INTRODUCTION

Of the vast array of resources managed within national forests, few resources spark as much debate as roadless areas. These generally unroaded and undeveloped areas may include features that make them suitable for future wilderness designation. For this reason, the public is keenly interested in their location and extent, and the effects of any proposed management activities (or their restrictions) within these areas. Please refer to Table C-2 for a summary of wilderness areas and other federal lands within the State of Idaho.

Inventoried Roadless Areas

On the Payette, Boise, and Sawtooth National Forests, Inventoried Roadless Areas (IRAs) were initially identified during the Roadless Area Resource Evaluation of 1972 (also known as RARE I) and the RARE II of 1979. These inventories were updated and areas were re-evaluated for wilderness suitability as part of the initial forest planning efforts completed on the Payette, Boise, and Sawtooth National Forests in 1988, 1990, and 1987, respectively. As part of the current Forest Plan revision process on these Forests, the inventories were further reviewed and updated. During the re-inventory process, changes were made to the roadless area boundaries based on project-level development and by examining boundaries for areas that may have been missed for inclusion. Roadless area boundaries were adjusted to reflect project developments such as timber harvest units, new road construction, and utility corridors; undeveloped areas missed in previous inventories; and areas that have changed, over time, affecting their eligibility for classification as roadless and undeveloped. Roadless acreages also changed due to the use of new technology (GIS) to determine acreages of defined areas. The number of individual IRAs also changed from what existed during the initial round of planning. In two separate cases, two Ecogroup IRAs that were previously divided only by administrative boundaries were combined into one IRA. Some IRAs were divided into two separate IRAs when road omissions were corrected. Three new IRAs were also identified on the Boise National Forest and added to the inventory. Two IRAs were dropped from the inventory entirely when recent development and a bisecting utility line were considered.

Definitions

Inventoried Roadless Areas (IRAs)

Those areas identified in a set of inventoried roadless area maps, contained in Forest Service Roadless Area conservation, Final Environmental Impact Statement, Volume 2, dated November 2000, which are held at the National headquarters of the Forest Service, or any update, correction, or revision of those maps. Refer to Table C-5 for a listing of IRAs, their location and acreage.

Wilderness Areas

Lands designated by Congress as wilderness on the Sawtooth, Payette, and Boise National Forests through public law in 1972, 1975 and 1980. Refer to Table C-4 for a listing of wilderness areas, their location and acreage.

Changes to the Roadless Inventory for each Forest are illustrated in Figures C-1, C-2, C-3, and C-4. The updated inventory was included in the Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2, (USDA Forest Service 2000). Further refinements to a few IRA boundaries were identified after publication of the Roadless Area Conservation documents and these adjusted boundaries were used in all analyses for the Final Environmental Impact Statement. The Forests are currently waiting for the development of National direction regarding the formal IRA boundary modification process to reflect the refinements that were made after November 2000.

The revised Roadless Inventory is displayed by the roadless maps for each Forest that are included in the Forest Plan revision maps packet. A complete list of the IRAs, the Forests on which they are located, and acreage is included in Table C-8.

Roadless Inventory Criteria

Criteria for determining whether an area of National Forest System land qualifies as an Inventoried Roadless Area are provided in Forest Service Handbook 1909.12, which states:

> Roadless areas qualify for placement on the inventory of potential wilderness if, in addition to meeting the statutory definition of wilderness, they meet one or more of the following criteria:
>
> 1. They contain 5,000 acres or more.
> 2. They contain less than 5,000 acres but:
>   a. Due to physiography or vegetation, they are manageable in their natural condition.
>   b. They are self-contained ecosystems such as an island.
>   c. They are contiguous to existing wilderness, primitive areas, Administration-endorsed wilderness, or roadless areas in other Federal ownership, regardless of their size.
> 3. They do not contain improved roads maintained for travel by standard passenger-type vehicles, except as permitted in areas east of the 100th meridian.

Despite their name, Roadless areas ***can*** contain low-standard "roads". As noted above under the third criteria, only roads that are improved and maintained are excluded from IRAs. As such, classified roads and other roads that were designed, constructed, and maintained for access or resource management needs are generally excluded from IRAs. However, a number of IRAs within the Ecogroup contain user-created "roads" or "travelways" that were never designed, planned, physically constructed or maintained. Many people think of these travelways as "roads" and are confused when the surrounding area is referred to as "roadless". In this regard, the "Roadless" label is, in some cases, a somewhat confusing misnomer.

IRAs also generally do not contain structures, improvements, or obvious landscape alterations that would indicate the presence or influences of man. These might include overhead power transmission line corridors, airstrips, electronic communication installations, timber harvest units where logging activity is evident, and other forms of development. These types of facilities and cultured landform features are usually excluded from IRAs when defining IRA boundaries.

Purpose of This Analysis

The purpose of the re-evaluation of roadless areas in this analysis is to review the wilderness suitability of the existing IRAs and to provide information on which to base recommendations for any additions to the National Wilderness Preservation System (NWPS). This appendix includes site-specific information used in the roadless area re-evaluation. This information is considered to be sufficient for initial wilderness or non-wilderness recommendations. This appendix displays the wilderness/non-wilderness allocations by each IRA by alternative. Each roadless area is allocated to various management prescription categories (MPCs) in each planning alternative that would potentially result in four separate outcomes: (a) recommended wilderness recommendation, (b) maintain the undeveloped character, (c) potential low levels of development, or (d) available for a full range of development.

Figure C-1.

Boise National Forest Roadless Area Inventory Changes Since the 1990 Forest PLan

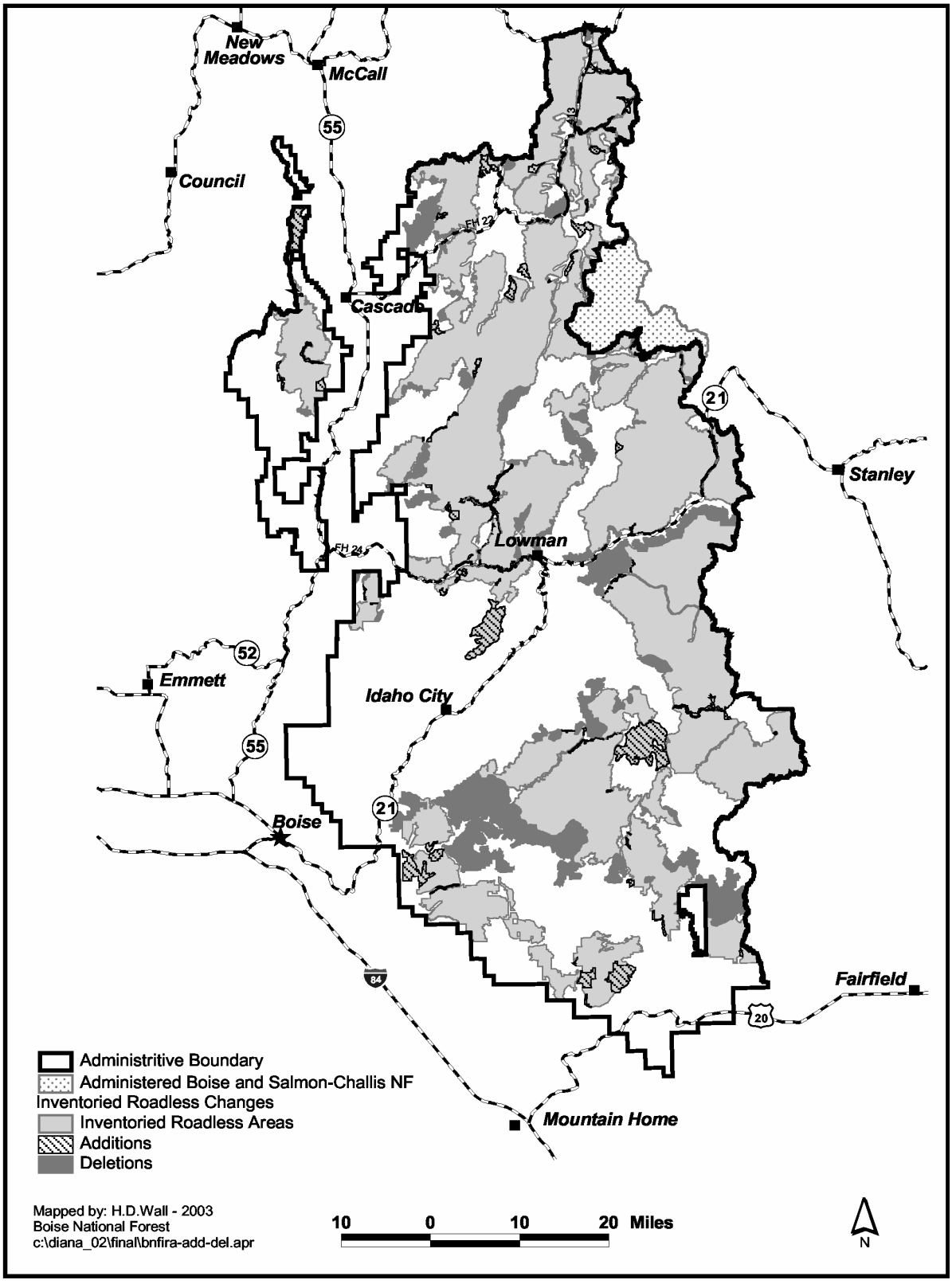


Figure C-2.
Payette National Forest Roadless Area Inventory Changes Since 1988 Forest Plan

