5. Tentatively Suited Timberlands Comparing Original Forest Plan and Forest Plan Revision Assessments for the Sawtooth National Forest

Land Classification	Original Forest Plan Acres	Revised Forest Plan Acres
1. Net National Forest System lands	2,101,000	2,111,000
2. Non-forest Land (includes water, and non-vegetated areas)	1,412,000	1,020,000
3. Forest Land (item 1 minus item 2	689,000	1,091,000
4. Forested Land withdrawn from timber production	204,000	112,000
5. Forest land not capable of producing crops of industrial wood	0	52,700
6. Forest land physically unsuitable --Irreversible damage likely to occur --Not restockable within 5 years	244,000	211,300
7. Forest land--inadequate information	0	0
8. Tentatively suitable forest land (Item 3 minus items 4, 5, 6, and 7)	241,000	715,000

Item 2: The current Forest Plan includes forested land that is not capable of producing at least 20 cubic feet per acre per year.

Item 4: The current Forest Plan included 145,675 acres of proposed wilderness in the SNRA. Lands that are formally withdrawn include the lands in the Sawtooth Wilderness area not previously identified in item 2, non-vegetated and non-forested vegetation, or 57,931 acres.

Acres Of Tentatively Suited Lands In Inventoried Roadless Areas

Inventoried roadless areas do not vary by alternative, and thus, the acres of tentatively suited timberland that occur within inventoried roadless area do not change by alternative. While the assessment of tentatively suited timberlands is not influenced by the inventory of roadless areas, the allocation of management prescription categories determines which tentatively suited timberlands are appropriate for timber management, including those within inventoried roadless areas. Table E-6 summarizes the acres of tentatively suited timberland within inventoried roadless areas in each Forest.

Table E-6. Tentatively Suited Acres Within Ecogroup Inventoried Roadless Areas

Forest	Inventoried Roadless Area Acres	Tentatively Suited Timberland Acres within Inventoried Roadless Areas
Boise	1,108,522	729,100
Payette	908,200	635,800
Sawtooth	1,225,500	497,400
Ecogroup Totals	**3,242,222**	**1,862,300**

Data from the two tables above (Tables E-4 and E-6) reveals that an estimated 56 percent of the tentatively suited timberland acres in the Ecogroup area are located within inventoried roadless areas (Boise NF – 49 percent, Payette NF – 57 percent, and Sawtooth NF – 70 percent).

Area Identified As Appropriate for Timber Production

Tentatively suited forestlands are further analyzed to determine the total area appropriate for timber production. Suited timberlands are determined separately for each alternative. Only suited timberlands can be managed for regular and predictable timber outputs. The identification of suited timberlands is based on the issues being addresses by each alternative, and subsequent land use allocations. This means that 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 an objective and where it is compatible with other land and resource goals and objectives. Forested lands that are within riparian conservation areas or on landslide prone sites are addressed separately in each alternative based on the theme of the alternative.

Tentatively suited lands (forested lands in potential vegetation groups 2 through 10) were generally identified as suited timberlands, for the proposed forest plans, for lands where timber management is one of the goals. Establishing goals and objectives was accomplished in part by assigning management prescription categories (MPCs) to individual subwatersheds or other identified areas, e.g., Natural Research Areas, Designated Wilderness Areas, Inventoried Roadless Areas, etc. 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 4.2, 5.1, 5.2, 6.1, and 6.2 define tentatively suited timberland as suited timberland. Some areas allocated to MPC 2.1, Recreational or Scenic segments of eligible Wild and Scenic Rivers may also be identified as suited timberlands. Timberlands in all other MPCs are not suited. Tables E-7 through E-9 display the tentatively suited, and suited timberlands for the proposed forest plan for each National Forest in the Ecogroup. The tables also provide a comparison with the original Forest Plan acres.

Table E-7. Boise National Forest Suited Timberland Classification

Classification	Original Forest Plan Acres	Revised Forest Plan Acres
1. Non-forest Land (includes water)	309,000	532,800
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 E-8. Payette National Forest Suited Timberland Classification

Classification	Original Forest Plan Acres	Revised Forest Plan Acres
1. Non-forest Land (includes water)	168,000	311,200
2. Forest Land	2,128,000	1,998,100
3. Forested Land withdrawn from timber production	655,000	682,900
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	195,900
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 E-9. Sawtooth National Forest Suited Timberland Classification

Classification	Original Forest Plan Acres	Revised 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.