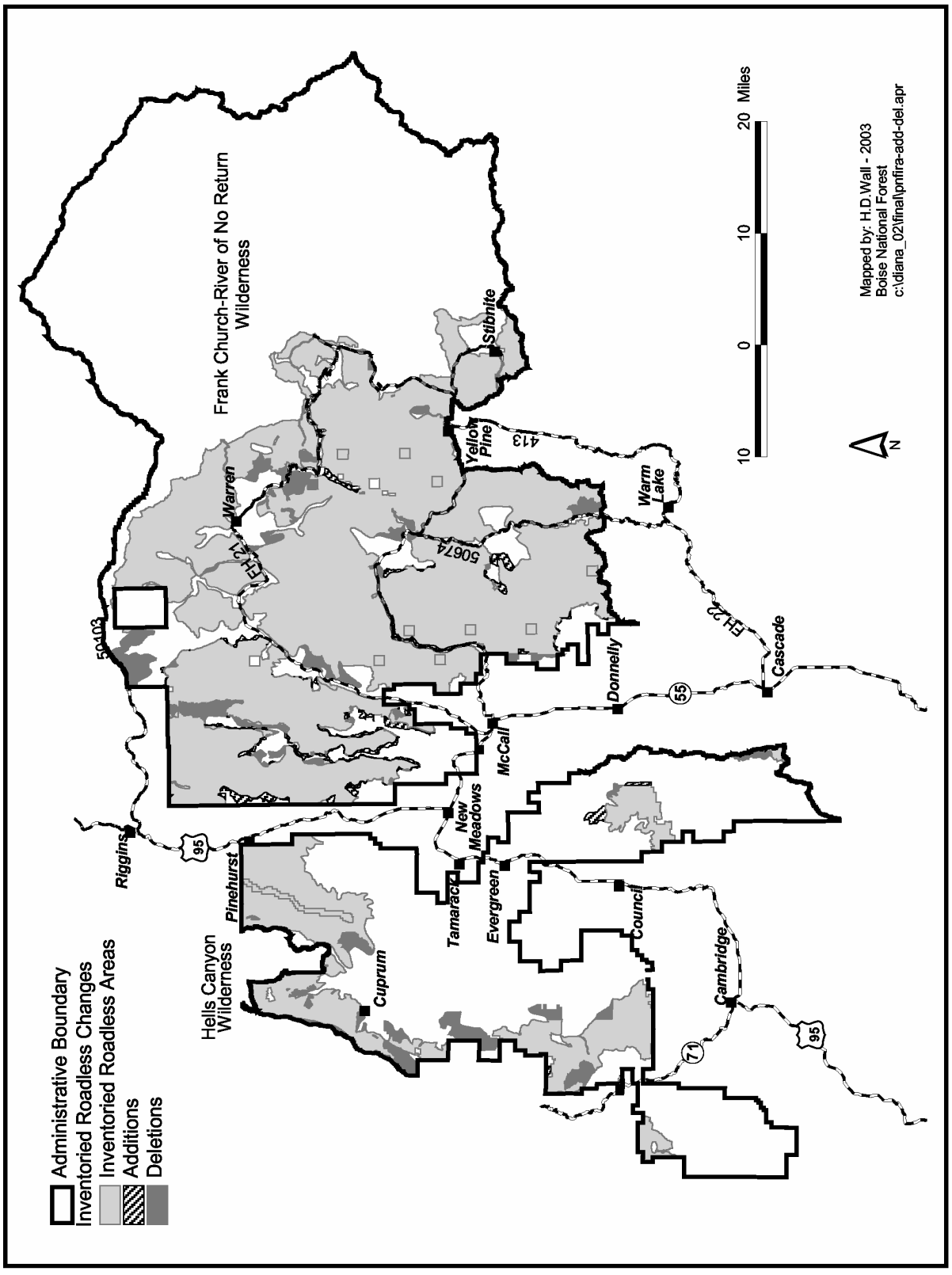


Figure C-3.

Sawtooth National Forest (North) Roadless Area Inventory Changes Since 1987 Forest Plan

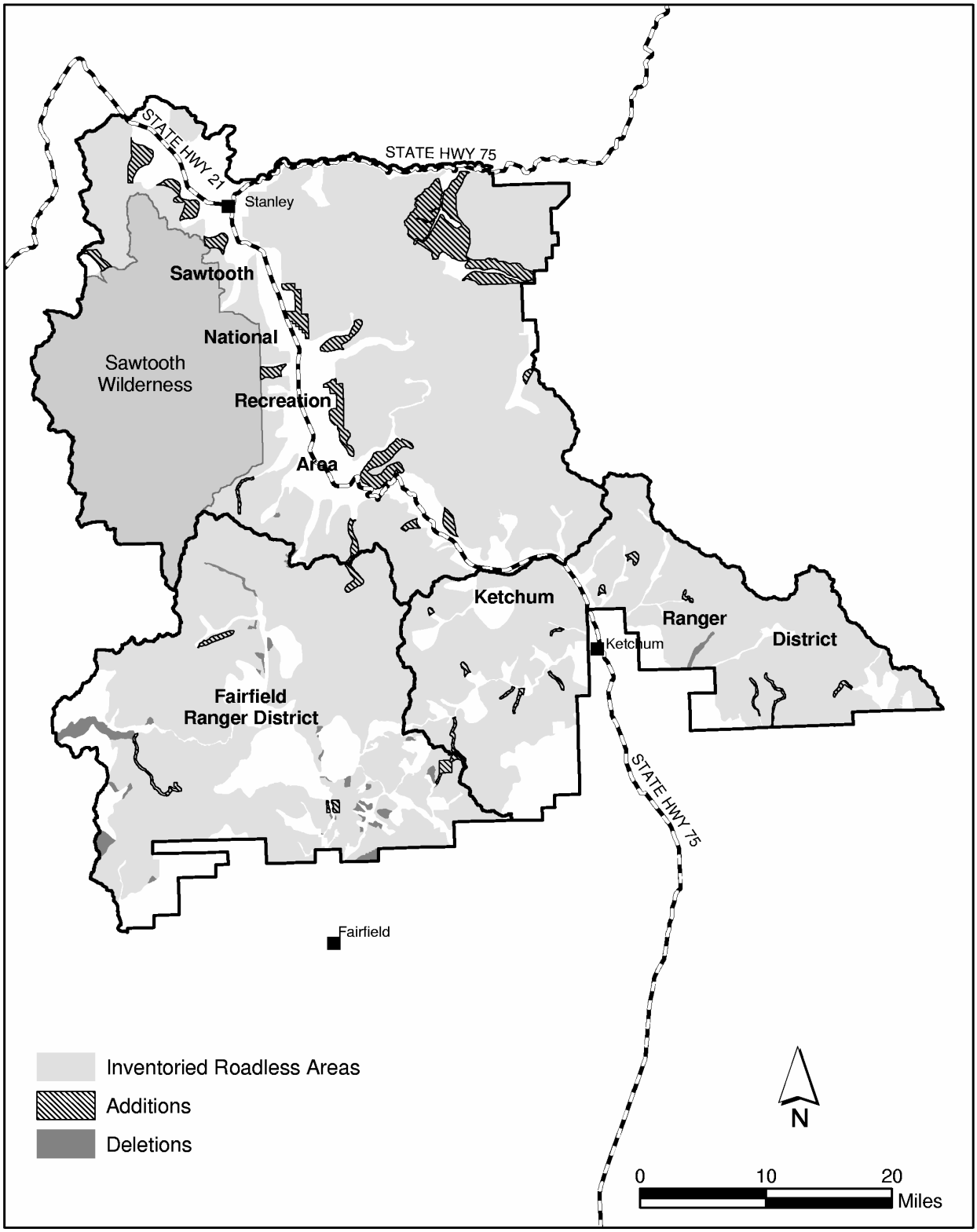
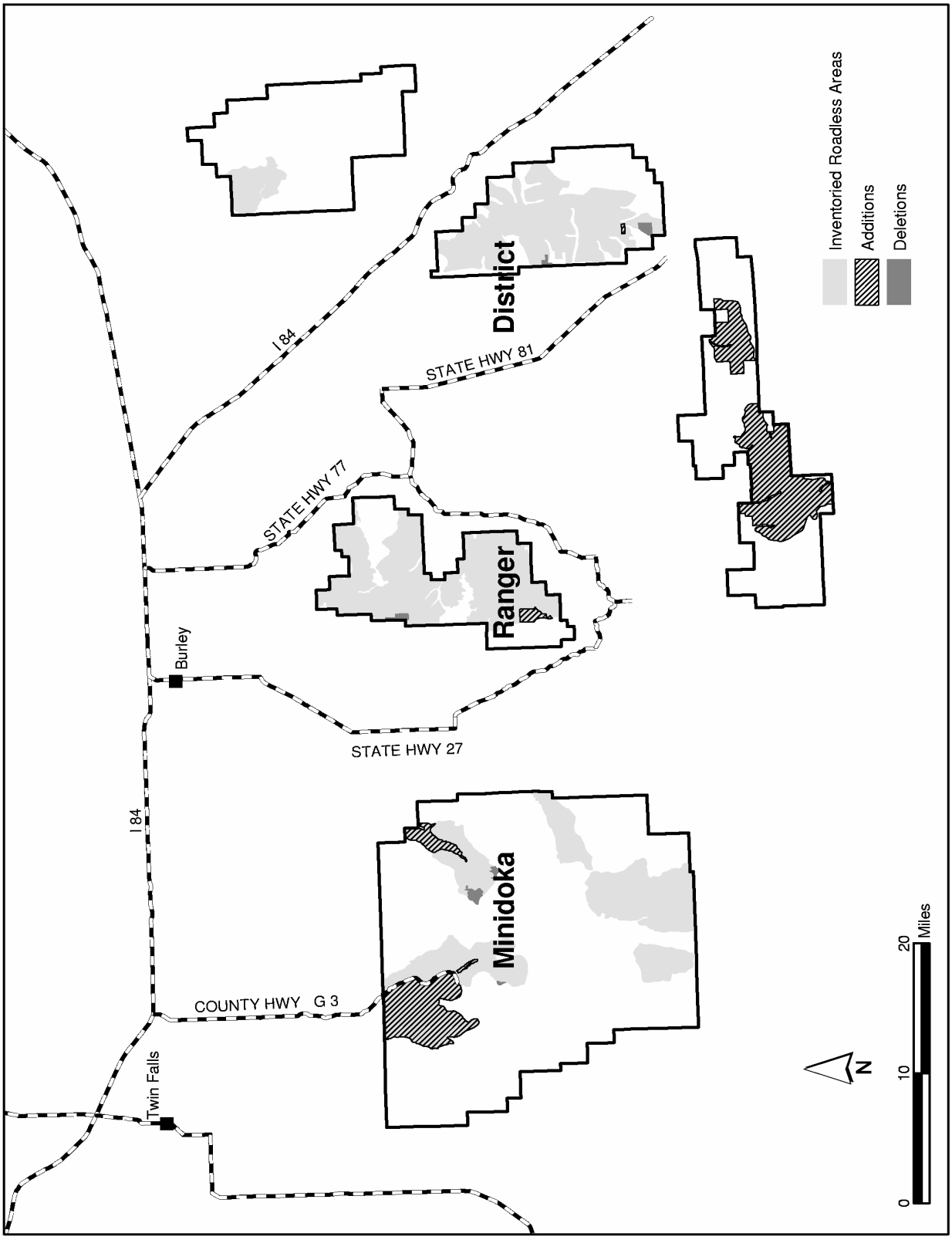


Figure C-4.
Sawtooth National Forest (South) Roadless Area Inventory Changes Since 1987 Forest Plan



Public Involvement in Roadless Area Inventory and Evaluation

Public involvement related to the current Forest Plan revision efforts began in 1997 (see Appendix A). Public involvement activities have included scoping letters and responses, public meetings, personal contacts, and comments on the Draft Environmental Impact Statement (Draft EIS). Specific comments and responses on the roadless area re-evaluation in the Draft EIS can be found in Appendix A to the Final EIS.

Legislative and Planning History of Roadless Area Inventory and Evaluation

The original intent of roadless area analysis was to provide an inventory of the location and extent of roadless areas, and to evaluate them against a set of criteria for their suitability as wilderness areas.

The first nationwide planning effort to inventory and evaluate roadless areas culminated in 1972 with publication of the Roadless Area Resource Evaluation (RARE). This planning document was abandoned in 1973 due to noncompliance with the Natural Resources Policy Act of 1969 (Wyoming Outdoor Coordinating Council vs. Butz.).

In 1977, the Forest Service attempted another nationwide planning effort, RARE II. This analysis was subsequently ruled legally inadequate in 1980 (California vs. Bergland). This decision was appealed by the United States to the Ninth Circuit Court, but the decision was affirmed in 1982 (California vs. Block). No further appeals were filed.

In 1983, the Forest Service published and implemented rules under 36 CFR 219.17 that roadless areas previously studied for wilderness potential would be subject to reevaluation during the Forest Planning process. Direction was issued to Forests for managing roadless areas that were to be reevaluated, including public participation in the reevaluation process. Forest plans were completed on the Payette, Boise, and Sawtooth in 1988, 1990, and 1987, respectively. These plans included recommendations for the IRAs for proposed wilderness, for remaining undeveloped, and for general forest management.

The NMFA regulations require that forest plans are updated or revised every 10-15 years. To meet this requirement, the three National Forests in the Southwest Idaho Ecogroup (Boise, Payette, and Sawtooth) combined to revise their Forest Plans together. In October 1996, revision processes of the three Forest Plans were initiated. NFMA regulations direct that, "Unless otherwise provided by law, roadless areas within the National Forest System shall be evaluated and considered for recommendation as potential wilderness areas during the forest planning process." To meet this requirement, IRAs within the Ecogroup were re-evaluated for wilderness capability, availability, and need. An Ecogroup protocol was developed for this evaluation detailing all process steps and analytical elements that were incorporated. The protocol is available upon request.

SUPPLY AND NEED

The following discussion on supply and need of wilderness and roadless lands focuses on the Ecogroup, the State of Idaho, and National levels.

Wilderness Areas in the Ecogroup, Idaho, and the United States

The acres of Congressionally designated wilderness within the Boise, Payette, and Sawtooth National Forests are displayed in Table C-1, by wilderness area. The percentage of each Forest that is comprised of wilderness is also provided. The Ecogroup contains an estimated 1,050,000 acres of wilderness, or 26 percent of the designated wilderness within Idaho.

Table C-1. Designated Wilderness on the Boise, Payette, and Sawtooth National Forests

Forest	Wilderness Name	Acres	Percent of Forest	Administered By:
Boise	Frank Church – RONR	64,400	3%	Salmon-Challis NF
Payette	Frank Church – RONR	767,700	33%	Payette NF
	Hells Canyon	24,000	1%	Wallowa-Whitman NF
Sawtooth	Sawtooth	217,700	10%	Sawtooth NF

There are approximately 4 million acres of existing wilderness within the State of Idaho and 2.3 million acres of recommended wilderness (Table C-2). Figure C-5 shows the percentage of wilderness areas and IRAs compared to total lands within Idaho. Eight percent of the total land area in the State of Idaho is designated as wilderness, while 21 percent of the land area is within IRAs. There are approximately 3,234,000 acres of IRAs within the Ecogroup, which represents about 29 percent of the inventoried roadless acres within Idaho.