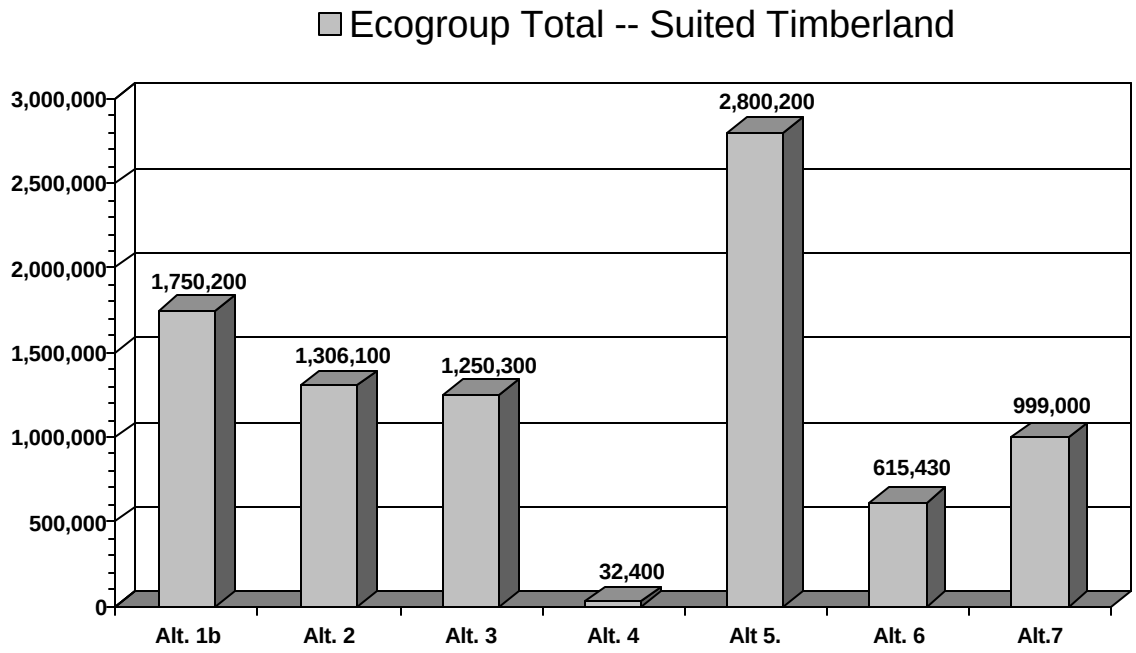
** In the Forest plan, disaggregate the acreage of lands identified as not appropriate for timber production by: (a) minimum management requirements; (b) multiple-use objectives; and (c) cost efficiency (FSH 2409.13-23).

The MPC assignments incorporated a variety of concerns, including past and current management emphasis, current resource conditions, resolution of issues, and whether the subwatershed included tentatively suited timberland and associated timber management goals. Although MPCs 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 assignments for each alternative have resulted in the following acres being identified as appropriate for timber management (Table E-10 and Figure E-2).

Table T-10. 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 Total	**1,750,200**	**1,306,100**	**1,250,300**	**32,400**	**2,800,200**	**615,430**	**999,000**

Figure E-2. 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 assignments affect the amount of suited timberlands in each alternative. Two of these factors are riparian and landslide-prone areas that have been delineated for special protection.

Suited Timberland Acres Within Riparian Conservation Areas and On Predicted Landslide Prone Sites

Forested lands within Riparian Conservation Areas (RCAs) are defined as not suited timberlands in Alternatives 1B, 2, 3, 4, 6, and 7. Forested lands within RCAs 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 not retard long-term attainment of desired conditions for riparian and aquatic resources. The potential for short-term impacts to riparian and aquatic resources would likely vary by alternative because the area of mechanically treated lands and the type of treatment may vary by alternative.

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 slopes, and on sites where the shape of the slope naturally causes a concentration of subsurface soil moisture. Tentatively suited forestlands on predicted high risk landslide prone sites are defined as not suited in Alternatives 1B, 3, 4, and 7. In Alternative 4 tentatively suited lands on predicted moderate and low risk landslide prone sites are also defined as not suited for timber production.

When applying data to the SPECTRUM model the MPC acres were adjusted to reflect a different level of vegetation management for many of the RCAs and predicted landslide prone sites. The MPC acres within an RCA or on a predicted landslide prone site were shifted to other MPCs to reflect the intent or theme of the alternative. For example, in Alternative 2, the area within RCAs in MPC 3.1 will be managed similar to other lands outside of the RCA in MPC 3.1 (MPC Group 3) and thus there is no change. However, the area within RCAs in MPCs 4.2, 5.1, and 6.1 (MPC Group 5) or MPCs 5.2 and 6.2 (MPC group 6) will be managed similar to areas that would fall into MPC 3.2 (MPC Group 3). Similar adjustments are made for landslide prone sites depending on the alternative and the landslide prone hazard rating. No adjustments were made for stable sites outside of RCAs. The following tables (E-11 through E-14) display adjustments to suited timberland acres accounting for those acres that are within RCA or on predicted landslide prone sites.