Table C-2. Wilderness Supply and Federal Lands within the State of Idaho

Federal Agency	Total Federal Acres[1]	Existing Wilderness Acres	Recommended Wilderness Acres	Existing Roadless Acres[2]
USDA - Forest Service	20,459,000	3,961,576	1,292,006	9,232,000
USDI - Bureau of Land Management	11,861,600	802	972,239	1,770,743
Department of Energy	586,752	0	0	0
Bureau of Reclamation	475,590	0	0	0
U.S. Air Force	111,741	0	0	0
National Park Service	97,296	43,243	0	0
U.S. Fish & Wildlife Service	89,119	0	0	0
U.S Army Corps of Engineers	54,472	0	0	0
Agricultural Research Service	33,110	0	0	0
Bureau of Indian Affairs	32,632	0	0	0
Totals	**33,801,312**	**4,005,621**	**2,264,245**	**11,002,743**
Total Surface Area Of Idaho = 53,391,522 acres				
Percent of Idaho	63%	8%	4%	21%

[1]Acreages for the Federal Agencies and Total Surface Area of Idaho were taken from; "History and Analysis of Federally Administered Lands in Idaho", Report #16, Idaho Forest, Wildlife and Range Policy Analysis Group (O'Laughlin et al. 1998).

[2]Existing roadless acres include proposed wilderness acres.

Figure C-5. Percentage of the State of Idaho in Designated Wilderness and IRAs

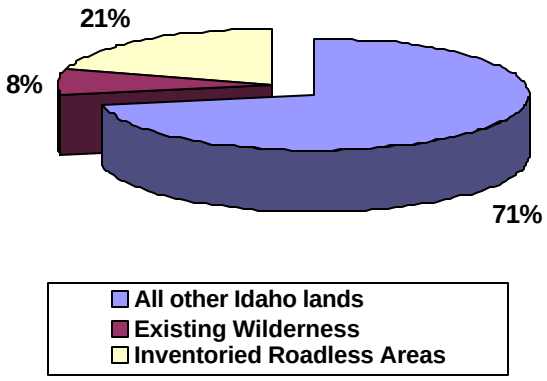


Figure C-6 displays the percentage of wilderness in Idaho compared to the entire National Wilderness Preservation System (NWPS). Idaho contains 4 percent of the total designated wilderness in the United States. Table C-3 lists the number and acreage of wilderness areas by state within the NWPS.

Figure C-6. Percentage of National Wilderness Preservation System within the State of Idaho

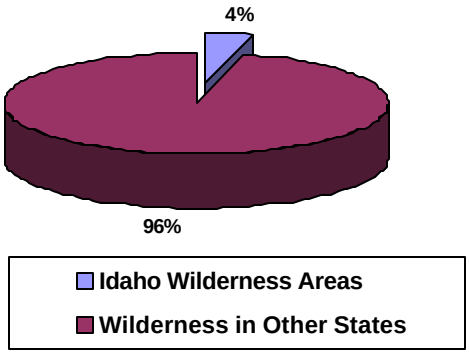


Table C-3. Wilderness Acres by State within the National Wilderness System*

State	Net Wilderness Acres	Number of Wild. Areas	State	Net Wilderness Acres	Number of Wild. Areas
Alabama	41,367	3	New Hampshire	102,932	4
Alaska	58,182,216	47	New Jersey	10,341	2
Arizona	4,529,061	93	New Mexico	1,632,025	23
Arkansas	153,654	12	New York	1,363	1
California	13,977,315	129	North Carolina	111,342	12
Colorado	3,276,064	37	North Dakota	39,652	3
Florida	1,422,325	17	Ohio	77	1
Georgia	485,484	14	Oklahoma	23,113	3
Hawaii	142,370	2	Oregon	2,102,606	39
Idaho	4,005,621	6	Pennsylvania	9,031	2
Illinois	29,688	8	South Carolina	60,681	7
Indiana	12,945	1	South Dakota	73,970	2
Kentucky	16,779	2	Tennessee	66,349	11
Louisiana	17,024	3	Texas	85,333	6
Maine	19,392	3	Utah	796,418	15
Massachusetts	2,420	1	Vermont	59,421	6
Michigan	247,325	14	Virginia	166,641	16
Minnesota	815,154	3	Washington	4,333,622	30
Mississippi	10,683	3	West Virginia	80,852	5
Montana	3,442,416	15	Wisconsin	42,323	6
Nebraska	12,429	2	Wyoming	3,111,132	15
Nevada	792,623	15	**Totals**	**104,543,579**	**620**

* States not listed here do not have any designated wilderness acres.

Wilderness Recommendations from Previous Forest Plans

Additions to the NWPS were recommended in the Records of Decision for the Payette, Boise and Sawtooth National Forest Plans in 1988, 1990, and 1987, respectively. Table C-4 summarizes these recommendations by Forest. Refer to Table C-2 for a summary of wilderness area recommendations on federal lands within the State of Idaho.

Table C-4. Wilderness Recommendations in the 1987-1990 Forest Plans for the Boise, Payette, and Sawtooth National Forests

IRA ID #	Inventoried Roadless Area Name	Net Acres Recommended*	National Forest
02911	Needles	4,000	Boise
02916	Red Mountain	84,300	Boise
02013	Ten Mile/Black Warrior	77,100	Boise
02915	Hanson Lakes Addition	13,500	Boise
	Total	**179,000**	**Boise**
12010	Secesh	115,400	Payette
12911	Needles	91,900	Payette
	Total	**207,300**	**Payette**
14915	Hanson Lakes	18,500	Sawtooth
14920	Boulder/White Clouds	186,100	Sawtooth
14921	Pioneer Mountains	61,000	Sawtooth
	Total	**265,600**	**Sawtooth**

*****Acres listed in this table use the current GIS methodology of acreage calculation, which varies slightly from the acres published in the 1987-1990 Forest Plans. Acres are rounded off to nearest 100. Forest totals may differ slightly due to rounding.

Wilderness Recommendations in the Preferred Alternative

Additions to the NWPS were recommended in Alternatives 1B, 2, 3, 4, 6, and 7 in the Forest Plan Revision process. These additions include wilderness recommendations for the Preferred Alternative in the DEIS, as shown in Table C-5. Acres of each IRA for each Forest are also displayed to provide a sense of the proportion of the IRA that is recommended. Wilderness recommendations for all the alternatives are displayed in Chapter III of the EIS.

Table C-5. Wilderness Recommendations in the Preferred Alternative, Alternative 7, for the Boise, Payette, Sawtooth, and Salmon-Challis National Forests

IRA ID #	Inventoried Roadless Area Name	IRA Acres By Forest*	Net Acres Recommended For Wilderness Designation*	National Forest
02911	Needles	29,900	4,300	Boise
02916	Red Mountain	110,400	86,100	Boise
02013	Ten Mile/Black Warrior	118,800	79,900	Boise
02915	Hanson Lakes	17,600	13,600	Boise
	Totals	**276,700**	**183,900**	**Boise**
12010	Secesh	248,200	115,400	Payette
12911	Needles	131,300	91,900	Payette
	Totals	**379,500**	**207,300**	**Payette**
14915	Hanson Lakes	39,900	18,500	Sawtooth
14920	Boulder/White Clouds	322,700	184,400	Sawtooth
14921	Pioneer Mountains	119,600	61,000	Sawtooth
	Totals	**482,200**	**263,900**	**Sawtooth**
06920	Boulder/White Clouds	140,100	35,300	Salmon-Challis
06921	Pioneer Mountains	169,400	51,500	Salmon-Challis
06915	Hanson Lakes	13,500	0	Salmon-Challis
06916	Red Mountain	4,900	0	Salmon-Challis
	Totals	**327,900**	**86,800**	**Salmon-Challis**

* Acreages have been re-calculated using GIS methods and rounded to the nearest 100 acres.

Wilderness Use

Since passage of the 1964 Wilderness Act, wilderness areas in the United States have increased dramatically. Not surprisingly, wilderness use has also increased, by an estimated 150 percent since 1964, averaging a 4.4 percent growth per year. Growth in National Forest wilderness use has exceeded that of many other kinds of recreation taking place in the National Forest System (Cordell et al. 1990). Recreation use of both Forest Service and NPS Wilderness areas is expected to increase in the future. Visitor use of Wilderness areas on the national forests are forecast to grow between 0.5 percent and one percent each year for the next 50 years (Loomis et al. 1999).

The Forest Service is the largest provider of outdoor recreation in the nation and in the State of Idaho. The Forest Service manages more wilderness, IRAs, and total land area than any other federal agency in the state. From 1980 to 1996, the number of recreationists visiting the National Forests increased by 300 million. Current use of wilderness areas within or adjacent to the Ecogroup—the Hells Canyon Wilderness, Sawtooth Wilderness, and the Frank Church-River of No Return (FCRONR) Wilderness--has also increased during this time period.

The increased use of wilderness might be attributed to a growing population base, an increase in the availability of wilderness areas, and an increased awareness of the social and biological values of wilderness (Cook and Borrie 1995, Ewert and Hollenhorst 1997). In the 1990s (April 1, 1990 to July 1, 1999), Idaho's population grew by 24 percent, the third fastest state in the country. Most growth is a result of in-migration from other states (Population Reference Bureau). The population in Idaho in 1999 was 1,252,000; by 2015 it is expected to be 1,622,000 (US Bureau of the Census 1999).

The projected dispersed recreation use expressed in Recreational Visitor Days (RVDs) for 2005, 2010, 2015, and 2020, shows projected increases for all Ecogroup Forests (Table C-6). An RVD is determined by calculating 12 hours of recreation use in any combination of persons and hours. Most of this use is currently occurring in roaded areas, even though about two thirds of the Ecogroup land base is comprised of IRAs and designated wilderness.

Table C-6. Ecogroup Area Projected Dispersed Recreation Use in RVDs

Year	Boise	Payette	Sawtooth
2005	1,353,230	1,139,346	1,196,865
2010	1,471,357	1,235,245	1,292,467
2015	1,589,140	1,330,301	1,387,335
2020	1,694,155	1,414,685	1,474,146

Ecogroup Area Wilderness Use

Recreation use in Hells Canyon National Recreation Area (HCNRA) is estimated to increase 1.6 percent per year from 1996 to 2006. Because use is concentrated along the Snake River corridor and the Seven Devils area, there has been concern that increased use may cause these areas to exceed acceptable social encounter thresholds. It has been estimated that visitor encounter rates in the Seven Devils areas may approach maximum limits on holidays and weekends by 2009 due to concentrated use by summer backpackers and outfitters and guides.

The Sawtooth Wilderness is a popular recreation area that has experienced overcrowding at popular lakes and camp areas primarily during the summer months. From 1975 to 1994, there was a 60 percent increase in use. In 1994, the wilderness had over 34,000 visitors despite extremely dry and smoky conditions. According to the National Visitor Use Monitoring Results, visitation within the Sawtooth Wilderness was estimated to be a total of 33,000 visits in 2000. Problems arising from increasing use include increased trampling and erosion, user conflicts, litter, human waste disposal, and displaced wildlife at high-use sites. There are other parts of the wilderness, however, that receive relatively little use. Levels, types and patterns of use vary within the wilderness depending upon the access portal. Most of the access portals on the eastern flank of the wilderness from the Sawtooth Valley and Stanley Basin receive large levels of day use activities. Day hiking, horseback riding, and sightseeing comprise a large share of the activities associated with these trailheads. Uses associated with trailheads along the northern and western flanks tend to be more overnight uses with longer lengths of stay such as backpacking and horse camping.

The FCRONR Wilderness has also experienced an increase in visitors, most of them river-based. The Middle Fork Salmon River and Salmon River had a 34 percent and 29 percent increase in the number of visitors, respectively, from 1985 to 1995. These amount to a 3.0 percent and 2.5 percent annual growth rates respectively for those two rivers for the same period. The land-based recreation in this huge area, however, is widely dispersed except at a few concentrated use areas. The land-based recreation use was estimated to be 167,548 service days in 1995. Due to the lack of historic data for levels of land-based recreation use, it is difficult to determine exact rates of growth but local observation indicates that it is continuing to increase as well.

Trends in Wilderness Uses

Trends in wilderness uses include an increase in adventure recreation activities (mountaineering, backcountry skiing, and whitewater boating); an increase in non-traditional users (older visitors, people with disabilities, and minorities); an increase in the outfitter market; a growing recognition of the non-recreational values of wilderness uses (habitat and ecosystem preservation, scientific research, and education); and a growth in the Wilderness Experience Program industry, which uses wilderness programs for personal growth teachings, leadership development, and therapy (Ewert and Hollenhorst 1997, Cook and Borrie 1995, Friese et al. 1998).

In the 1990s, rapid and relatively cheap transportation permitted fast travel to destination vacations anywhere in the United States. Forms of transportation such as off-road vehicle driving, including motorcycles, snowmobiles, and four-wheel drive all-terrain vehicles, have gained popularity since 1960, and permitted access to more remote areas on public lands (Cordell et al. 1990). Although these types of vehicles are not allowed within wilderness, they can be used to access wilderness portals, many of which are at the end of long, native-surfaced roads.

Overall, the majority of recreationists use non-wilderness areas to recreate. However, an increased number of visitors are seeking out more remote experiences offered by wilderness areas. Public lands that are not designated wilderness or IRAs, have little remote backcountry acreage due to increased road developments (Cordell et al. 1990). This access limits the ability to have a remote experience in these areas. A 1998 survey indicated that 56 percent of those polled felt there was not enough wilderness in the United States (Cordell et al. 1998). Another study found that there does appear to be a recreational demand for additional designated wilderness and that designating additional acres to the NWPS is likely to increase recreational use of wilderness areas (Loomis 1999).

There are individuals and interest groups that consistently demand more wilderness designation, while there are other individuals and interest groups that claim that this country already has more wilderness than it needs, but the Forest Service must consider the social need for wilderness in a context larger than personal or group opinion. The Forest Service recognizes that there exists an essential social need for wilderness and other wild areas to provide a more primitive type of recreational experience.

Ecosystem Representation

The context for determining the need for ecosystem representation in the National Wilderness Preservation System is based upon the ecoregion descriptions developed by Robert G. Bailey in *Descriptions of the Ecoregions of the United States* (Bailey 1995). Nationwide, 261 different ecosystem types have been identified based on biophysical factors. Of these, about 157 ecoregions, also referred to as provinces, are now represented in the NWPS (Landres, personal communication 02/05/02). The goal of ecosystem representation is to represent different ecosystem types in a preservation-oriented system such as the NWPS, to meet biological (landform representation and biodiversity) and social needs (outdoor recreation opportunities).

All of the National Forest System lands within the Ecogroup area lie within three ecoregions. The Middle Rocky Mountain Steppe-Coniferous Forest-Alpine Meadow (M332) Ecoregion consists of the Blue Mountains, Salmon River Mountains, and basins and ranges of southwestern Montana comprising approximately 81,800 square miles (52,352,000 acres). The Intermountain Semi-Desert (342) Ecoregion consists of the Columbia and Snake River plateaus, and the Wyoming Basin comprising approximately 159,100 square miles (101,824,000 acres). The Great Plains-Palouse Dry Steppe Province (331) consists

of the Rocky Mountain Piedmont, Upper Missouri Basin Broken Lands, lying to the east of the Rocky Mountain range, as well as the Palouse grassland of Washington and Idaho that lie to the west. These lands comprise approximately 290,700 square miles (186,048,000 acres).

Acres of designated Wildernesses within these Ecoregions are shown in Table C-7.

Table C-7. Ecoregion Representation in the National Wilderness Preservation System

Ecoregion	Total Acres of Ecoregion Within NWPS	Percent of Ecoregion Within NWPS
M332	5,926,665	11.32%
342	344,894	0.34%
331	492,851	0.26%

With 5,926,665 acres of representation, Ecoregion M332 is represented to a much greater extent than either 342 or 331, which have 344,894 and 492,851 acres, respectively. From an ecological perspective, there might be greater reason for inclusion in the NWPS for those IRAs within Ecoregions 342 and 331, given their lower level of representation. The Forest Service defines adequate representation of an ecosystem to include two or more distinct examples of at least 1,000 acres (Loomis et al. 1999). However, there are no absolute "minimums" for representation. Wilderness recommendations must consider a number of factors that are based on individual IRA characteristics. Past wilderness recommendations have not included IRA lands within Ecoregions 342 and 331 due to other factors such as small size, lack of strong wilderness character, lack of special features, potential commodity uses, and lack of strong public interest. Wilderness recommendations are not based solely upon NWPS ecoregion representation but rather on a combination of favorable characteristics for capability, availability, need, and public interest.