Table E-11. Adjustments to MPCs to Reflect RCA Management by Alternative

Current MPC	MPC Group	Alt. 1B	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
1.1	7	NC	NC	NC	NC	NC	NC	NC
1.2, 2.1, 2.2, 4.1a, 4.1b	1	NC	NC	NC	NC	NC	NC	NC
4.1c, 2.4	2	NC	NC	NC	3.1	NC	3.1	3.1
3.1	3	NC	NC	NC	NC	NC	NC	NC
3.2, 4.3, 8.0	4	NC	NC	NC	3.1	NC	3.1	3.1
4.2, 5.1, 6.1	5	3.1	3.2	3.2	3.1	NC	3.1	3.2
5.2, 6.2	6	3.1	3.2	3.2	3.1	5.1	3.1	3.2

NC = No Change.

Table E-12. Adjustments to MPCs for High Risk LSP Area Management by Alternative

Current MPC	MPC Group	Alt. 1B	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
1.1	7	NC	NC	NC	NC	NC	NC	NC
1.2, 2.1, 2.2, 4.1a, 4.1b	1	NC	NC	NC	NC	NC	NC	NC
4.1c, 2.4	2	NC	NC	NC	3.1	NC	NC	3.1
3.1	3	NC	NC	NC	NC	NC	NC	NC
3.2, 4.3, 8.0	4	NC	NC	NC	3.1	NC	NC	3.1
4.2, 5.1, 6.1	5	3.1	NC	3.2	3.1	NC	NC	3.2
5.2, 6.2	6	3.1	5.1	3.2	3.1	5.1	5.1	3.2

NC = No Change

Table E-13. Adjustments to MPCs for Moderate Risk LSP Area Management by Alternative

Current MPC	MPC Group	Alt. 1B	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
1.1	7	NC	NC	NC	NC	NC	NC	NC
1.2, 2.1, 2.2, 4.1a, 4.1b	1	NC	NC	NC	NC	NC	NC	NC
2.3, 4.1c	2	NC	NC	NC	3.1	NC	NC	NC
3.1	3	NC	NC	NC	NC	NC	NC	NC
3.2, 4.3, 8.0	4	NC	NC	NC	3.1	NC	NC	NC
4.2, 5.1, 6.1	5	NC	NC	NC	3.1	NC	NC	NC
5.2, 6.2	6	5.1	NC	5.1	3.1	NC	NC	5.1

NC = No Change

Table E-14. Adjustments to MPCs for Low Risk LSP Area Management by Alternative

Current MPC	MPC Group	Alt. 1B	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
1.1,	7	NC	NC	NC	NC	NC	NC	NC
1.2, 2.1, 2.2, 4.1a, 4.1b	1	NC	NC	NC	NC	NC	NC	NC
2.3, 4.1c	2	NC	NC	NC	NC	NC	NC	NC
3.1	3	NC	NC	NC	NC	NC	NC	NC
3.2, 4.3, 8.0	4	NC	NC	NC	NC	NC	NC	NC
4.2, 5.1, 6.1	5	NC	NC	NC	3.2	NC	NC	NC
5.2, 6.2	6	NC	NC	5.1	3.2	NC	NC	NC

NC = No Change

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

and evaluate potential landslide prone sites. Table E-15 shows the acres of tentatively suited timberlands identified as not appropriate for timber production within RCAs and on landslide prone sites, in accordance with the adjustments described in tables E-11 through E-14 above. Table E-15 applies to Alternatives 1B, 2, 3, 4, and 6. No adjustments to suited timberlands were made for Alternative 5.

Table E-15. Acres Not Appropriate for Timber Production in RCAS and Landslide Prone Sites 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 Total	**419,600**	**296,100**	**307,300**	**77,900**	**0**	**130,000**	**234,500**

Table E-16 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 sites 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 E-16. Percent of Suited Timberlands Reclassified as Not Appropriate for Timber Production due to RCAs and Landslide Prone Sites 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 Total	**19.3%**	**18.5%**	**19.7%**	**70.6%**	**0.0%**	**17.4%**	**19.0%**

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 (E-17 through E-19), and then summarized for the entire Ecogroup area, Table E-20 and Figure E-3.

Table E-17. ASQ* for 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 E-18. ASQ* for 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 E-19. ASQ* for 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.