The majority of the total land base and the IRAs within the Ecogroup lies within the M332 Ecoregion. Almost 92 percent of the area within the Ecogroup lead IRAs lies within this Ecoregion. This Ecoregion is relatively well represented, with an estimated 11 percent of the Ecoregion included in the NWPS in 22 separate examples of at least 1000 acres. Within the Ecogroup, the Hells Canyon, Sawtooth, and FC-RONR Wildernesses, and most of the IRAs, are representative of the M332 ecosystem type.

Nineteen Ecogroup IRAs lie entirely or partially within the 342 Ecoregion, comprising only about 7 percent of the area within the Ecogroup lead IRAs. This Ecogregion is represented to a far less extent than M332 within the NWPS. Seven separate examples of at least 1,000 acres, comprising only 0.3 percent of this large Ecoregion, are currently included within the NWPS.

Only a portion of one Ecogroup IRA (Cottontail Point/Pilot Peak) occurs within the 331 Ecoregion, comprising less than 1 percent of the area within the Ecogroup lead IRAs. This large Ecogregion is represented to an even lower extent than either M332 or 342 within the NWPS. Thirteen separate examples exceeding 1,000 acres, comprising less than 0.3 percent of this large Ecoregion, are currently included within the NWPS. Acreage distribution of the Ecogroup IRAs among all the above Ecoregions, is displayed in Table C-8.

Table C-8. Ecoregion Distribution of Ecogroup IRAs*

Ecoregion	Total Acres of Ecogroup IRAs within Ecoregion	Percent of Area within Ecogroup Lead IRAs within Ecoregion
M332	3,300,891	91.93%
342	267,469	7.45%
331	22,344	0.62%

* Acreages are compiled on a lead Forest basis and include portions of some Salmon-Challis and Nez Perce IRAs and do not include portions of some Boise and Sawtooth IRAs.

CONSEQUENCES OF WILDERNESS OR NON-WILDERNESS RECOMMENDATION

The individual descriptions found in this section address the environmental consequences of wilderness or non-wilderness designation. Some effects are the same for all roadless areas. In other cases, non-wilderness designation outcomes may vary depending on whether the management prescription assigned to an IRA allows development activities or not. These general effects are described by resource topic, below, for the general types of management that may occur as a result of designation or non-designation as wilderness.

Air

Effects of Wilderness/Non-wilderness Designation - Smoke and related particulate matter may increase during the summer season as a result of recent changes in management policies for wildland and prescribed fire that emphasize the restoration of fire as an ecosystem process. There would be no expected net change to air quality specifically from a wilderness or non-wilderness designation. Wildland fires may be managed for resource benefits, which may result in short-term degradation in air quality. Neither a wilderness nor non-wilderness designation would preclude the use of prescribed fire, which may also result in short-term impacts to air quality. Air quality may be affected by management outside of wilderness or by sources of ambient air pollutants off the Forests.

Soil and Water

Effects of Wilderness Designation - The natural functions of watershed systems would be maintained. The risk of human-cause alterations of the watershed condition would be significantly reduced. Soil productivity and water quality would fluctuate within ranges defined by natural processes. Instream flows for all multiple use purposes would be asserted.

Additional commitment of the soil resource would occur as a result of the construction of new trails. Additional reductions in soil productivity would occur from soil compaction, displacement, and erosion in areas of concentrated recreation use. These effects would be greatest in areas around streams and lake and where outfitting and guiding operations are based. Additional impacts on soil and water resources from motorized use would be eliminated. The use of artificial means to rehabilitate areas in degraded condition would be severely restricted.

Effects of Non-wilderness, Non-development - The effects would be the same as described for a wilderness designation, except that previously authorized motorized uses and related soil erosion would continue.

Effects of Non-wilderness, Development - The natural functions of watershed systems would be affected by development. The threat of soil erosion from associated motorized uses and land-disturbing development would increase with the degree of use. However, active rehabilitation efforts could be undertaken to mitigate resource degradation areas. Compaction from recreation use in popular visitation areas would likely continue.

Fish

Effects of Wilderness Designation - Under a wilderness designation, natural processes would affect the evolution of fish and their habitat. Natural fire and climatic variation would maintain sedimentation, riparian vegetation, and nutrient cycles. These processes are the same as those that affected anadromous fish populations before Euro-American settlement. Fish stocking programs would be permitted to continue in areas of historic stocking under either a wilderness or non-wilderness designation.

Effects of Non-wilderness, Non-development - The effects would be expected to be similar to that described for a wilderness designation. However, continuation of previously authorized motorized uses would be expected to increase sedimentation, with potentially adverse effects to riparian habitat and nutrient cycles.

Effects of Non-wilderness, Development - Natural processes that affect fish evolution and their habitat would be interrupted to a degree commensurate with development activities. Motorized uses, road construction, and other land-disturbing activities may increase sedimentation and potentially adversely affect riparian habitat and nutrient cycles.

Wildlife

Effects of Wilderness Designation - As natural succession progresses, climax vegetation types would dominate in the absence of disturbance such as fire, favoring those species that depend on old forest habitats. Wildlife species that need openings and immature forest habitats would find less available. Opportunities to manipulate habitat for the benefit of wildlife species would be substantially reduced. Changes in populations may become more cyclic under a wilderness designation. Wildlife harassment from motorized uses would be eliminated and habitat fragmentation would be minimized.

Effects of Non-wilderness, Non-development - The effects to wildlife would be similar to that described for wilderness, except that previously authorized motorized uses would likely continue, which could result in some level of wildlife harassment and possible displacement. Habitat fragmentation would also be minimized due to the lack of development activities.

Effects of Non-wilderness, Development - Vegetation manipulation may result in a greater mosaic of habitat types and associated species diversity. Opportunities to manipulate habitat specifically for the benefit of wildlife species would be available. Fragmentation and loss of habitat from road construction may occur with increased development.

Plants

Effects of Wilderness Designation - Natural ecological succession would be allowed to continue and, over time, return ecological systems to the mean of their historic ranges of variability under a wilderness designation. Levels of insect infestation and disease would reach endemic levels as ecological systems move toward their historic ranges of variability. Wildland fire use to manage resources and prescribed fire might be used under a wilderness or non-wilderness designation to alter plant succession stages.

Dispersal of noxious weeds is generally limited along the trail systems and river corridors. Monitoring and detection of infestation is often infrequent in wilderness areas, thus allowing for noxious weeds to establish and expand prior to discovery. Overall plant diversity would be slow to change, but would move towards a dominance of mature trees and old forest habitats.

Effects of Non-wilderness, Non-development - The effects under this designation would be similar to a wilderness designation.

Effects of Non-wilderness, Development - Natural ecological succession could be interrupted by development activities associated with other resource management objectives. Incidents of insects and disease would still occur, but would be more aggressively prevented or managed through vegetation manipulation practices. The use of wildland fire for resource benefits and prescribed fire might be the more limited on these lands in consideration of protection of capital investments and structures. The potential for infestation of noxious weeds are moderate to high in developed and actively managed areas. Soil disturbance associated with such activities could increase the risk of invasion. The ability to detect and treat infestations would be greater than in wilderness areas and thus infestations could be prevented or contained. Overall plant diversity would depend on the management objectives for the area.

Fire

Effects of Wilderness Designation – Because mechanical vegetation management treatments are not allowed in designated wilderness areas, standing vegetation would eventually mature and die, increasing fuel loads and the potential for wildland fire. Wildland fires would be managed according to wilderness fire management plans. Actions on wildland fires could include wildland fire use to manage resources, or implementation of a suppression action. Considerations in implementing any action include considerations of firefighter and public safety, cost efficiency, the potential spread of fire to adjacent non-wilderness lands, air quality impacts, etc. Suppression strategies and tactics employed would be employed in a manner that reduces impacts of the actions on wilderness values.

Prescribed fire may be used in wilderness to restore desired fuel loadings and vegetation types, patterns, and structure consistent with wilderness ecology. It may also be used to prevent, where necessary, the spread of wildfire to or from a wilderness, or to protect features such as structures. Prescribed fire is only initiated under the direction of approved wilderness fire management plan.

Effects of Non-wilderness, Non-development - The effects would be expected to be similar to that described for a wilderness designation. However, the tactics available for wildfire suppression would probably be less limited without a wilderness designation. The effects relative to wildland fire use and prescribed fire would be similar to those under wilderness designation.

Effects of Non-wilderness, Development - Response to insect and disease outbreaks can generally be more direct and rapid under these forms of management. The full range of suppression tactics is most likely to be available for use. However, the use of wildland fire for resource benefits and prescribed fire might be more limited on these lands in consideration of protection of capital investments and structures.

Insect and Disease

Effects of Wilderness Designation – Forest stands in designated wilderness would be more likely to age past maturity and provide an environment for potential insect and disease build-up. If insect and disease occurrences build up within protected areas, they may eventually threaten vegetation on adjacent, unprotected lands as well. Generally, no insect or disease control would be permitted within wilderness unless lands in other ownership or resources outside the wilderness are threatened. Suppression treatments will then employ the means most compatible with preservation of wilderness values.

Effects of Non-wilderness, Non-development - The effects would be expected to be similar to that described for a wilderness designation. However, the tools available for suppression of outbreaks would probably be somewhat less limited without a wilderness designation.

Effects of Non-wilderness, Development – Response to insect and disease outbreaks can generally be more direct and rapid under these forms of management. A greater range of suppression tools and treatment options would also provide a higher level of success in containing the extent of the outbreak and in protecting adjacent resources.

Domestic Livestock Grazing

Effects of Wilderness Designation – Grazing of livestock is permitted within wilderness areas where grazing was established at the time that the wilderness was designated. Domestic livestock grazing activities are permitted in accordance with guidelines in the House of Representatives Report No. 96-1126. Corrals, fences, and water developments essential to sustain current permitted domestic livestock levels will be allowed. The location of the development and types of materials use will harmonize with the wilderness character of the area in order to reduce the impact of man-made objects on the natural-appearing environment.

Effects of Non-wilderness, Non-development - In many cases, the forms of structures needed for grazing management such as water developments and fencing have little impact and may be compatible with non-development forms of management. There would likely be few effects on current grazing practices and improvements.

Effects of Non-wilderness, Development – Current grazing practices and improvements would likely be the least changed under this form of management and could continue to the extent that they did not adversely affect other resources or interfere with the primary resource objectives for the area.

Minerals

Effects of Wilderness Designation - Under a wilderness designation, mineral exploration and development would be limited to leases and claims in existence at the time of wilderness designation. Holders of valid mineral leases retain the rights granted by the terms and conditions of the specific leases. Holder of valid mining claims are allowed to conduct operations necessary for the development, production, and processing of mineral resources. Mechanized equipment, motorized access, and utility corridors may be used. However, these activities and the reclamation of all disturbed lands must minimize the impact on the surrounding wilderness character.

Effects of Non-wilderness Designation – These lands would be open to mineral exploration and development under the 1872 Mining Laws Act except where specifically withdrawn for other purposes. Although a full range of activities may be allowed and employed, developments and activities might be adjusted to mitigate adverse impacts to other resources where appropriate.

Recreation

Effects of Wilderness Designation – While recreational use of wilderness is generally encouraged and expected, the principal emphasis of wilderness management direction is to manage recreation use to minimize the evidence of human use and provide outstanding opportunities for solitude and primitive recreation. To accomplish this task requires certain restrictions on recreational use within wilderness that are not necessarily needed for the same activities outside wilderness. In some cases, wilderness designation has served to elevate an area's visibility to the public, increasing its popularity and its recreation use. Increased use can result in increased damage to trails and other resources, as well as reductions in opportunities for solitude and other wilderness values. Only primitive, non-mechanized access and recreation activities are permitted in wilderness, and only those facilities required for the safety of users and protection of wilderness resources are provided. Convenience facilities are not provided. Existing opportunities for mountain bicycling, ATV travel, snowmobiling, and off-highway motorcycling would be lost as a result of wilderness designation. Existing outfitter and guide services operating within these areas may need to be modified or eliminated to meet wilderness requirements.

Effects of Non-wilderness, Non-development – Current recreation uses would likely be the least changed under this form of management. Access would not necessarily be restricted to wilderness-compliant forms and current activities and practices could continue to the extent to that they didn't adversely affect other resources.

Effects of Non-wilderness, Development - Development activities can reduce the primitive recreational character of a roadless area through a combination of altered recreation settings, experiences, and access. The sights and sounds of human presence are usually increased by development activities. Recreationists seeking a primitive experience would choose not to visit such an area, and obvious signs of development would cause the Forest to remove the area from its roadless inventory. At the same time, development may also provide greater recreational access and increased non-primitive recreation experiences. Direct and indirect development effects would also reduce or eliminate the opportunity for Congress to consider the affected area for inclusion into the National Wilderness Preservation System.

Facilities

Effects of Wilderness Designation – A reasonable network of trails and campsites are acceptable facilities in a wilderness, except in areas to be managed in a pristine condition. In fact, trails leading to and within wilderness areas become the principal management tool for achieving management objectives. Existing structures would be evaluated for management needs relative to wilderness and other resources.

Effects of Non-wilderness, Non-development - Current facilities and trails would likely be the least changed under this form of management and current structures could continue to the extent that they did not adversely affect other resources.

Effects of Non-wilderness, Development – Development under a non-wilderness management prescription could have a number of effects on trails and facilities ranging from enhancement to elimination depending upon the primary resource objectives for the area.

Scenic Resources

Effects of Wilderness Designation – The result of natural succession as it occurs within designated wilderness areas would change the scenic characteristics of the areas over time. This change could be slow, or it could occur quickly as the result of wildfire or insect or disease attack. The result would most likely be a characteristic landscape mosaic representative of how the areas would naturally appear if relatively unaffected by human activity.

Effects of Non-wilderness, Non-development - The effects would be expected to be similar to that described for a wilderness designation.

Effects of Non-wilderness, Development – There would be a greater potential for landscapes that exhibit obvious signs of human presence. Visual Quality Objectives would serve to constrain or modify development to mitigate adverse effects to scenic resources in areas seen from major recreation facilities and use corridors.

SPECIFIC INVENTORIED ROADLESS AREA DESCRIPTIONS AND EVALUATIONS

The following are descriptions and evaluations of the IRAs on the Boise, Payette, and Sawtooth National Forests. Each IRA discussion includes:

a) Description - location, vegetation, terrain and special attractions,
b) Capability – wilderness characteristics such as naturalness and opportunities for solitude or primitive recreation,
c) Availability – the areas known resources and existing uses,
d) Need – proximity to existing wilderness and public interest,
e) Alternatives and Environmental Consequences, and
f) Preferred Alternative – recommendation for the IRA.

Estimations of Potential Outcomes of IRAs

Potential outcomes for individual IRAs under each of the seven alternatives are estimated in two analyses within the Environmental Consequences sections for each IRA: IRA Disposition by Alternative and Potential Future Development. Although, both of these analyses address the potential development or preservation of IRAs, they represent different temporal scales of development potential and involve different analytical elements. Potential outcomes under each of the seven management alternatives for the IRAs are also analyzed collectively for each Forest in Chapter III of the EIS.

The purpose of the first analysis, IRA Disposition by Alternative, is to provide a broad sense of the ultimate disposition likely under assigned management direction for each IRA. It represents the potential, long-term outcomes over the course of probably a century or more of managing the IRAs based solely upon their Management Prescription Category (MPC) assignments. In that it is purely based upon MPC assignment and does not reflect actual resource features or socio-political considerations, the IRA outcome acreages should not be taken literally, but can serve to illustrate likely relative differences between the alternatives. IRA disposition outcomes under each alternative are divided among four different categories:

- Recommended Wilderness (MPC 1.2),
- Maintain Undeveloped Character (MPCs 2.1, 2.2, and 4.1a,),
- Potential Low Levels of Development (MPCs 3.1, 3.2, 4.1b, and 4.1c), and
- Available for a Full Range of Development (MPCs 4.2, 4.3, 5.1, 5.2, 6.1, 6.2, and 8.0).

Two different levels of potential development are distinguished in these categories because of differences among the MPCs relative to differing intensities of development. Although MPCs 3.1, 3,2, 4.1b, and 4.1c, technically allow some forms of development, the types and levels of development activities would be likely to be very limited and infrequent. Timber harvest would not be planned in these MPCs. In contrast, development activities within MPCs 2.4, 4.2, 4.3, 5.1, 5.2, 6.1, 6.2, and 8.0 is likely to be more frequent and intensive and the potential for new road construction and timber harvest is much higher.