Figure E-3. ASQ Volume by Alternative for the Ecogroup in the First Decade

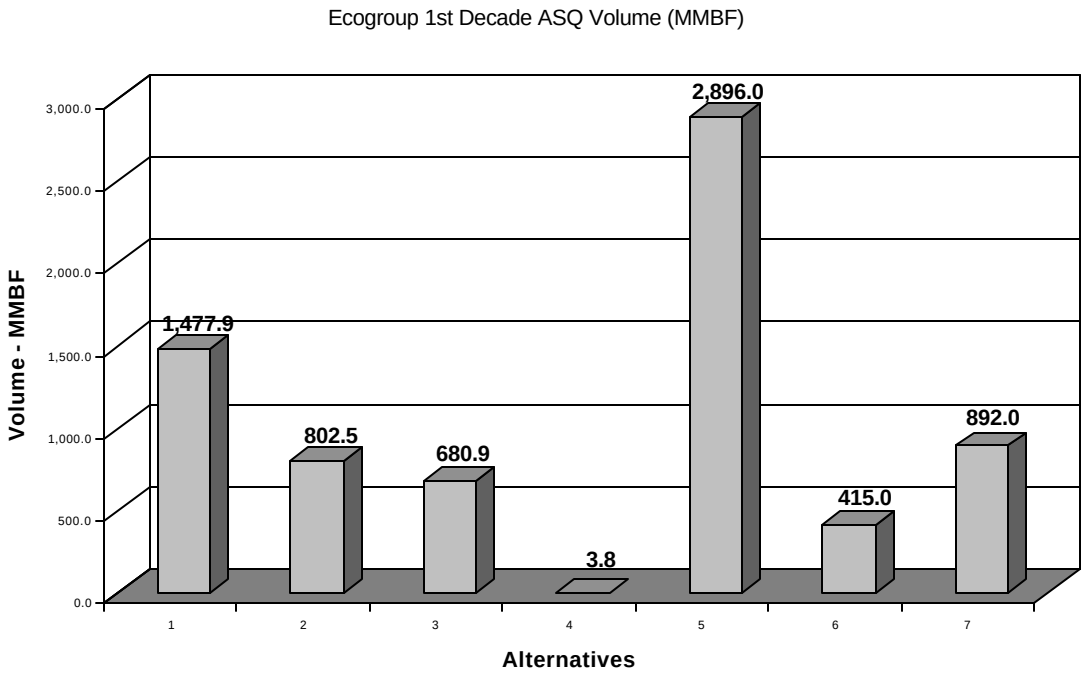


Table E-20. ASQ* for The Ecogroup for the Next Five Decades by Alternative

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 activities associated with each alternative reflect the allocation of management prescription categories (MPCs). As previously stated, MPCs define whether the area includes suited timberland. The MPCs also reflect management emphasis for each subwatershed. Therefore, management activities associated with each alternative are based on the combination of MPCs. The MPCs, described in Chapter 2 are listed below.

1.1 Existing Wilderness
1.2 Recommended Wilderness
2.1 Wild and Scenic Rivers (Eligible, Suitable and Designated)
2.2 Research Natural Areas
2.3 Boise Basin Experimental Forest
3.1 Passive Restoration and Maintenance of Aquatic, Terrestrial, and Hydrologic Resources
3.2 Active Restoration and Maintenance of Aquatic, Terrestrial, and Hydrologic Resources
4.1a Undeveloped Recreation, Maintain Inventoried Roadless Areas
4.1b Undeveloped Recreation, Maintain Undeveloped Character with Allowance for Salvage Harvest
4.1c Undeveloped Recreation, Maintain Unroaded Character with Allowance for Restoration Activities
4.2 Roaded Recreation Emphasis
4.3 Rural/Urban Recreation
5.1 Restoration and Maintenance within Forested Landscapes
5.2 Commodity Production Emphasis within Forested Landscapes
6.1 Restoration and Maintenance within Grassland/Shrubland Landscapes
6.2 Commodity Production within Shrubland and Grassland Landscapes
8.0 Concentrated Development

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 MPCs 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. Commodity 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.

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, was 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.

The new Alternative 7 in the FEIS 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 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 being designed to reduce fire and insect hazard by a goal of 50 percent while achieving at least 90 percent of the desired vegetation conditions. Table E-21 displays the annual ASQ volume, and volume of timber by size class for the first decade.

Table E-21. 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
Totals	**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 allowable sale quantity (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 E–22 through E-25, and is graphically displayed for the Ecogroup in Figure E-4. 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 E-22. TSPQ* for 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 E-23. TSPQ* for 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 E-24. TSPQ* for 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 E-25. 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.

The TSPQ for the proposed forest plan, as described by Alternative 7, consists of the ASQ volume and additional volume estimates. Additional volume estimated for each Forest during the first two 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.

Figure E-4. TSPQ by Alternative for the Ecogroup