The purpose of the second analysis, IRA Potential Future Development, is an effort to provide a more refined sense of the potential development outcomes likely under assigned management direction for each IRA. For the initial Forest Plans, timber sale schedules were used to estimate potential timber development and specific sales were listed. Similar schedules were not developed for this round of planning and the range of resource management activities that result in IRA development have also expanded. As a result, a series of combinations of data elements were used to estimate areas where management activities had the greatest potential to result in development within IRAs. MPC assignments were combined with suited timberlands and areas having high and/or extreme ratings for insect and disease hazard, uncharacteristic wildfire hazard and resistance to fire control to estimate areas of priority timber management, vegetation restoration, fuel reduction, and other activities. It was felt that these analysis elements represent the best practical estimation of the potential for development of any individual IRA given implementation of the revised Forest Plans under each alternative over the next several decades. Even with the refinements beyond MPCs that are comprised in this analysis, potential development predictions are likely to be overestimated compared to the actual development that would be likely to occur under those prescriptions in the next 10 to 15 years. However, these estimates still represent the best guess for the "potential" for development within any given IRA on a programmatic scale.

There is no way to predict with complete surety all the many factors that contribute to or affect future development activities. As such, any prediction of future activities in programmatic planning is likely to vary from what actually occurs during the subsequent implementation period. Again, the results of this analysis should not be seen as an absolute determination of the levels of development that will take place. Instead, they should be viewed more as measures of relative differences in potential IRA development represented by the alternatives.

The individual IRA discussions are organized by lead Forests in the following order, Boise, Payette, Sawtooth. Detailed descriptions are not included for the two IRAs for which the Salmon-Challis National Forest has the lead (Blue Bunch, Loon Creek).

Table C-9. Inventoried Roadless Areas within the Boise, Payette, and Sawtooth National Forests

IRA ID # (04+)	IRA Name	Net Acres	National Forest	Page
02019	Bald Mountain	6,236	Boise	C-27
02025	Bear Wallow	9,133	Boise	C-31
02029	Bernard	20,886	Boise	C-35
02036	Black Lake	5,321	Boise	C-40
02006	Breadwinner	20,476	Boise	C-44
02035	Burnt Log	23,697	Boise	C-48
02038	Cathedral Rocks	8,203	Boise	C-52
02028	Cow Creek	14,717	Boise	C-56
02002	Danskin	30,627	Boise	C-60

IRA ID # (04+)	IRA Name	Net Acres	National Forest	Page
02020	Deadwood	52,468	Boise	C-64
02022	Elk Creek	14,990	Boise	C-69
02007	Grand Mountain	14,462	Boise	C-74
02017	Grimes Pass	13,289	Boise	C-78
02018	Hawley Mountain	7,726	Boise	C-82
02001	House Mountain	25,596	Boise	C-86
02041	Lost Man Creek	12,678	Boise	C-90
02003	Mt. Heinen	12,788	Boise	C-94
02034	Nameless Creek	2,277	Boise	C-98
02026	Peace Rock	191,712	Boise	C-102
02042	Poison Creek	4,854	Boise*	C-107
12042	Poison Creek	389	Payette	C-107
02032	Poker Meadows	676	Boise	C-111
02008	Rainbow	31,466	Boise	C-115
02916	Red Mountain	110,350	Boise*	C-120
06916	Red Mountain	4,895	Salmon-Challis	C-120
02010	Reeves Creek	10,540	Boise	C-126
02005	Sheep Creek	70,336	Boise	C-130
02924	Snowbank	34,211	Boise*	C-135
12924	Snowbank	1,518	Payette	C-135
02012	Steel Mountain	23,482	Boise	C-140
02027	Stony Meadows	13,553	Boise	C-144
02013	Ten Mile/Black Warrior	118,772	Boise	C-148
02033	Tennessee	1,016	Boise	C-154
02031	Whiskey	4,962	Boise	C-158
02009	Whiskey Jack	6,563	Boise	C-162
02021	Whitehawk Mountain	8,964	Boise	C-166
02040	Wilson Peak	7,950	Boise	C-170
12009	Big Creek Fringe	1,083	Payette	C-175
12912	Caton Lake	45,417	Payette*	C-179
02912	Caton Lake	39,104	Boise	C-179
12006	Chimney Rock	8,534	Payette	C-184
12004	Cottontail Point/Pilot Peak	92,929	Payette	C-188
12018	Council Mountain	16,567	Payette	C-193
12005	Crystal Mountain	13,004	Payette	C-198
12016	Cuddy Mountain	41,006	Payette	C-203
12006	French Creek	88,816	Payette	C-208
12001	Hells Canyon/Seven Devils Scenic	29,651	Payette	C-214
12925	Horse Heaven	13,445	Payette*	C-219
02925	Horse Heaven	4,299	Boise	C-219
12019	Indian Creek	4,832	Payette	C-224
12913	Meadow Creek	8,014	Payette	C-229
02913	Meadow Creek	21,290	Boise*	C-229
12911	Needles	131,264	Payette*	C-234
02911	Needles	29,890	Boise	C-234
12002	Patrick Butte	80,676	Payette	C-240

IRA ID # (04+)	IRA Name	Net Acres	National Forest	Page
12008	Placer Creek	6,944	Payette	C-245
12922	Rapid River	57,676	Payette*	C-249
1-922	Rapid River	20,846	Nez Perce	C-249
12010	Secesh	248,251	Payette	C-255
12017	Sheep Gulch	5,815	Payette	C-261
12007	Smith Creek	2,285	Payette	C-265
12014	Sugar Mountain	10,340	Payette	C-269
14039	Blackhorse Creek	7,709	Sawtooth	C-275
14003	Black Pine	43,970	Sawtooth	C-279
14920	Boulder/White Cloud	322,732	Sawtooth*	C-284
06920	Boulder/White Cloud	140,089	Salmon-Challis	C-284
14018	Buttercup	56,654	Sawtooth	C-291
14007	Cache Peak	26,541	Sawtooth	C-296
14002	Clear Creek	6,558	Sawtooth	C-301
14010	Cottonwood	11,338	Sawtooth	C-305
14019	Elk Ridge	9,335	Sawtooth	C-310
14023	Fifth Fork Rock Creek	16,568	Sawtooth	C-314
14915	Hanson Lakes	39,917	Sawtooth*	C-319
02915	Hanson Lakes	17,650	Boise	C-319
06915	Hanson Lakes	13,533	Salmon-Challis	C-319
14016	Huckleberry	7,653	Sawtooth	C-325
14040	Liberal Mountain	10,531	Sawtooth	C-330
14937	Lime Creek	83,519	Sawtooth*	C-334
02937	Lime Creek	13,473	Boise	C-334
14011	Lone Cedar	6,787	Sawtooth	C-339
14012	Mahogany Butte	21,029	Sawtooth	C-344
14006	Mt. Harrison	29,958	Sawtooth	C-349
14017	Pettit	3,099	Sawtooth	C-354
06921	Pioneer Mountains	169,371	Salmon-Challis	C-359
14921	Pioneer Mountains	119,559	Sawtooth*	C-359
14001	Raft River	23,999	Sawtooth	C-365
14922	Railroad Ridge	42,905	Sawtooth*	C-369
06922	Railroad Ridge	7,913	Salmon-Challis	C-369
14914	Smoky Mountain	304,159	Sawtooth*	C-374
02914	Smoky Mountain (South Boise/Yuba)	42,938	Boise	C-374
14005	Sublett	7,125	Sawtooth	C-380
14009	Third Fork Rock Creek	14,258	Sawtooth	C-384
14013	Thorobred	6,076	Sawtooth	C-389
06923	Blue Bunch	6,126	Salmon-Challis*	**
02923	Blue Bunch	4,881	Boise	**
06908	Loon Creek	106,373	Salmon-Challis*	**
14908	Loon Creek	3,157	Sawtooth	**

* Denotes lead Forest in shared IRA.

**Wilderness recommendation for this IRA is evaluated and displayed in the Salmon-Challis National Forest Land and Resource Management Plan.

Additional Information

As with the other analyses presented in the EIS, the data and information presented in this appendix represents a summary of the full analyses that were completed for this purpose. More detailed information—including analytical procedures, assumptions, and data sources—can be found in the Wilderness Evaluation Technical Report in the project record.